DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Solid and Hazardous Waste Commission/Hazardous Materials and Waste Management Division

REGULATIONS PERTAINING TO SOLID WASTE SITES AND FACILITIES

6 CCR 1007-2 Part 1

[Editor's Notes follow the text of the rules at the end of this CCR Document.]

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PART A GENERAL REQUIREMENTS AND INFORMATION CONCERNING ALL SOLID WASTE DISPOSAL SITES AND FACILITIES IN THE STATE OF COLORADO

SECTION 1 ADMINISTRATIVE INFORMATION

Applicable to all existing or new solid waste facilities.

1.1 GENERAL INFORMATION

1.1.1 Authority These regulations are promulgated pursuant to the "Solid Wastes Disposal Sites and Facilities Act", Title 30, Article 20, Part 1, Colorado Revised Statutes (CRS), as amended. These regulations replace and supersede the "Solid Wastes Disposal Sites and Facilities Regulations", adopted February 16, 1972, and effective April 1, 1972.

1.1.2 Referenced materials This document may refer to documents produced by other agencies. All cited references are for that reference that is valid on the particular date of adoption of the pertinent section of these regulations and do not include later amendments or editions of the incorporated material. Copies of the referenced material may be reviewed during normal business hours at the Colorado Department of Public Health and Environment. Information on accessing the referenced documents may be obtained by contacting the:

Colorado Department of Public Health and Environment
Program Manager
Solid Waste Section
Hazardous Materials and Waste Management Division
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
Phone: (303) 692-3300

1.2 DEFINITIONS

"Abandoned facility" means facility in operation after the initial enactment of the Solid Waste Disposal Sites and Facilities Act in 1967 that has ceased operations without implementing a closure plan in accordance with the regulations that were in effect on the date of closure.

"Act" means the "Solid Wastes Disposal Sites and Facilities Act", Title 30, Article 20, Part 1, CRS, as amended.

"Active life" means the period of operation beginning with the initial receipt of solid waste, and ending at completion of closure activities in accordance with these regulations.

"Active operating area" means an area that includes all areas of unloading, bailing, compacting, storing and out loading.

"Active portion" means that part of a facility or unit that has received or is receiving wastes and that has not been closed in accordance with these regulations.

"Adequate cover" means:

(a) Daily cover: At least six inches (6") of earthen material or other suitable material placed over the exposed solid waste at the end of each operating day, or at such frequencies as needed to prevent or minimize nuisance conditions, and

(b) Intermediate cover: At least one foot (1') of earthen material or other suitable material placed over solid wastes in areas left temporarily unused for at least one month, but not finally closed; and

(c) Final cover: Final cover design should be selected from alternatives presented in Subsection 3.5.3.

"Adequately wet" means sufficiently wet to minimize visible emissions of dust and/or debris within the regulated work area (RWA) and either:

a. Prevent the release of visible emissions from leaving the RWA in accordance with Section 5.5 of these regulations; or

b. Demonstrate that asbestos fibers are not leaving the RWA above risk-based air thresholds.

The observance of visible emissions, outside of the RWA, of dust and/or debris may be an indication that soils are not adequately wet.

"**Adjacent Receptor Zone"** means an area of uncontrolled access at a distance of 150' or less from the nearest Regulated Work Area (RWA) boundary during active Regulated Asbestos Contaminated Soil (RACS) disturbance. For the purpose of this definition, highways, streets, and roads without sidewalks, where only vehicles are permitted, are considered to be areas of controlled access and therefore not adjacent receptor zones. For the purpose of this definition "vehicle" means a device that is capable of moving itself, or of being moved, from place to place upon wheels, including bicycles and electrical assisted bicycles. For the purpose of this definition, an area for which access is not ordinarily controlled that is closed to the public during soil disturbing activities in the adjacent RWA is considered to be an area of controlled access and therefore not an adjacent receptor zone.

"Agent of a wholesaler" as used in Sections 10 and 16 of these Regulations mean a person who is authorized by the Wholesaler to act for or in place of the Wholesaler to transact the Wholesaler's business as it relates to the distribution of new tires, lubricating oil, or new lead-acid batteries to retailers and the transportation of waste tires, used oil, or used lead-acid batteries to a separate Wholesaler engaged in the business of recycling collection.

"Agricultural wastes" means all solid wastes resulting from the raising of crops or animals on land zoned agricultural by local requirements, including animal manures, that are returned to the soils as fertilizer, soil conditioners or compost or are composted to return to the soils. In addition, agricultural waste means all carcasses and carcass by-products resulting from any mass livestock mortality that is the result of an all-hazards event or depopulation ordered by the state veterinarian or other appropriately designated authority. {*This definition is effective through December 31, 2018*}

"Agricultural wastes" means all discarded or residual plant materials or animal materials that directly result from the raising of crops or animals, including animal manures, that are 1) returned to the soils as fertilizer, soil conditioners or compost or 2) are composted to return to the soils, or 3) are used for other agricultural purposes. In addition, agricultural waste means all carcasses and carcass by-products resulting from any mass livestock mortality that is the result of an all-hazards event or depopulation ordered by the state veterinarian or other appropriately designated authority. {*This definition becomes effective on January 1, 2019*}

"Air Monitoring Specialist" (**"AMS"**) means a person trained and certified, in accordance with the requirements of Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B), for the collection of air samples to determine airborne particulate and/or asbestos concentrations.

"Air pollutant" means any fume, smoke, particulate matter, vapor, gas or any combination thereof which is emitted into or otherwise enters the atmosphere. "Air pollutant" includes, but is not limited to, any physical, chemical, biological, radioactive (including source material, special nuclear material, and by-product material) substance or matter. "Air pollutant" does not include water vapor or steam condensate.

"Air pollution" means any detectable concentration of one or more air pollutants in the ambient air that has caused, is causing, or if unabated may cause injury to human, plant or animal life, or injury to property, or which unreasonably interferes with the comfortable enjoyment of life or property.

"Airport" means an airport open to members of the public without prior permission and without restriction, within the physical capabilities of the facility.

"All-hazards event" means the occurrence of any catastrophic event or incident that is either natural, such as a blizzard, fire, flood, tornado, earthquake, or disease outbreak or man-made and that could be of biological, chemical, radiological, nuclear or explosive origin.

"Alternative Daily Cover" means at least three inches of earthen material or other suitable material placed over the exposed solid waste at the end of each operating day, or at such frequencies as needed to prevent or minimize nuisance conditions.

"Amended application" means a document which proposes modifications to an existing facility that constitutes a change in operations to that existing site or facility.

"**Anaerobic digestion**" means a series of biological processes in which microorganisms break down biodegradable materials in the absence of oxygen. Anaerobic digestion of biodegradable materials creates biogas.

"Ancillary equipment" means any device such as, but not limited to, piping, fittings, flanges, valves, and pumps that is used to distribute, meter, or control the flow of material from its point of generation or transport to a storage or treatment tank(s), between material storage and treatment tanks to a point of disposal onsite, or to a point of shipment for disposal off-site.

"Ancillary Worker" means a worker that has not completed the training under Section 5.5.3(A) and (B) of these regulations.

"Animal Waste" means compostable materials generated by the customary and generally accepted activities, practices, and procedures that farmers and ranchers engage in during the production of poultry and livestock including manures and animal mortalities. Animal Waste also includes non-agricultural and non-human animal excreta. Animal waste does not include food processing residuals such as paunch.

"Antineoplastic" means acts to prevent, inhibit, or halt the growth of a tumor.

"Applicant" for the purposes of Section 10.12 means any person or business seeking a rebate from the Waste Tire End Users Fund.

"Application for a certificate of designation" means all documents, data and drawings which are submitted, for review, by an applicant to a governing body having jurisdiction. The application shall contain the site location, the type of facility, the engineering design and operations report which includes, but is not limited to, geological, hydrological, engineering and operational data for the design, operation, closure and post-closure of the facility. This information shall be prepared in accordance with these regulations and all local requirements.

"Approved site or facility" means a site or facility for which a certificate of designation has been obtained, pursuant to the Act.

"Aquifer" means a geologic formation, group of formations, portion of a formation or unit capable of yielding significant quantities of ground water of usable quantity to wells or springs.

"Architectural paint" means an interior or exterior architectural coating sold in a container of five gallons or less.

"Area of Contamination" (**"AOC"**) means a discrete, discernible area of known RACS.

"Areas susceptible to mass movement" means those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at beneath, or adjacent to the facility because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil flection, block sliding, and rock fall.

"Asbestos" means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), amosite (cummingtonite-grunerite), anthophyllite, actinolite and tremolite.

"Asbestos-containing material" ("ACM") means any material that contains more than one percent (1%) asbestos.

"Asbestos waste" means any asbestos-containing material whether it contains friable or non - friable asbestos, that is not intended for further use. This term includes but is not limited to asbestos mill tailings, asbestos from pollution control devices, and containers that contain asbestos.

"Asbestos waste disposal area" means an area approved for the disposal of asbestos waste at a solid waste facility, including, but not limited to, a trench or monofill.

"Ash" means the bottom ash, fly ash or air pollution control residues and other residues of the combustion process from the operation of an incinerator or energy recovery facility, including the combustion of any municipal, commercial or industrial solid waste.

"ASTM Standard D6270" means the American Society for Testing and Materials Standard entitled "Standard Practice for Use of Scrap Tires in Civil Engineering Applications", effective on December 15, 2017. ASTM Standard D6270 is incorporated by reference to include the version in effect as of the date this regulation was adopted, and does not include later amendments to the incorporated material. Materials incorporated by reference are available for public inspection during normal business hours from the Hazardous Materials and Waste Management Division, 4300 Cherry Creek Drive South, Denver, CO 80246.

"Authorized signature" means the signature of an individual who has authority to sign on behalf of and bind an individual or corporation.

"Autoclave" means a strong, pressurized, steam heated vessel used for sterilization. When used as a verb the term means the process of sterilization accomplished through the use of such a vessel.

"Backyard Composting" means composting on a residential property utilizing Type 1 and 2 feedstocks but with no more than 100 cubic yards in process at one time.

"Barrier layer" means a continuous layer of material designed and constructed to restrict horizontal and/or vertical migration of leachate from the facility. A "barrier layer" may contain both manufactured and natural materials. The term is also used in cap construction to prevent fluids from migrating vertically through the cap.

"Base flood" means a flood that has a one percent chance of recurring in any year, or a flood of a magnitude equalled or exceeded once in 100 years, on the average over a significantly long period.

"Beneficial use" means the use of solid waste as an ingredient in a manufacturing process, or as an effective substitute for natural or commercial products, in a manner that does not pose a threat to human health or the environment. Avoidance of processing or disposal cost alone does not constitute beneficial use.

"Beneficial user" means a person who uses solid waste as an ingredient in a manufacturing process or as an effective substitute for natural or commercial products, in a manner that does not pose a threat to human health or the environment. Avoidance of processing or disposal cost alone does not constitute beneficial use.

"Beneficial user" as used in Section 10, means a person who uses solid waste for energy recovery in a manufacturing process or as an effective substitute for natural or commercial products, in a manner that does not pose a threat to human health or the environment. Avoidance of processing or disposal cost alone does not constitute beneficial use.

"Biohazardous waste" means solid waste containing or contaminated with organisms or viruses infectious to humans, animals or plants (e.g. parasites, viruses, bacteria, fungi, prions, or rickettsia).

"Biosolids" means the accumulated residual product resulting from a domestic wastewater treatment works. Biosolids does not include grit or screenings from a wastewater treatment works, commercial or industrial sludges (regardless of whether the sludges are combined with domestic sewage), sludge generated during treatment of drinking water, or domestic or industrial septage.

"Bird hazard" means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft of injuries to its occupants.

"Blood and body fluids" means all waste unabsorbed human and animal blood or blood products, components of blood or blood products, and other body fluids. Includes, but is not limited to, human blood; plasma; serum; platelets; other blood components and blood products; body fluids including exudates, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid and amniotic fluid; suction and irrigation fluids contaminated with blood or body fluids; liquid residues or contaminated water resulting from the cleanup of a spill of medical waste; tattoo ink contaminated or potentially contaminated with blood or body fluids; and blood and body fluids from animals known to be infected with diseases that are contagious to humans. For purposes of this Part 13, it does not include saliva, nasal secretions, sweat, tears, or urine, feces, or vomitus unrelated to isolation wastes unless visible blood is present.

"Buffings" means the residual rubber material removed from the supporting structure of a waste tire or a retreaded or recapped tire.

"Cashplus marketable securities" means all the cash plus marketable securities held by the local government on the last day of the fiscal year, excluding cash and marketable securities designated to satisfy past obligations such as pensions.

"Certificate of designation" means a document issued by the governing body having jurisdiction to a person authorizing the use of land for a solid waste disposal site and facility pursuant to the Act. The "certificate of designation", which incorporates all information as may be required by the Department and the governing body having jurisdiction, is then issued by the governing body having jurisdiction if the Department has determined that the minimum standards are met.

"Certified Asbestos Building Inspector" (**"CABI"**) means a person trained and certified in accordance with Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B), for the identification of asbestos-containing materials and the collection of samples to determine asbestos content, including qualified Department personnel.

"Closed facility" means a solid waste site or facility that has been closed in accordance with provisions of the federal regulations pursuant to Subtitle D of the federal "Resource Conservation and Recovery Act of 1976", as amended, as published in 40 CFR Part 258.60 or in the manner specified in the approved certificate of designation application at the time of approval of the site or facility, or in a closure plan that has been approved by the Department or prior to the enactment of the Solid Waste Disposal Sites and Facilities Act (C.R.S. 30-20-100.5).

"Collect" as used in Sections 18 of these Regulations means to gather or acquire waste grease from sources of waste grease; except that "collect" does not include moving waste grease from one area or container to another area or container on the same premises.

"Collect water volume" means to provide storage in channels or basins to allow for controlled discharge.

"Collection facility" as used in Section 16 of these Regulations means any facility that accepts, aggregates and stores used oil, used lead-acid batteries, or waste electronic devices generated elsewhere for transport to a location described in Sections 16.2, 16.3, 16.4, and 16.5 of these Regulations.

"Commercial Composting Facility" means any solid waste composting facility that accepts a fee for solid waste composting, or any solid waste composting facility that composts solid waste to create a compost or soil amendment and distributes the finished compost or soil amendment offsite for a fee.

"Commercial wastes" means all solid wastes generated by stores, hotels, markets, offices, restaurants, warehouses, and other non-manufacturing activities, excluding community and industrial wastes.

"Commission" means the solid and hazardous waste commission created in section 25-15-302, C.R.S.

"Community wastes" means all solid wastes generated by the noncommercial and nonindustrial activities of private individuals, including solid wastes from households, yards, streets, sidewalks and alleys.

"Compost" means the material or product which is developed under controlled conditions and which results from biological degradation processes by which organic wastes decompose.

"Compostable Products" means containers, films or foodservice ware such as bowls, plates, cups, cutlery, composed of materials such as vegetable matter, paper, cardboard, and plastics that meet American Society for Testing and Materials (ASTM) Standard D6400-12, as amended (*Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities*) and ASTM Standard D6868-11, as amended (*Standard Specification for Labeling of End Items that Incorporate Plastics and Polymers as Coatings or Additives with Paper and Other Substrates Designed to be Aerobically Composted in Municipal or Industrial Facilities*). These products are labeled in accordance with US Composting Council (USCC) Labeling Guidelines.

"Composting" means the biological process of degrading organic materials that is facilitated and controlled through intentional and active manipulation. These manipulations may include but are not limited to grinding, mixing of feed stocks and bulking materials, addition of liquids, turning of piles, vermicomposting, or mechanical manipulation.

"Compost facility" means a site where compost is produced.

"Compost Feedstock" or **"Feedstock"** means any decomposable organic material used in the production of compost or chipped and ground material including, but not limited to, green wastes, animal material, manure, biosolids, and solid waste.

"Composite liner" means a liner system consisting of two components: the upper component shall consist of a flexible membrane liner (FML) and the lower component shall consist of a compacted soil layer. The FML component must be installed in direct and uniform contact with the compacted soil component.

"Construction and demolition debris" means waste that is generated from construction, remodeling, repairs, or demolition of buildings, pavements, and other structures which includes but is not limited to, lumber, bricks, carpets, ceramics, sheetrock, metals, drywall, window glass, metal and plastic piping, paint and any other non-hazardous materials resulting from construction and demolition operations.

"Construction and demolition debris facility" means a discrete area of land or an excavation which is designed for the final disposal of solid waste which result from the construction or demolition of a building or structure, such as lumber, bricks, concrete, sheetrock and other similar materials.

"Consumer" as used in Section 16 of these regulations means a person who has purchased an electronic device primarily for personal or home business use.

"Consumer product" as used in Section 16 of these Regulations means any device that is primarily intended for personal or household use and is typically sold, distributed, or made available to the general population through retail or mail-order distribution. Such term does not include vehicles, motorcycles, wheelchairs, boats, or other forms of motive power. The term does include, but is not limited to, computers, games, telephones, radios, and similar electronic devices.

"Control water volume" means to discharge at a rate that will not exceed the discharge rate of historic flows at the discharge point or at an appropriate point in the receiving stream.

"Crumb rubber" means rubber granules derived from a waste tire that are less than one-fourth inch in size, and is wire and fiber free.

"De minimis quantities of used oil" as used in Section 16 of these Regulations means small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations; except that the term shall not include used oil discarded as a result of abnormal operations resulting in substantial leaks, spills, or other releases.

"Debris" means any discarded material that contains or consists of any of the following: construction, renovation and demolition debris (regardless of how it was generated), building or facility components, components of building systems (HVAC, plumbing, electrical, control, fire protection, roofing), components of pavement or drainage systems, industrial or machinery components, and/or mechanical components from motorized vehicles.

"Debt service" means the amount of principal and interest due on a loan in a given time period, typically the current year.

"Deficit" means the total annual revenues minus total annual expenditures.

"Department" means the Colorado Department of Public Health and Environment.

"Dewatered" means that the material has been subjected to a process that will remove free moisture from the material as determined by the paint filter test.

"Disease vector" means any animal, insect, bacterium or virus capable of transmitting disease, illness or harm to humans.

"Do-It-Yourselfer (DIY)" as used in Section 16 of these Regulations means an individual who residentially generates "do-it-yourselfer" used oil.

"Do-It-Yourselfer used oil collection center" as used in Section 16 of these Regulations means any site or facility that accepts, aggregates and stores residentially generated used oil collected only from do-it-yourselfers.

"Drop-off site" means a recycling consolidation site with no on-site processing; only collection of materials in a bin, roll-off, or other type of container.

"Dry Weight Basis" means weight calculated on the basis of material having been dried until reaching a constant mass, resulting in essentially a 100 percent solids content.

"Electronic Device" means a device that is marketed by a manufacturer for use by a consumer and that is a computer, peripheral, printer, facsimile machine, digital video disc players, video cassette recorder, or other electronic device specified by rule promulgated by the commission; or a video display device or computer monitor including a laptop, notebook, ultrabook, or netbook computer, television, tablet, or slate computer, electronic book, or other electronic device specified by rule promulgated by the commission that contains a cathode ray tube or flat panel screen with a screen size that is greater than four inches, measured diagonally. "Electronic device" does not include a device that is part of a motor vehicle or any component part of a motor vehicle, including replacement parts for use in a motor vehicle; a device, including a touch-screen display, that is functionally or physically part of or connected to a system or equipment designed and intended for use in any of the following settings, including diagnostic, monitoring, or control equipment: industrial; commercial, including retail; library checkout; traffic control; security, sensing, monitor, or counterterrorism; border control; medical; or governmental or research and development; a clothes washer or dryer; a refrigerator, freezer, or refrigerator and freezer; a microwave oven or conventional oven or range; a dishwasher, a room air conditioner, dehumidifier, or air purifier; or exercise equipment; a device capable or using commercial mobile radio service, as defined in 47 CFR 20.3, that does not contain a video display area greater than four inches, measured diagonally; or a telephone.

"Emergency" means an unexpected situation or sudden occurrence of a serious and urgent nature that demands immediate action and that constitutes a threat to life or health, or that may cause major damage to property.

"Emission" means the discharge or release into the atmosphere of one or more air pollutants.

"Empty container" means a container or inner liner removed from a container that has been emptied by the generator as much as possible using methods commonly used to remove waste or material from containers (e.g., if the material was pourable, then no material can be poured or drained from the container; if the material was not pourable, then no material can reasonably be removed by scraping). In the case of a container that held an acute hazardous waste, the container is considered empty when the container or inner liner has been triple rinsed using a solvent capable of removing the product, the container or inner liner has been cleaned by another method that has been shown to achieve equivalent removal, or the inner liner that prevented contact of the product with the container has been removed.

"Encapsulation" means coating the surface of a solid waste with material such as resins or plastics to substantially reduce the amount of soluble, miscible or suspended contaminants leached from the waste.

"Engineering design" means the analysis and design work prepared for construction, operation and closure of a solid waste disposal site or facility which may contain a preliminary report of design specifications, maps and plans drawn to a convenient and common scale, provides site or facility operation plans and site or facility closure plans, and contains all information and data otherwise specified by these regulations.

"Environmental Media" means earth materials including soil, sand, silt, gravel, rock, stone, sediment, and other naturally occurring solids.

"EP waste disposal facility" means a commercial solid wastes disposal site and facility that accepts the deposit of EP waste.

"Excluded scrap metal" means processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

"Exemption" means, for the purposes of these regulations, that a facility shall be free or largely free of some permitting obligation as specifically provided in the Colorado Revised Statutes, 30-20-102.

"Existing landfill" means any landfill that has received solid waste as of the effective date of these regulation.

"Exploration and production waste" or **"EP waste"** means exploration and production waste, as that term is defined in section 34-60-103, C.R.S. EP waste is currently defined as wastes that are generated during the drilling of and production from oil and gas wells or during primary field operations and that are exempt from regulation as hazardous wastes under subtitle C of the federal "Resource Conservation and Recovery Act of 1976", 42 U.S.C. sec. 6901 to 6934, as amended.

"Explosive gas" means methane or other combustible gases, generated by decomposition in a facility for solid wastes disposal.

"Facility or solid waste disposal facility" means all contiguous land and structures, other appurtenances, and improvements on the land used for solid waste disposal.

"Facility component" for purposes of Section 5.5, means any part of a facility including equipment. For the purpose of this definition, "facility" means (as defined in Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B):

> "any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding: residential buildings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site. For purposes of the definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation or building that was previously subject to this subpart is not excluded, regardless of its current use or function."

"Facility structures" means any building, structure, or utility services trenches, temporary or permanent, at a facility for solid wastes disposal.

"Fault" means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to strata on the other side.

"Fault displacement" means the relative movement of any two sides of a fault measured in any direction.

"Favorable geologic conditions" means that a site selection shall emphasize tight soils, distance from ground water, deep aquifers and similar natural features.

"Floodplain" means lowland areas adjacent to inland surface waters that are inundated by the base flood.

"Food Processing Residuals" means compostable materials generated as a by-product of the industrial food processing sector that are non-toxic, non-hazardous, and contain no sanitary wastewater. The term does not include fats, oil, grease and Dissolved Air Flotation (DAF) skimmings.

"Food Processing Vegetative Waste" means material generated in trimming, reject sorting, cleaning, pressing, cooking, and filtering operations from the processing of fruits and vegetables and the like in food processing and packaging operations or similar industries that process food products. Food processing vegetative wastes include, but are not limited to, tomato skins and seeds, pepper cores, potato peels, cabbage, onion skins, celery pieces, cranberry hulls, cranberry tailings, rice hulls, carrot stems, and coffee grounds.

"Food Residuals" means pre- and post-consumer food discards from households and the commercial/institutional sector including but not limited to vegetables, fruits, grains, dairy products, meats, and compostable foodservice ware/packaging that may be commingled.

"Friable asbestos waste" means any asbestos waste that has been or can be pulverized or reduced to powder by hand pressure when dry.

"Friable asbestos-containing material" ("Friable ACM") means any material that contains asbestos and when dry can be crumbled, pulverized, or reduced to powder by hand pressure and that contains more than one percent asbestos by weight, area, or volume. The term includes non-friable forms of asbestos after such previously non-friable material becomes damaged to the extent that when dry it can be crumbled, pulverized, or reduced to powder by hand pressure as determined in the field by a CABI.

"Gas condensate" means the liquid generated as a result of gas recovery process[es].

"Geofabric" for the purposes of Section 5.5 means a permeable fabric or synthetic material used for both visual and physical separation.

"Good faith effort" means the required actions for a county to perform and document before the county commissioners may vote to exempt itself from the residentially generated electronic waste landfill ban.

"Governing body having jurisdiction" means the board of county commissioners if a site and facility is located in any unincorporated portion of a county and means the governing body of the appropriate municipality if a site and facility is located within an incorporated area.

"Green Waste" means any plant material that is either separated at the point of generation, or separated at a centralized facility. Green waste includes, but is not limited to, yard waste, vegetative plant wastes from the vegetable food processing industry, untreated wood wastes, paper products and pre-consumer vegetative food waste.

"Ground water" means any water below the land surface in a zone of saturation.

"Ground water protection standard" means those standards established by following 40 CFR 258.55(H) and (I) methodology or standards established by this Department (5 CCR 1002, effective as of November 20, 2018). The references incorporated herein are in accordance with Section 1.1.2 of these Regulations.

"Hazardous constituent" means the list of chemical parameters described in Appendix IB and II of these regulations and 6 CCR 1007-3, Part 261.3 Appendix VIII.

"Hazardous waste" means those substances and materials defined or classified as such by the Hazardous Waste Commission pursuant to 25-15-302, C.R.S., as amended.

"Health departments" means the Colorado Department of Public Health and Environment and a local health department if such entity exists.

"High wind warning" means that sustained winds of forty miles per hour (40 MPH) or greater, or gust of fifty five miles per hour (55 MPH) or greater, are expected to persist for one hour or longer, as defined by the National Weather Service.

"Holocene" means the most recent epoch of the quaternary period, extending from the end of the pleistocene epoch to the present.

"Home scrap metal" means scrap metal generated by steel mills, foundries, and refineries, including, but not limited to, turnings, cuttings, punchings, and borings.

"Household medical waste" means any medical waste generated by households. Does not include medical waste generated at health and residential care facilities regulated under the Standards for Hospitals and Health Facilities (6 CCR 1011-1).

"Household waste" means any solid waste generated by households, including single and multiple residences, and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day use recreation areas.

"Incineration" means the combustion of solid wastes in such a way as to:

(a) Control the air mixture to maintain adequate temperature for efficient combustion; and

(b) Contain the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(c) Control the emission of combustion byproducts consistent with the standards, rules and regulations promulgated by the Department's Air Quality Control Commission.

"Incompatible wastes" means wastes which, when mixed, produce heat, pressure, fire, explosion, violent reaction, toxic mist, fumes or gases, or flammable fumes or gases.

"Incorporated into the soil" means the insertion of solid waste beneath the surface of soil or the mixing of solid wastes with the surface soil.

"Industrial recycling operation" means any site and facility operated for the purpose of processing, reclaiming, sorting, and recycling recyclable materials generated from industrial operations which includes but is not limited to construction and demolition debris, and other recyclable materials as determined by the Department.

"Industrial wastes" means all solid wastes, including mill tailings and mining wastes, resulting from the manufacture of products or goods by mechanical or chemical processes that are not a hazardous waste regulated under 6 CCR 1007-3, the Colorado Hazardous Waste Regulations. Such waste may include, but is not limited to, construction and demolition debris, and waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include oil and gas wastes regulated by the Colorado Oil and Gas Conservation Commission.

"Inert material" means non-watersoluble and non-putrescible solids together with such minor amounts and types of other materials as will not significantly affect the inert nature of such solids. The term includes, but is not limited to, earth, sand, gravel rock, concrete which has been in a hardened state for at least sixty days, masonry, asphalt paving fragments, and other inert solids.

"Inert material facility" means a site and facility that accepts for disposal exclusively those materials defined herein as inert material.

"Infectious waste" means waste containing pathogens or biologically active material which because of its type, concentration and quantity could present a potential hazard to human health when improperly handled, stored, processed, transported or disposed of. Wastes presumed to be infectious medical waste include blood and body fluids, potentially infectious waste, pathological waste, sharps, trauma scene waste, and any additional waste determined to pose a sufficient risk of infectiousness as determined by the Department on a case-by-case basis. This also includes any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill of any infectious medical waste. For purposes of these regulations, it does not include saliva, nasal secretions, sweat, tears, used feminine hygiene products, vomitus, urine or feces unrelated to isolation wastes, uncontaminated disposable bedding or garments, or lightly to moderately contaminated bandages, garments, etc. unless these wastes are soiled to the extent that the generator of the waste determines that they should be managed as infectious waste. Such wastes remain regulated under the provisions of Parts 1 through 3 of these regulations.

"Intermediate processing facility" means a facility designed to remove recyclables from unprocessed municipal solid waste, commonly referred to as a Dirty-MRF.

"Isolation waste" means contaminated material from humans or animals that are isolated because they are suspected or known to be infected with an infectious agent capable of causing a highly communicable, possibly lethal disease. National biosafety guidelines developed by agencies such as the U.S. Department of Health and Human Services, National Institutes of Health or the Centers for Disease Control and other medical professionals should be referenced when making this determination.

"Karst terrains" means areas that are characterized by surface and subterranean features, and that are developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrains include, but are not limited to sinkholes, sinking streams, caves, large springs, and blind valleys.

"Land application facility" means an area where solid wastesss are applied onto or incorporated into the soil surface for the purposes of biological degradation, treatment, final disposal, or beneficial purposes.

"Land disposal" as used in Section 16 of these Regulations means placing, discarding, or otherwise disposing of residentially generated solid wastes:

(a) In any solid wastes disposal site and facility, transfer station, or treatment, storage or disposal facility operated by the state, a local government, or a private entity;

(b) In sewers, drainage systems, septic tanks, surface or ground waters, watercourses, or any body of water; or

(c) On the ground.

"Landfill" means a discrete area of land or an excavation where solid wastes are placed for final disposal, which is not a land application unit, waste impoundment, or waste pile. Landfills include, but are not limited to, ash monofills, construction and demolition landfills, industrial landfills, sanitary landfills, tire monofills and similar facilities where final disposal occurs.

"Landfill phase" means a subpart of a landfill.

"Lateral expansion" means any horizontal expansion of previously approved waste management unit boundaries for which the Department has not approved as-built construction documents.

"Leachate" means liquid that has passed through or had contact with solid wastes and may contain soluble, miscible, or suspended constituents removed from the wastes.

"Lead-acid battery" as used in Section 16 of these Regulations means a battery that:

(a) Consists of lead and sulfuric acid;

(b) Is used as a power source; and

(c) Is not intended as a power source for consumer products.

"Leak tight" means that solids, liquids, or gases cannot escape or spill out. It also means dust tight.

"Liner" means a continuous layer of natural or man-made materials beneath and on the sides of a waste impoundment or landfill which restricts or prevents the downward or lateral escape of solid waste, its constituents, or leachate. A liner is also used in cap construction to prevent and control vertical movement of fluids.

"Liquid waste" means any waste material that is determined to contain "free liquid".

"Lithified earthen material" means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include manmade materials, such as fill, concrete, and asphalt, or unconsolidated earthen materials, soil, or regolith lying at or near the earth surface.

"Local governing authority" means the governing body having jurisdiction.

"Local requirements" means all zoning, laws, resolutions or ordinances related to or enforced on solid waste disposal promulgated by counties, municipalities or other political subdivisions of the state and the specifications and requirements identified as part of a certificate of designation.

"Low Emissions Methods" means soil disturbing activities that will not result in visible emissions without the use of wet methods.

"Lower explosive limit" means the lowest percent, by volume, of a mixture of explosive gas or gases in air that will propagate a flame at 25°C (77°F) and at standard atmospheric pressure.

"Lubricating oil" as used in Section 16 of these Regulations means the fraction of crude oil or synthetic oil used to reduce friction in motorized equipment. "Lubricating oil" includes rerefined oil.

"Management" means the handling, storage, collection, transportation and disposal of solid waste.

"Manifest" as used in Section 18 of these Regulations means the document for identifying the quantity, composition, origin, routing, and destination of waste grease during its transportation from the point of generation to the point of storage, treatment, or disposal.

"Manure" means accumulated animal excrement. This includes feces and urine, as well as any bedding material, spilled feed, or soil that is mixed with feces or urine.

"Material recovery facility (MRF)" means a facility consisting of structures, machinery, devices, or persons to sort, bale, or otherwise manage or process source separated recyclable materials prior to conveyance to end markets.

"Maximum horizontal acceleration in lithified earth material" means: (1) The maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90 percent or greater probability that the acceleration will not be exceeded in 250 years; or (2) The maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

"Mechanical" means operated or produced by mechanism, tool or machine.

"Medical Waste" means any infectious, pharmaceutical or trace chemotherapy waste generated in a health care setting in the diagnosis, treatment, immunization, or care of humans or animals; generated in autopsy or necropsy; generated during preparation of a body for final disposition such as cremation or interment, generated in research pertaining to the production or testing of microbiologicals; generated in research using human or animal pathogens; or related to accident, suicide, or other physical trauma. Medical waste does not include fluids, tissues or body parts removed from the whole body for the purposes of donation, research or other use, or those returned to the person from whom they were removed, or their authorized representative, as long as the material is rendered safe for handling. For purposes of these regulations, this does not include medications reused in compliance with 6 CCR 1011-1 Chapter II Part 7.200 et. seq. or 6 CCR 1015-10.

"Medical waste generator" means any person, as defined in these regulations, whose act or process produces medical waste. This includes, but is not limited to, generators at hospitals, clinics (such as medical, dental and veterinary), surgery centers, dialysis centers, blood banks, long term care facilities, hospices, funeral homes, laboratories (such as clinical, diagnostic, pathological, veterinary and biomedical research), pharmacies, body art establishments (such as where body piercing, tattooing, branding, sculpting and scarification are performed), acupuncture facilities, trauma scene cleanup sites, facilities holding shot clinics or health fairs, other health-related facilities or events, educational and research facilities, and pet shops.

"Medical Waste Management Plan" means a document that must be developed and implemented by medical waste generators that designates all of the medical wastes generated by the facility, waste handling techniques to be used at the facility, contingency plans for spills or releases, staff training requirements, and designation of the person responsible for implementation of the management plan.

"Medical waste treatment" means any validated method, technique, or process designed to change the biological character or composition of a medical waste so as to minimize its potential to harm human health or the environment.

"Mill tailings" means an industrial solid waste generated by the mechanical or chemical processing of minerals for subsequent conversion into useable forms such as a metal, a metallic compound, an energy source, or raw material for manufacture.

"Minimum access" means the lack of infrastructure within a county as specified in Section 16 that would result in a county being able to pursue an exemption from the residentially generated electronics waste landfill ban.

"Mining waste" means overburden to be discarded and other industrial wastes directly related to the preparation, development and operation of mineral extraction facilities. Mining waste includes only waste material directly connected with the cleaning and preparation of substances mined by an operation are managed at the mine site where they are generated.

"Mixed Solid Waste" means a mixture of compostable and non-compostable discards and may contain household and other municipal solid wastes.

"Mobile Processor" means a person who processes waste tires at a location other than the location of the person's certificate of registration.

"Monofill" means a landfill or section of landfill at which only one type of waste is accepted for disposal.

"Motor vehicle" means a self-propelled vehicle that is designed for travel on the public highways and that is generally and commonly used to transport persons and property over the public highways or a low speed electric vehicle. "Motor vehicle" includes automobiles, minivans, all trucks, motor homes, and motorcycles.

"Municipal solid waste" means solid waste from household, community, commercial and industrial sources that does not contain hazardous wastes as defined in Section 25-15-101(9) of the Colorado Hazardous Waste Act unless otherwise regulated by the Department.

"Municipal solid waste landfill (MSWLF)" means a sanitary landfill where one of the main waste streams accepted is municipal waste.

"Municipal solid waste incinerator ash" means the bottom ash, fly ash or air pollution control residues and other residuals of the combustion process from the operation of incinerator or energy recovery facilities managing municipal solid waste.

"Municipality" means a home rule or statutory city, town, or city and county, or territorial charter city.

"National Priorities List (NPL)" means the list, compiled by the U.S. Environmental Protection Agency pursuant to section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §9605, of uncontrolled hazardous substance releases in the United States that are priorities for long-term remedial evaluation and response. For the purposes of this regulation, this term also includes sites that have been deleted from the NPL following completion of the cleanup, but for which there are required, ongoing operation and maintenance activities (including the implementation of institutional controls).

"Noise pollution" means sound levels radiating from the site boundary, at a distance of twenty five feet (25') or more, in excess of standards established in Sections 101 and 103 of the "Colorado Noise Abatement Act", Title 25, Article 12, Part 1, CRS, as amended.

"Noncommercial burning of trash" means the combustion of solid wastes in accordance with CRS 30-20-110 of the Act.

"Nonfriable asbestos waste" means any asbestos waste other than friable asbestos waste.

"Non-Regulated Asbestos Contaminated Soil" ("Non-RACS") means soil or debris that contains only:

1) Intact non-damaged, non-friable asbestos-containing materials (ACM); or,

2) Damaged non-friable ACM(s) that do not have a high probability to release fibers based on the forces expected to act upon the material during disturbance as determined in the field by a CABI(s) through a "RACS Determination". The following ACM(s) are predetermined to be Non-RACS:

   a. Resin based materials including but not limited to phenolic-plastic (Bakelite), used in electrical and mechanical parts

   b. Resilient flooring (vinyl, asphalt, rubber) excluding non-tar impregnated friable felt backing on sheet vinyl flooring (linoleum)

   c. Tar impregnated or asphaltic materials in good condition that have not become brittle

   d. Elastic, pliable, or rubberized materials, including but not limited to:

      i. Pliable duct sealant

      ii. Pliable fiberglass insulation sealant

      iii. Pliable fire-stop caulking /sealants

      iv. Pliable window and door caulking

   e. Extremely hard materials, coatings and sealants including but not limited to:

      i. Laboratory countertops and sinks

      ii. Epoxy type Concrete Masonry Unit (CMU) coatings

      iii. Epoxy type panel adhesive

      iv. Duct sealant

      v. Ceiling tile adhesive

   f. Other ACM(s) as approved by the Department at the request of the owner or person disturbing debris, to not have a high probability to release fibers.

"Nuisance conditions" are those which may result from explosive gas, bird hazards, disease vectors, odors, windblown solid wastes or cover materials, open burning, water pollution, air pollution, noise pollution and traffic congestion.

"On-site recycling" means recycling operations where the processing of recyclable materials occurs on the same site or under the same ownership from where the recyclable materials are generated and that recycle and store only materials generated on site or under continuous ownership and meet the performance standards set forth in Section 8.

"Open burning" means the uncontrolled or unconfined combustion of solid wastes at a facility for solid waste disposal without the following: Control of combustion air to maintain adequate temperature for efficient combustion; containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and control of the emission of the combustion products.

"Operator" means the person(s) responsible for the overall operation of a facility or part of a facility.

"Other Compatible Materials" means the minimum quantity of materials necessary to achieve and maintain an appropriate porosity, moisture level or carbon to nitrogen (C:N) ratio for proper composting. Such materials are limited to Type 1 feedstocks, manure and green wastes as defined in Section 1 and Subsection 14.1.2 of these Regulations, or other materials approved by the Department and governing authority.

"Owner" means the person(s) who owns a facility or part of a facility.

"Paint producer" means an original producer of architectural paint that sells, offers for sale, or distributes architectural paint within or into Colorado under either the producer's own name or a brand that the producer manufactures.

"Paint stewardship organization" means a corporation, nonprofit organization, or other legal entity created or contracted by one or more producers to implement a paint stewardship program.

"Paint stewardship program" means a program created in accordance with Section 25-17-405 C.R.S.

"Pathogens" means disease-causing organisms.

"Pathological waste" means all tissues, organs, limbs, products of conception, and other body parts removed from the whole body. Includes, but is not limited to, tissues; organs; body parts removed during surgery, autopsy or other medical procedures; and human anatomical remains. Also includes contaminated animal tissue (including animal carcasses and body parts) from animals known to have been exposed to infectious substances during research, production of biologicals, testing of pharmaceuticals, or other exposures and those known or suspected of being contaminated with infectious substances known to be contagious to humans. This does not include contaminated animal waste that is regulated under Section 14 of these regulations.

"Peripheral" as used in Section 16 of these regulations means a keyboard, mouse, or other device that is sold exclusively for external use with a computer and provides input or output into or from a computer.

"Person" means an individual, partnership, private or municipal corporation, firm, board of metropolitan district or other sanitation district, or other association of persons.

"Person" as used in Section 16 of these Regulations means an individual. "Person" shall not include waste haulers, as defined in this Section.

"Personal use of waste grease as biofuel" means that the person collecting or transporting the waste grease intends to use the waste grease as biofuel.

"Personal use of waste grease other than for use as biofuel" means that the person collecting or transporting the waste grease intends to use the waste grease for some other purpose than biofuel.

"Pharmaceutical" means any prescription or over-the-counter chemical product, vaccine or allergenic that is intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in humans or animals. This includes, but is not limited to, drugs, pills or tablets; medicinal gums or lozenges; medicinal liquids, ointments and lotions; intravenous (IV) or other compounded solutions; live vaccines; non-hazardous attenuated vaccines; allergenics; medicinal shampoos; antiseptics; medicinal dermal patches; and any delivery devices with the primary purpose to deliver or dispense a medicinal chemical product, vaccine or allergenic.

"Pilot" or **"Pilot Project"** means a restricted composting operation at an existing or new facility where the specific purpose is to investigate an alternative feedstock or to research operational methods.

"Point of compliance" as referred to in Section 2.2, 3.2.5 and 3.5 shall be located on land owned by the owner of the site and facility and means either:

(1) For a landfill, a vertical surface which is not more than 150 meters from the waste management unit boundary as described in the engineering design and operations report: or (2) For other sites and facilities a vertical surface that is at the perimeter of the solid waste disposal site and facility boundary.

"Poor foundation conditions" means those areas where geological features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of the facility.

"Potentially infectious waste" means any waste known or suspected to be contaminated with a transmissible infectious agent potentially capable of causing disease or injury. Includes, but is not limited to, cultures and stocks from pathological, medical, research, and industrial laboratories; wastes from the production of biologicals; devices used to transfer, inoculate, and mix cultures; isolation wastes; biohazardous waste, contaminated animal bedding from animals known to have been exposed to infectious substances during research, production of biologicals, testing of pharmaceuticals, or other exposures and those known or suspected of being contaminated with infectious substances known to be contagious to humans. This category also includes items that are capable of releasing blood or body fluids in any form during handling or storage and items that are caked with dried blood or body fluids that could be released during handling or storage; wastes from surgery, autopsy or other medical or laboratory procedures such as visibly contaminated sponges, soiled dressings, drapes, surgical gloves, drainage sets, and dialysis wastes in contact with blood; unbroken blood vials, drainage sets, dialysis wastes, suction canisters, hemovacs, or IV bags and tubing (without needle attached) containing blood or body fluids. This does not include contaminated animal bedding that is regulated under Section 14 of these regulations.

"Practicable solid waste management alternative" means a materials or resource recovery facility, transfer station or any other alternative to the existing landfill, which the owner or operator has determined will, if utilized as an alternate disposal site to solid waste management alternative:

(1) Increase customer's cost for solid waste management services by less than 100%; or

(2) Not result in a solid waste management cost to the local government owner or operator which exceeds one percent of that local government's total annual budget.

"Preliminary report" means an initial report prepared by qualified professionals, including geologists, land surveyors, ground water specialists, engineers and others which contains technical information regarding geologic, engineering and hydrologic data and site information, and other data which the Department deems necessary.

"Process" means any physical, chemical, or biological treatment that is performed to make the waste grease more available for recycling or reuse, reduced for volume or toxicity, or produces a final residual material that is suitable for disposal. "Process" does not include the filtering of waste grease where such filtering takes place in an enclosed grease trap fitter with mechanisms for such filtering.

"Processed scrap metal" means scrap metal that has been manually or physically altered to separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to:

(a) Scrap metal that has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type; and

(b) Fines, drosses, and related materials that have been agglomerated.

"Processed Solid Waste" means the material from a post collection solid waste stream that has been separated for use in the composting process.

"Processing" means performing operations to solid waste and recyclable materials that allows for the purpose of proper solid waste disposal, recycling, composting, or incineration including but not limited to the operations of separating material by type, grade or color, sorting, crushing, grinding, shredding, baling, removing contaminants and modifying material properties.

"Product" means the material or the good generated as a result of processing source separated recyclable materials for which no further processing is required prior to final utilization.

"Project" means any soil disturbing activity that involves Regulated Asbestos Contaminated Soil (RACS) within a planned geographic area(s) of disturbance, as defined in the Notification of RACS Disturbance form submitted for that specific management or remediation scope, starting from the time of first RACS disturbance and continuing through final RACS removal or stabilization and final demobilization. A project may include one or more Regulated Work Areas (RWAs), and start dates and stabilization dates for individual RWAs within a project may be different.

"Project Specific RACS Management Plan" (**"PSRMP"**) means a Regulated Asbestos Contaminated Soil (RACS) management plan for a single project submitted in accordance with Section 5.5.5(A).

"Promptscrap metal" means scrap metal generated by the metal working or fabrication industries, including, but not limited to, turnings, cuttings, punchings, and borings. "Promptscrap metal" includes industrial metal scrap and new scrap metal.

"Public project" means:

(a) A publicly funded contract entered into by a governmental body of the executive branch of this state that is subject to the "Procurement Code", articles 101 to 112 of title 24, C.R.S.; and

(b) A publicly funded contract entered into by a county, municipal government, or special district, including a school district or recreation district.

"Putrescible wastes" means those solid wastes that contain organic matter capable of being decomposed by microorganisms, and of such a character and proportion as to be capable of attracting or providing food for birds or disease vectors.

"Pyrolysis" means the thermochemical decomposition of material at elevated temperatures without the participation of oxygen.

"Qualified ground water scientist" is a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in ground water hydrology, and related fields as may be demonstrated by state registration, professional certifications, professional experience or completion of accredited university programs that enable that individual to make sound professional judgements regarding ground water monitoring, contaminant fate and transport, and corrective action.

"Qualified Project Monitor" (**"QPM"**) means an individual who has the training and/or experience necessary to identify materials suspected of containing asbestos and who has the authority to make prompt decisions relating to the management of such materials, and who meets the training requirements in Section 5.5.3.

"RACS Determination" for the purpose of Section 5.5 means a determination, conducted in the field by a Certified Asbestos Building Inspector (CABI), of the friability of Asbestos Containing Material (ACM) and the probability of non-friable ACM to release fibers based on the condition of the material and the forces that are expected to act on it during disturbance. Determinations of friability shall be based on the requirements for such determinations set forth in Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B). Determinations of the probability for non-friable ACM to release fibers during disturbance shall be based on the following:

1) The condition of the material prior to disturbance, based on observations of weathering, the integrity of the material, historical mechanical impact, or fire damage;

2) The potential for the material to be broken, resized or damaged during planned disturbance;

3) The material shall be considered RACS if the planned disturbance includes any of the following:

    a. Augers

    b. Rotary style trenchers

    c. Driving on ACM lying on the surface (vehicles or equipment)

    d. Blasting or other detonation

    e. Intentional burning

    f. Other types of direct mechanical impact which are:

        i. In direct contact with ACM or result in observation of ACM after disturbance, and

        ii. Causing damage to the ACM

"Recapped or retreaded tire" means a previously worn tire which has gone through a remanufacturing process designed to extend its useful service life.

"Recyclable materials" means any type of discarded or waste material that is not regulated under Section 25-8-205(1)(e), C.R.S., and can be reused, remanufactured, reclaimed, or recycled but not including recycled auto parts or excluded scrap metal that is being recycled, or scrap that is composed of worn out metal or metal product that has outlived its original use, commonly referred to as obsolete scrap.

"Recyclable material end user" includes all manufacturing operations that perform processing of municipal solid waste recyclable materials to be utilized as a raw material for fabrication of a product for normal business operations.

"Recyclable material generator" includes any business or institution that annually generates and consolidates over 100 tons of municipal solid waste recyclable material and ships directly to end markets or processing facilities out of state for recycling.

"Recycling facility" means a separate facility, or a part of a solid waste disposal facility, where recycling operations are conducted.

"Registrant" as used in Section 18 of these Regulations means a person registered under Section 18.

"Regulated Asbestos Contaminated Soil" (**"RACS"**) means soil, ash or debris (plus six (6) inches in all directions of surrounding soil or other matrix material) containing:

1) Friable asbestos-containing materials (ACM) as determined in the field by a Certified Asbestos Building Inspector (CABI) through a RACS determination;

2) Previously non-friable ACM(s) that have been rendered friable as determined in the field by a CABI(s) through a RACS determination;

3) Non-friable ACM(s) that have a high probability of releasing fibers based on the forces expected to act upon the material during soil disturbance as determined in the field by a CABI(s) through a RACS determination;

4) Deteriorated non-friable ACM(s) that are in poor condition resulting in a high probability to release fibers due to weathering, historical mechanical impact, fire damage (by evidence of ACM within an ash layer) or other factors as determined in the field by a CABI(s) through a RACS determination;

5) The following broken, resized, or damaged ACM(s) are RACS:

   a. Asbestos cement materials

   b. Plaster

   c. Brittle caulking, glazing and sealants

   d. Powdery Concrete Masonry Unit (CMU) sealant

   e. Powdery floor leveling compound

   f. Drywall/wallboard and associated joint compound material

   g. Firebrick

   h. Other material as determined by the Department, at the request of the owner or person disturbing debris, to have a high probability to release fibers.

6) Soil or ash known to contain non-visible asbestos based on documented evidence.

"Regulated work area" (**"RWA"**) as used in Section 5.5 of these regulations means the portion(s) of a site at which soil disturbing activities involving RACS occur.

"Remediation" or **"Remediate"** means a cleanup or removal to prevent or minimize the possible current or future release of hazardous substances to prevent an unacceptable threat to present or future public health, welfare or the environment.

"Remedy" or **"Remedial action"** means those actions consistent with a permanent remedy taken instead of, or in addition to, removal action in the event of a release or threatened release of hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health and welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches or ditches, clay cover, neutralization, cleanup of released hazardous substances and associated contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, on-site treatment or incineration, provision of alternative water supplies, any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment, and, where appropriate, post-removal site control activities. The term includes the costs of permanent relocation of residents and businesses and community facilities (including the cost of providing "alternative land of equivalent value" to an Indian tribe pursuant to CERCLA section 126(b)) where the U.S. Environmental Protection Agency determines that relocation is more cost-effective than, and environmentally preferable to, the transportation, storage, treatment, destruction, or secure disposition off-site of such hazardous substances, or may otherwise be necessary to protect public health or welfare; the term includes off-site transport and off-site storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials.

"Remove" or **"Removal"** means the cleanup or removal of released hazardous substances from the environment; such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment; such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances; the disposal of removed material; or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing and other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 104(b) of CERCLA, post-removal site control, where appropriate, and any emergency assistance which may be provided under the Disaster Relief Act of 1974.

"Render non-infectious" means to treat infectious waste by inactivating pathogens and other biologically active material to a level that will no longer present a potential hazard of infection when managed, stored or disposed.

"Residentially generated" as used in Section 16 of these Regulations means used lead-acid batteries, or used oil generated by a person or by removal of said items from a personal vehicle not used primarily for a commercial or business purpose.

"Residual sludge" means solids, semi - solids or liquids remaining in a waste impoundment after final evaporative or other treatment or storage of the waste is completed, or which may be dredged out during the active life.

"Response activity" means remove, removal, remedy, or remedial action, including enforcement activities related thereto.

"Retailer" as used in Section 16 of these Regulations means any corporation, limited liability company, partnership, individual, sole proprietorship, joint-stock company, joint venture, or other private legal entity that engages in the sale of new lead-acid batteries, electronic devices, or lubricating oil directly to the consumer.

"Reverse distributor" means a registrant with the US Drug Enforcement Administration (DEA) who receives controlled substances acquired from another DEA registrant for the purpose of returning unwanted, unusable, or outdated controlled substances to the manufacturer or the manufacturer's agent; or where necessary, processing such substances or arranging for processing such substances for disposal.

"**Risk-Based Air Threshold**" for the purpose of Section 5.5 means one of the following thresholds based on project duration and receptor population, or as approved by the Department, as determined based on the sampling, analytical, and data evaluation procedures provided in Appendix 5A:

a. an average of 0.003 fibers per cubic centimeter (f/cc) for projects with durations of thirty (30) working days or less with child receptors;

b. an average of 0.0003 f/cc for projects with durations between thirty (30) working days and one calendar year with child receptors;

c. an average of 0.006 f/cc for projects with durations of thirty (30) working days or less with only adult receptors, including commercial workers and non-OSHA workers;

d. an average of 0.0006 f/cc for projects with durations between thirty (30) working days and one calendar year with only adult receptors excluding commercial workers and non-OSHA workers;

e. an average of 0.0009 f/cc for projects with durations of between thirty (30) working days and one calendar year with only commercial worker receptors;

f. an average of 0.001 f/cc for projects with durations between 30 days and one year with only non-OSHA worker receptors;

g. if the total duration of the project exceeds, or is anticipated to exceed, one year, the owner/operator shall contact the Department for a project specific risk-based threshold.

"Rubber mulch" is a type of mulch-sized rubber material, which is one-fourth inch to three inches in size, which is made from waste tires, and is wire and fiber free.

"Run-off" means any precipitation or surface water that has not contacted solid waste material and that drains over land from any part of a facility.

"Run-on" means any precipitation or surface water that drains over land on to any part of a facility.

"Rural County" means a county with a population of fewer than sixty thousand residents.

"Sanitary landfill" means a discrete area of land or an excavation for which the final disposal of solid waste employs a method to obtain the most dense volume practicable of the waste and covering with earth or other suitable material. A sanitary landfill may receive household waste, community waste, municipal solid waste, commercial waste, and industrial waste.

"Saturated zone" means that part of the earth's crust in which all voids are filled with water.

"Secondary lead smelter" as used in Section 16 of these Regulations means a facility that recycles lead-bearing scrap materials into elemental lead or lead alloys by smelting.

"Seismic impact zone" means an area with a ten percent or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull will exceed 0.10G in 250 years.

"Self-certification checklist" means a checklist of regulatory requirements applicable to entities affected by one or more Sections of these Regulations.

"Sharps" means any discarded article that may purposely or accidentally puncture or cut the skin or mucosa. Includes, but is not limited to, used needles; scalpel blades; syringes (with attached needle); pen needles; lancets; pasteur pipettes; broken blood vials; needles with attached tubing; suture needles; razor blades; tattoo pens and toothpicks; broken culture tubes and culture dishes, regardless of presence of infectious substances; broken and unbroken glassware that were in contact with infectious substances (e.g., used slides and cover slips); disposable trocars; and discarded unused or expired hypodermic needles, suture needles, syringes, and scalpel blades.

"Sharps container" means a container that is closable, puncture resistant, leakproof on the sides and bottom, and labeled or color coded in accordance with the Occupational Safety and Health Administration (OSHA) requirements.

"Shredded circuit boards" means shredded electronic circuit boards that:

(a) Are stored in containers that are sufficient to prevent any release to the environment prior to recovery; and

(b) Do not contain mercury switches, mercury relays, nickel-cadmium batteries, or lithium batteries

"Significant" means, in the context of differentiating between liquid or semisolid waste streams, a difference of one order of magnitude in the concentration of any constituent.

"Site" or **"solid waste disposal site"** means the location for a facility chosen based upon geologic, hydrogeologic and operational considerations. For the purpose of Section 5.5 of this regulation, "site" means the area or areas where soil-disturbing activities are occurring or will occur.

"Site boundary" means the outermost perimeter of a solid waste disposal site and facility, as designated pursuant to the Act.

"Sludge" means any solid or semi-solid waste generated by a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility.

"Soil-disturbing activities" means digging, excavating, staging, loading, stockpiling, backfilling, compacting, grading, tilling, drilling, intrusive sampling, and equipment or vehicle movement or any other mechanical activity, that when used, disturbs the surface and/or subsurface soil. For the purposes of Section 5.5 disturbance or removal of debris and/or RACS is considered a soil disturbing activity. For the purposes of Section 5.5 hand disturbance or removal of RACS is subject to this regulation, but is not considered to be a mechanical disturbance.

"Solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, air pollution control facility, or other discarded material; including solid, liquid, semisolid, or contained gaseous material resulting from industrial operations, commercial operations or community activities. "Solid waste" does not include any solid or dissolved materials in domestic sewage, or agricultural wastes, or solid or dissolved materials in irrigation return flows, or industrial discharges which are point sources subject to permits under the provisions of the "Colorado Water Quality Control Act", Title 25, Article 8, CRS or materials handled at facilities licensed pursuant to the provisions on "Radiation Control Act" in Title 25, Article 11, CRS. "Solid waste" does not include: (a) Materials handled at facilities licensed pursuant to the provisions on radiation control in Article 11 of Title 25, C.R.S.; or (b) Excluded scrap metal that is being recycled; or(c) Shredded circuit boards that are being recycled.

"Solid waste disposal" means the storage, treatment, utilization, processing, or final disposal of solid wastes.

"Solid waste disposal site and facility" means the location and/or facility at which the deposit and final treatment of solid wastes occur.

"Solid waste incinerator ash" means the bottom ash, flyash or air pollution control residues and other residuals of the combustion process from the operation of incinerator or energy recovery facilities managing solid waste.

"Source of waste grease" means the location at which waste grease was initially generated.

"Source Separated" means solid waste segregated at the point of generation for special handling, disposal, composting or recycling.

"Source Separated Organics" means compostable material that has been separated from non-compostable material at the point of generation, including but not limited to yard waste, food residuals, vegetative waste, woody materials, and compostable products.

"Stabilization" means mixing of a solid waste with Portland cement, or a combination of Portland cement and fly ash or cement kiln dust, to substantially reduce the amount of soluble, miscible or suspended contaminants leached from the waste.

"Staging" for the purposes of Section 5.5, means the accumulation of RACS in the RWA for twelve (12) hours or less.

"Standard Operating Procedure" (**"SOP"**) means a RACS management plan for multiple projects submitted in accordance with Section 5.5.5(B).

"Stockpiling" for the purposes of Section 5.5, means the accumulation of RACS that will exist for more than twelve (12) hours, up to and including ten (10) calendar days.

"Storage" for the purposes of Section 5.5, means the accumulation of RACS greater than ten (10) days, but not exceeding six (6) months unless a longer timeframe is approved by the Department and complies with local governing authority requirements.

"Store" as used in Section 18 of these Regulations means to possess, impound, contain, or control waste grease; except that "store" does not apply to the temporary retention of waste grease on the premises where the waste grease was initially generated.

"Structural component" means liner, leachate collection system, final cover, run-on/run-off control system, or any other component which is used in the construction and operation of the facility and are necessary for protection of human health and the environment.

"Structurally rigid container" means a container capable of maintaining its shape when unsupported.

"Surface water" means water that flows on the land surface, or is tributary to such water.

"Tank" means a stationary device, designed to contain an accumulation of material, that is constructed primarily of non-earthen materials (e.g. wood, concrete, steel, plastic) that provide structural support.

"Tank system" means storage or processing tank(s) and associated ancillary equipment and containment system(s).

"Three year rolling average" means for an existing recycling facility or waste tire processor an arithmetical average of the quantity (by weight or volume) of recyclable materials recycled at the facility during the previous three calendar years. This average shall be at least 75% by weight or volume (determined using a consistent measure) of the total amount of recyclable materials accumulated and currently in storage over a 3-year rolling average.

"Tire" means a rubber cushion that fits around a wheel.

"Tire-Derived Product" means matter that:

(a) Is derived from a process that uses whole tires as a feedstock, including shredding, crumbing, and chipping;

(b) Adheres to established engineering or other appropriate specifications or to established product end user specifications or customer conditions of acceptance.

(c) Has a demonstrated benefit associated with the end use;

(d) Can be used as a substitute for, or in conjunction with, a commercial product or raw material; and

(e) Has either been sold and removed from the facility of a processor or has been used on site by the processor.

"Total expenditures" means all expenditures excluding capital outlays and debt repayment.

"Total revenues" means revenues from all taxes and fees but does not include the proceeds from borrowing or asset sales, excluding revenue from funds managed by the local government on behalf of a specific third party.

"Trace chemotherapy waste" means any empty container used to hold an antineoplastic drug (except P-listed hazardous waste), and contaminated items used with these drugs, such as gowns, wipes, or gloves.

"Trailer" means a wheeled vehicle, without motive power, that is designed to be drawn by a motor vehicle.

"Transfer station" means a facility at which refuse, awaiting transportation to a disposal site, is transferred from one type of containerized collection receptacle and placed into another or is processed for compaction.

"Transport" as used in Section 18 of these Regulations means to use a vehicle to haul, ship, carry, convey, or transfer waste grease from one place to another. "Transport" does not include moving waste generated on site into another on-site container, whether indoors or outdoors.

"Transportation" means transport of persons or property by motor vehicle, bus, truck, railroad, light rail, mass transit, airplane, bicycle, or any other form of transport. Transportation includes pedestrian transportation.

"Trap grease" means the residual yellow grease, waste water, debris principally derived from food preparation or processing, or other waste that is intercepted by and contained in grease traps or grease interceptors.

"Trauma scene waste" means waste generated by the decontamination of accident scenes, crime scenes, suicides and other scenes of serious human injury or death. Trauma scene waste is a special category of medical waste that is comprised of other categories of medical waste, including blood and body fluids, pathological waste, pharmaceutical waste, potentially infectious waste and various types of sharps. This waste stream includes, but is not limited to, contaminated flooring, furniture, drywall, clothing, bedding, cleaning solutions, personal protective equipment (PPE), wipes and absorbents, and sharps contaminated with blood and body fluids or other potentially infectious material.

"Treatment" means performing a type of solid waste disposal, which includes but is not limited to, shredding, baling, liquid evaporation, and nonbeneficial sludge landspreading.

"Ultimate customer" means an individual who actually purchases the tire-derived product and makes final use of the tire-derived product.

"Underground source of drinking water" means an aquifer or its portion:

(a) Which supplies any public water system, or which contains a sufficient quantity of ground water to supply a public water system; and

(b) Currently supplies drinking water for human consumption, or contains fewer than 10,000 mg/l total dissolved solids.

"Unstable area" means a location that is susceptible to natural or man - induced events or forces capable of impairing the integrity of some or all of the landfill structural components which are necessary for the prevention of releases from a landfill. "Unstable areas" can include poor foundation conditions, areas susceptible to mass movements, and karst terrains.

"Uppermost aquifer" means the aquifer nearest the ground surface as well as other aquifers which are hydraulically connected with this aquifer within the facility boundary or adjacent to the facility boundary.

"Used lead-acid battery" as used in Section 16 of these Regulations means any lead-acid battery that is no longer functional or no longer used for its primary purpose.

"Used oil" as used in Section 16 of these Regulations means any residentially generated motor oil, refined from crude oil or a synthetic oil, that has been used and as a result of that use is contaminated by physical or chemical impurities.

"Used tire" means a tire that was previously used as a tire and is graded and classified for reuse as a tire based on specifications and criteria maintained pursuant to section 30-20-1410(1)(a), C.R.S.

"Vegetative Waste" means compostable materials generated by the production, harvesting and processing of agricultural or horticultural plants. These residues include but are not limited to stalks, stems, leaves, seed pods, husks, bagasse, and roots. Vegetative waste also includes woody materials and yard waste. Vegetative waste does not include food processing residuals, oil, grease or dairy wastes.

"Vermicomposting" means an activity that produces earthworm castings through earthworm activity associated with consumption of organic materials.

"Visible" means capable of being seen with the unaided eye.

"Visible emissions" means any airborne or liquid emissions, coming from, or having come into contact with RACS, which are visually detectable without the aid of instruments. Proper disposal of appropriately filtered decontamination water does not constitute a visible emission.

"Visual Inspection" for the purposes of Section 5.5 means observation with sufficient proximity to identify discrete visible materials, while maintaining the safety of the inspector.

"Waiver" for the purposes of these regulations shall mean a formalized process whereby an applicant may request to be excused from specific portions of these regulations. In general a defensible technical argument must be presented and verified before a waiver may be granted.

"Washout" means the carrying away of solid waste by waters of the base flood.

"Waste electronic device" means a residentially generated device managed or deemed as solid waste, originally marketed by a manufacturer that is a computer, printer, facsimile machine, digital video disc player, video cassette recorder, peripheral, radio, stereo, video game console or a video display device or computer monitor including a laptop, television, computer monitor, notebook, ultrabook, netbook, tablet, or electronic book that contains a cathode ray tube or a flat panel screen with a screen size greater than four inches measured diagonally; but does not include any type of telephone.

"Waste grease" means trap grease in a quantity in excess of 25 gallons.

"Waste grease facility" as used in Section 18 of these Regulations means any real property location used for the collection, transportation, storage, processing, or disposal of waste grease, including, without limitation, a processing plant, transfer station, or trans-shipment location. "Facility" does not include a domestic wastewater treatment works as defined in section 25-8-103, C.R.S., that processes waste grease as part of its operations that are regulated by the Department pursuant to Article 8 of Title 25, C.R.S. Facility does not include the real property of a personal user of waste grease.

"Waste grease generator" means a person who initially generates waste grease.

"Waste grease transporter" means a person who transports waste grease.

"Waste hauler" means any individual or any employee or agent of a partnership, private, county, or municipal corporation, firm, board of a metropolitan district, or other association of persons that haul waste under contract, agreement, or as otherwise provided by law, to solid wastes disposal sites and facilities.

"Waste impoundment or impoundment" means a facility or part of a facility that is a natural topographic depression, excavation, pit, pond, lagoon, trench, or diked area. An impoundment, which may be lined with earthen material or synthetic material, is designed for storage, treatment or final disposal of solid waste. Examples of impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

"Waste management unit boundary" means a vertical surface located at the hydraulically downgradient limit of the area to be filled. This vertical surface extends down into the uppermost aquifer.

"Waste pile or pile" means any noncontainerized accumulation of solid, non-flowing waste that is used for treatment or storage or processing.

"Waste stream" means a relatively uniform solid waste, produced by the same or a similar process or generator over time. Different waste streams are distinguished by significantly larger or smaller concentrations of one or more constituents as determined by standard test methods or inspection.

"Waste Tire" means a tire that is modified from its original specifications but not processed into a tire-derived product, is no longer being used for its initial intended purpose as a tire, and is not a used tire.

"Waste Tire Bale" means a temporary use of waste tires that are mechanically compressed and bound into block form and are secured using stainless steel or heavy gauge baling wire.

"Waste Tire Cleanup Program" means the program created by part 14 of article 20 of title 30, C.R.S.

"Waste Tire Collection Facility" means a facility at which waste tires are stored awaiting pickup by a registered waste tire hauler for transportation to a registered waste tire processor or registered waste tire monofill.

"Waste Tire Generator" means a person who generates motor vehicle or trailer waste tires. The term includes new tire retailers, used tire retailers, automobile dealers, automobile dismantlers, public and private vehicle maintenance shops, garages, service stations, car care centers, automotive fleet centers, local government fleet operators, and rental fleet operators.

"Waste Tire Hauler" means a person who transports ten or more waste tires in any one load.

"Waste Tire Monofill" means part or all of a solid waste disposal site and facility that has been issued a certificate of designation and at which only waste tires are accepted.

"Waste Tire Processor" means a person who processes a waste tire into a tire-derived product.

"Water pollution" means the manmade or man-induced alteration of the background physical, chemical, biological or radiological integrity of ground water or surface water.

"Water treatment plant sludge disposal" means the final disposal of the accumulated solids from the processing of raw water in a treatment plant of a municipality or industry.

"Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

"Wetlands" generally include swamps, marshes, bogs, and similar areas.

"Wholesaler" as used in Section 16 of these Regulations means any corporation, limited liability company, partnership, individual, sole proprietorship, joint-stock company, joint venture, or other private legal entity that sells new lead-acid batteries, electronic devices, or lubricating oil for resale.

"Within Vessel Composting" means a process in which compostable material is enclosed in a drum, silo, bin, tunnel, reactor, bag, or other container for the purpose of producing compost.

Woody materials" means residuals and of cutting trees, including but not limited to tree stumps, sawdust, pallets, and dimensional lumber that has not been treated chemically or with adhesives and coatings such as paint, glue, or any other visible contaminant.

"Working day" means Monday through Friday and including holidays that fall on any of the days Monday through Friday.

"Working face" means that portion of a facility for solid wastes disposal where solid wastes are actively unloaded, placed, compacted and covered, at any time of operation.

"Yard Waste" means waste generated from yard maintenance, including garden waste, grass clippings, leaves and branches. Yard waste can also include vegetative materials resulting from the use of commercial products, including but not limited to discarded flowers, potted flowers, or grave blankets that do not include plastic, metal, polystyrene foam, or other nonbiodegradable material.

"Yards per day" means the cubic yardage of material a facility receives at the gate, for each 24 hour period.

"Yellow grease" means used cooking oil, spent shortenings, or other inedible kitchen grease or waste vegetable oil produced by restaurant and food facilities.

"100 Year flood" means a flood that has a 1 percent or greater chance of recurring in any given year or a flood of a magnitude equalled or exceeded once in 100 years, also called (base flood).

1.3 SCOPE AND EFFECTIVE DATE

1.3.1 These regulations are based on the authorities defined and established in the Solid Waste Act, 30-20-100.5, et seq. C.R.S. Under that statute, the siting, permitting and regulation of solid waste disposal sites and facilities is an area of dual jurisdiction; that is, both the Department and local governing bodies having jurisdiction have assigned roles and responsibilities. Due to the dual nature of this process, effective coordination and communication are important to both governmental agencies involved in decisions, approvals and enforcement. The department recognizes that a cooperative relationship must be established with the governing bodies having jurisdiction or with the agency or agencies identified by such bodies as contacts for their jurisdiction. However, these regulations cannot and do not assign to any agency authorities not granted them in statute; nor can these regulations negate or change any authority granted to a local agency under any other statute, regulation or ordinance.

1.3.2 The effective date of these regulations shall be October 9, 1993, with these exceptions.

(A) The financial assurance requirements contained in Section 1.8 of these regulations shall be effective on the date specified in 30-20-104.5(4) C.R.S.

(B) The location, design, operation, closure and post-closure requirements, contained in Sections 3.1, 3.2, 3.3, 3.5 and 3.6 respectively:

(1) Shall be effective April 9, 1994, for existing municipal solid waste landfills that have accepted and continue to accept 100 tons of solid waste per day or less; and,

(2) Shall be effective October 9, 1995, for existing municipal solid waste landfills that, on or before April 9, 1994, submit an application for a waiver under Section 1.5.3.

(C) Provided no solid waste is accepted on or after April 9, 1994, the final cover requirements contained in Section 3.5 shall be effective October 9, 1994, for existing municipal solid waste landfills that have accepted and continue to accept 100 tons of solid waste per day or less.

(D) Provided no solid waste is accepted on or after October 9, 1995, the final cover requirements contained in Section 3.5 shall be effective October 9, 1996, for existing municipal solid waste landfills that, on or before April 9, 1994, submit an application for a waiver under Section 1.5.3.

(E) Unless a further extension is granted by the Department, the ground water monitoring and corrective action requirements contained in Section 2.2.:

(1) Shall be effective October 9, 1994, for existing units or lateral expansions of existing units at municipal solid waste landfills that have accepted and continue to accept 100 tons of solid waste per day or less; and,

(2) Shall be October 9, 1995 for new units or lateral expansions or existing units at municipal sold waste landfills that, on or before April 9, 1994, submit an application for a waiver under Section 1.5.3.

All extensions of the ground water and corrective action requirements, beyond the dates listed in (1) and (2) above, shall be based upon the criteria specified in 40 CFR 258.50 and shall in no way extend beyond October 9, 1996, or otherwise violate the requirements of Subtitle D of RCRA.

(F) In the event an application submitted under subsections (B)(2), (D) or (E)(2) is denied by the Department that municipal solid waste landfill shall comply with all applicable requirements within six (6) months of said denial.

1.3.3 No person shall operate a facility for solid waste disposal, where processing, treatment, or final disposal is performed, at any site without a certificate of designation obtained from the governing body having jurisdiction except as specified in 30-20-102 C.R.S. as amended.

1.3.4 Sites for new solid waste disposal sites and facilities shall comply with these regulations, unless compliance with specific standards is waived by the Department in accordance with Section 1.5 of these regulations.

1.3.5 The construction, operation and closure of all new facilities for solid waste disposal shall comply with designs, specifications and procedures outlined in the certificate of designation application, or in amendments to such applications approved after Department review, and with all applicable local requirements, and with the standards of these regulations.

1.3.6 The construction, operation and closure of all approved facilities for solid waste disposal that were granted a certificate of designation before there were requirements for an engineering design and operations report or that are in operation on the effective date of these regulations, shall comply as a minimum with standards in Section 2 of these regulations.

1.3.7 Solid waste disposal sites and facilities that are exempted from certificate of designation requirements under provisions of Section 1.4 of these regulations shall comply with the applicable standards of these regulations, unless permitted or operated in compliance with regulations pursuant to the “Colorado Mined Land Reclamation Act”, Title 34, Article 32, Section 101, et seq., CRS, as amended; or the “Hazardous Waste Act”, Title 25, Article 15, Parts 1, 2, and 3, CRS, as amended.

1.3.8 Technical guidelines, including specific technical factors, may be developed and issued by the Department to assist applicants, local governments, and the public.

1.3.9 (A) All solid waste disposal sites and facilities are reviewed and approved for a specific owner/operator; a specific waste stream; a specific design; a specific operation plan. Significant changes to the above are required to be approved by the Department. Such approval or denial shall become a part of the operating record. The information describing changes relating to the above items shall be submitted and described in appropriate detail and in a clear and concise format. This is required in order to maintain current information and status on sites and facilities for monitoring and enforcement purposes.

(B) Sites and facilities subject to 40 CFR Part 258 shall submit a compliance information applicable to their site for the compliance plan per Section 3.0.

(C) Nothing in this section shall preclude any review action by the local governing authority under 30-20-100.5 et seq. or appropriate local ordinance or rule.

1.3.10 Statements of the basis and purpose for these regulations have been prepared and adopted by the board of health, and hereby incorporated into these regulations by reference, pursuant to the "Colorado Administrative Procedures Act", Title 24, Article 4, Section 103, C.R.S. 1973, as amended. A statement of basis and purpose for each change in the regulations is drafted to give the reasons for the regulatory change enacted. Copies are on file with the Department.

1.3.11 These regulations shall apply to all solid waste disposal sites and facilities as provided for in CRS 30-20-100.5 and herein.

(A) The minimum standards (Section Two) shall apply to all sites and facilities.

(B) Section 3.0 shall apply to all solid waste disposal landfills and facilities.

(C) Sections 4 through Section 13 are specific to specific waste streams and facilities.

Section Two is meant to be used in conjunction with all other sections. The Department recognizes that all the criteria may not be applicable to all sites, facilities or waste streams.

1.4 EXEMPTIONS

Notwithstanding the provisions in Section 1.3 of these regulations, the following facilities for solid wastes disposal shall be approved sites and/or facilities for which obtaining a certificate of designation under provisions of these regulations shall not be necessary for:

1.4.1 Those sites and facilities at which any person, other than a governmental unit, disposes of his own solid wastes on his own property; provided that the Department has determined, based upon review of an engineering design and operations report prepared and submitted by the operator in accordance with Sections 3.1, 3.2, and 3.3 of these regulations, that the disposal operation will comply with the Act and the applicable regulations of the Department.

1.4.2 Those facilities for solid waste disposal at which any person engaged in mining operations permitted by the Colorado Mined Land Reclamation Board, pursuant to the "Colorado Mined Land Reclamation Act", Title 34, Article 32, Section 101, et seq., CRS 1973, as amended, and its regulations, performs solid waste disposal of mining or other solid wastes generated by such operations within the permitted area for such operations.

1.4.3 Any site and facility operated for the purpose of processing, reclaiming, or recycling recyclable materials shall not be considered a solid wastes disposal site and facility and shall not require a certificate of designation as a solid wastes disposal site and facility; however, a site or facility shall establish an initial accumulation period and shall maintain documentation that proves recyclable materials are being recycled at the site at a rate that approximately equals that rate at which recyclable materials are being collected. Regulations will specify what time periods and volumes of recyclable materials constitute operations that qualify for this exemption and define what materials shall be deemed recyclable materials. Except that recyclable materials shall not include materials that are likely to contaminate ground water or create off-site odors as the result of processing, reclaiming, recycling, or storage prior to recycling.

1.4.4 Those sites where sludge is used beneficially as a fertilizer, soil conditioner, fuel or livestock feed, provided the sludge is certified to have met all applicable regulations of the Department and the Department of Agriculture. In addition, the use of manure as a fertilizer or soil conditioner or the composting on the site of generation of manure with other compatible materials necessary for effective composting as part of standard agricultural practice shall not require a certificate of designation.

1.4.5 Those facilities for hazardous waste disposal that have been issued a certificate of designation pursuant to Title 25, Article 15, Parts 1, 2, and 3, CRS, as amended, and its regulations.

1.4.6 Transfer stations, which shall not be deemed to be a solid waste disposal site and facility, shall not require a certificate of designation and shall meet standards as set forth in Section 7.

1.5 WAIVER PROCESSES AND PROCEDURES

1.5.1 If an applicant wishes to request a waiver of any provision of these regulations, written documentation requesting such waiver or waivers shall be submitted to the Department and the local governing authority. Waiver requests shall be site-specific and shall list those regulations or requirements for which a waiver is being requested. The waiver request shall supply sufficient technical information in a clear and concise format to justify the applicant's request.

Minimum information required for a waiver request shall consist of:

(A) Name and address of the applicant and the owner

(B) Site address and legal description

(C) Site or facility name

(D) County and township, range, section where the site is located.

(E) Type, size, expected active life and operational history of the facility

(F) Geological, hydrologic, and engineering and other such information necessary to support the applicants waiver request

(G) The specific regulatory subsections for which the waiver request is being filed.

(H) Any alternative requirements or performance standards offered in place of the standards requested to be waived.

1.5.2 Based upon written specific waiver documentation, in their consideration of an application, and in the exercise of their regulatory authority to assure compliance with these regulations, the Department after consultation with the governing body having jurisdiction may waive compliance with standards in Sections 2 through 18 provided that the application satisfies criteria (A) and (B) and (C) and (D) below:

(A) The benefits derived from meeting a standard do not bear a reasonable relationship to the economic, environmental, and energy impacts or other factors which are particular to the facility; and

(B) Such waiver is consistent with the purposes of the Act and these regulations; and

(C) Such waiver is not deemed to constitute a major variation from the requirements of these regulations; and

(D) The waiver will not cause or allow the violation of any air or water quality standard or federal or local restrictions.

1.5.3 The Department after consulting with the governing body having jurisdiction, shall waive compliance with the requirements of Section 3.2, "Design Criteria" and Section 2.2, "Ground Water Monitoring and Corrective Action", by owners or operators for new municipal solid waste landfill units, existing MSWLF units and lateral expansions for which the owner or operator has submitted written specific waiver documentation that adequately demonstrates that:

(A) Such owners or operators dispose of less than twenty (20) tons of municipal solid waste daily. The twenty tons per day shall be measured as an annual aggregate average; and

(B) Certification that the hydrogeologic characteristics of the media beneath the site area are such that migration of contaminants from the facility into off-site ground water are unlikely. A minimum criteria will be that the soils beneath the site have a minimum permeability of at least 1×10^{-6} cm/sec and the distance to the nearest aquifer is such that ground water contamination is unlikely; or

(C) There is no evidence of existing ground water contamination from the MSWLF unit indicated by contamination of a well utilizing the uppermost aquifer and located at or adjacent to the MSWLF unit boundary. Documentation to fulfill this characterization requirement can consist of independent field study, or

(1) That no evidence of leachate was indicated through tests utilizing a piezometer at the point of compliance, or

(2) That no evidence of leachate was indicated through a test utilizing a wet/dry monitor at the point of compliance, or

(3) Ground water contamination from the unit is determined not to exist or not likely to occur through use of any other test agreed to by the applicant and department; and

(4) The MSWLF unit serves a community that experiences an annual interruption of at least three consecutive months of surface transportation that prevents access to a regional waste management facility; or

(5) The MSWLF unit serves a community that has no practicable waste management alternative and the landfill unit is located in an area that annually receives less than or equal to 25 inches of precipitation.

1.5.4 A waiver is granted based upon data and information submitted at a given point in time. Anytime that the facility which has been operating under a waiver granted by the Department can no longer meet the waiver criteria, the waiver is void and ceases to exist.

1.6 APPLICATION FOR CERTIFICATE OF DESIGNATION

1.6.1 Any person proposing to operate a facility for solid wastes disposal within the unincorporated portion of any county shall apply to the commissioners of the county in which the site is to be located for a certificate of designation and any person proposing to operate a facility for solid waste disposal within the corporate boundaries of a municipality shall apply to the governing body of that municipality for a certificate of designation.

1.6.2 On the date of its submittal, the application shall be accompanied by a non-refundable fee which has been established by the governing body having jurisdiction and which is based on the costs incurred by that body in the application review and approval processes. The application shall be accompanied by at least five (5) copies or as many additional copies as specified by local requirements, of an engineering design and operations report prepared in accordance with these regulations, unless the proposed solid waste disposal facility is a privately operated Solid Waste-to-Energy Incineration facility not under contract to a county and/or municipality or is a solid waste incineration facility, in which case Sections 1.6 and 11.2 through 11.5 shall apply. The application shall also include all other documents specified by local requirements. After receipt of an application, the governing body having jurisdiction shall forward copies of the application and at least five (5) copies of the engineering design and operations report to the Department for review and a recommendation for approval or disapproval.

1.6.3 Recommendations on certificate of designation applications, including the engineering design and operations report, shall be based upon compliance with the Act and these regulations.

1.6.4 The Department shall conduct a technical review of each application for a certificate of designation for a solid waste disposal site and facility. This review shall have two parts which are defined in the following subsections.

1.6.5 An application for a certificate of designation for a proposed solid wastes disposal site and facility shall be reviewed by the Department to determine if the contents of the application are complete as submitted.

(A) The Department shall make an initial decision concerning the completeness of the application and its associated technical documents within thirty (30) days of the receipt of the application as a referral from the local governing body having jurisdiction. The Department shall base this decision on the content of the application, as submitted. The Department shall notify the applicant and local governing body having jurisdiction whether or not the comprehensive technical evaluation of the application will proceed. This notice shall be provided in writing to both the applicant and the local governing body having jurisdiction.

(B) If the Department fails to provide the applicant and the local governing body having jurisdiction with its written decision concerning the completeness of the application within the specified thirty (30) day period, the application will proceed through the comprehensive review described in Subsection 1.6.6 below.

(C) This initial decision from the Department concerning the completeness of the application will be based only on the completeness of the application as submitted and shall not imply nor indicate anything about the outcome of the subsequent comprehensive technical review. An affirmative decision concerning completeness shall not prevent the Department from asking that the applicant provide additional information or clarifications of the information contained in the application as submitted during the comprehensive technical review described in Subsection 1.6.6 below.

1.6.6 (A) An application for a certificate of designation for a proposed solid wastes disposal site and facility and associated technical documents which have been determined to be acceptable with regard to completeness shall, then, undergo a comprehensive technical evaluation to determine whether the site and facility, as proposed and documented in the submitted information, can meet the requirements of these regulations and the statute under which the regulations were adopted. This comprehensive technical review shall be the basis for the recommendations of the Department to the local governing body having jurisdiction concerning approval or disapproval of the proposed site and facility. Any technical conditions of approval made by the Department in its final report shall be incorporated as requirements in the certificate of designation.

(B) The Department shall complete the comprehensive technical review of each application for a solid waste disposal site and facility within one hundred and fifty (150) days after the completeness review period, specified in Subsection 1.6.6 above, has elapsed.

1.6.7 (A) For each application, upon the completion of the review discussed in Subsection 1.6.6 above, the Department shall evaluate the work load already assigned to solid waste application review staff and the approximate length of time needed to complete these assignments. If it is determined that a comprehensive technical review of an additional application can not be completed within one hundred and fifty (150) days, the Department shall select a contractor from a list of qualified contractors to participate in the review of the application.

(B) Upon selection for participation in the comprehensive technical review of an application for a certificate of designation for a specific solid waste disposal site and facility, the contractor selected shall receive from the Department a copy of all documents submitted as part of the application and shall provide to the Department within seven (7) days of selection: (1) A written statement which verifies that no conflict of interest exists with regard to contractor's previous or current activities and the site or applicant in question in that comprehensive technical review; (2) A work plan which identifies the personnel and schedule for the technical review of the specific application and technical documents submitted as part of that application; and (3) And estimate of the cost for that review based on the contractor's current hourly rates and estimates of work required to participate in the technical evaluation of the application.

(C) Upon receipt of the information identified in (B) above, the applicant shall be notified of the contractor selected and shall indicate whether or not that contractor is acceptable based on the information provided in (B) above. The applicant shall provide to the Department in writing the decision to accept or reject the contractor within two (2) working days after the contractor's submittal is received. If no such decision is received, the contractor selected will be assigned the work.

(D) If the first contractor is rejected by the applicant, a second and final contractor will be selected from the list of qualified contractors and the process contained in Subsection 1.6.8 (B) and (C) above will be repeated.

(E) If neither of the two contractors proposed is accepted, the applicant shall be deemed to have waived the one hundred fifty (150) day review period and the Department will review the application as quickly as the existing work load allows.

(F) An applicant may request that the Department conduct the technical review of an application rather than submit it for review to a contractor. In this case the one hundred fifty (150) day time frame for the technical review is deemed to have been waived and the Department will complete the review as quickly as the existing work load allows.

1.7 SOLID WASTE AUTHORIZATION AND FEES

1.7.1 Authorization The Department is authorized per Section 25-16-104.5, C.R.S. and Section 30-20-109, C.R.S., as amended, to collect solid waste user fees, hourly activity fees and annual facility fees.

1.7.2 **Document Review and Activity Fees**:

(A) **Applicability**: All “Facilities” and “Solid waste disposal sites and facilities”, as defined in Section 1.2 of these regulations, and all facility types listed in Section 1.7.3 of these regulations are subject to the following fees:

(1) **Document Review Fees**: The document review fees shall provide reimbursement to the Department for professional staff and administrative personnel time spent reviewing, evaluating and responding to documents submitted or required to be submitted in connection with open, closed, new, or existing solid waste sites and facilities including, but not limited to, the following:

(a) New applications for solid wastes disposal site and facilities;

(b) Amendments to an original application upon which a certificate of designation has been issued;

(c) Remediation activities concerning open, closed, or old disposal sites or spill and incident cleanups;

(d) Monitoring reports from open or closed facilities requiring monitoring;

(e) Design and operations plans and amendments or modifications thereto;

(f) Closure and post-closure plans and modifications;

(g) Environmental Covenants or associated documents required under § 25-15-320, C.R.S., and

(h) Construction submittals subject to review.

(2) **Activity Fees**: The activity fees shall provide reimbursement to the Department for professional staff and administrative personnel time spent on open, closed, new, or existing solid waste sites and facilities including the following activities related to (A)(1)(a-h) above:

(a) Pre-operation site visit/investigation of solid waste disposal sites and facilities;

(b) The attendance of Department staff at meetings and hearings concerning such applications or amendments meetings;

(c) Preparing for meetings;

(d) Negotiations;

(e) Responding to questions or information requested at meetings with the facility or the facility's representatives;

(f) Preparation for and attendance at public meetings or hearings; and

(g) Responding to questions or information requested at public meetings or hearings.

(3) For purposes of this section, the following terms shall have these meanings:

(a) “Evaluating” includes time spent determining whether the document is complete and adequate for its intended purpose and/or complies with regulatory requirements and may include time spent on site visits, as appropriate;

(b) "Responding" includes Department determinations to, approve with conditions or modifications, request additional information, or disapprove, revoke, reissue, terminate or deny the permit, closure plan or other document;

(c) "Reviewing" includes reviews of information submitted to the Department by the facility or its agents, regardless of whether the documents require a determination by the Department;

(d) "Public meeting" means a hearing that has been publicly noticed.

(4) Upon receipt from the local governing body of an application or amended application for a solid waste disposal site and facility, with the referral for review, the Department will notify the applicant of the Department's:

(a) Receipt of the application or amended application;

(b) The assigned project manager and their contact information;

(c) The availability of two meetings prior to initiating billing; and

(d) The document review and activity fees, project type and billing ceiling.

(5) If a facility requests to meet with the Department prior to filing a permit application, the Department shall do so. For purposes of this section, the Department will begin charging the facility for pre-permit application meetings and review of documents beginning with the third meeting between the Department and the facility consistent with paragraph (4) above, regardless of whether the facility files a permit application.

(6) The Department will provide written notification to applicants or others that have submitted documents pursuant to paragraph (1) above:

(a) When 30 hours of billable time has been accumulated working on any application, amendment, or other document;

(b) The amount of the document review completed based on the sections reviewed versus those not yet reviewed; and

(c) That the Department shall continue work on the review unless the applicant directs the Department in writing to cease work on the project.

(7) If the applicant directs the Department to cease work, the applicant will still be responsible for reimbursing the Department for the hours of accumulated review time.

(8) In addition to the document review and activity fees specified above, the facility will reimburse the Department for any legal fees incurred by the Department associated with (1) and (2) above, in the amount the Department is then paying for legal representation to the Colorado Attorney General.

(9) The document review and activity fee shall be reviewed annually by the Director and a report shall be provided to the Solid and Hazardous Waste Commission including information supporting that the fee is both equitable to the regulated community and is sufficient to recover reasonable program expenses incurred thereby.

(B) **Schedule**: Solid waste sites and facilities that are subject to the document review and activity fees under paragraph (A) of this section shall pay an hourly charge of $125 for departmental staff and administrative time. The Director shall establish a time-keeping system and shall make available to the owner/operator of the facility a record of those activities for which the owner/operator has been charged.

(1) The document review and activity fee of each type of regulated unit shall not exceed the ceilings noted in the schedule below. For facilities with more than one regulated unit, the maximum document review and activity fee is the sum of the ceiling fees for each unit at the facility.

(2) The department may, on a case-by-case basis and upon demonstration of need consistent with section 25-15-301.5, request a waiver of the ceiling fee from a solid waste site and facility subject to the document review and activity fee.

DOCUMENT REVIEW AND ACTIVITY FEES SCHEDULE	
Task	**Ceiling Fee**
Notification/Registration/Bonds	$1,000
Certificate of Designation Application	$35,000
Design and Operation Plan Modification	$25,000
Construction CQA Report	$5,000
Ones Own Waste Design & Operation Plan	$35,000
Audit Reports	$5,000
Financial Assurance - Annual	$3000
Financial Assurance - 5 yr	$5000
Monitoring Reports (e.g., groundwater landfill gas, remediation's)	$3,000
Corrective Action, Remediation & Pilot Project Plans (e.g., gas, groundwater, geotechnical, storm-water, site visit, meetings etc.)	$10,000/calendar year
Closure Plans and modifications	$5,000
Post-Closure Plans and modifications	$5,000
Transfer Station Operating Plan	$10,000
Asbestos Contaminated Soil Facilities	$15,000/area/calendar year
Compost Facility Design & Operation Plan	$15,000
General Correspondence	$500
Special Requests	$10,000

1.7.3 ANNUAL FEES

(A) **Applicability**:

(1) Solid waste disposal sites and facilities that are not required to pay the Solid Waste User Fee (section 25-16-104.5, C.R.S.) are required to pay an annual fee (30-20-109(2.5)(a), C.R.S.), as follows:

a. Unattended landfills that are active and receiving waste - $1,000,

b. Unattended landfills[1] in post-closure monitoring and/or maintenance - $500, [1]**Note**: Monofill facilities that contain only coal combustion products and landfills owned by municipalities are exempt from this annual fee requirement.

c. Facilities with one or more Type A waste impoundments but with no Type B waste impoundments - $0,

d. Facilities with one or more Type B impoundments - $1,000,

e. Solid waste incinerator facilities - $1,000,

f. Medical waste facilities - $1,000,

g. Compost facilities

i. Class I Composting facilities - $0,

ii. Class II Composting facilities - $100,

iii. Class III Composting facilities - $1,000, and

h. Inactive facilities (facilities that have not accepted waste for more than one year, are not yet closed, and are unattended due to inactivity) that would be subject to the Solid Waste User Fee when active but are not paying the Solid Waste User Fee during this period of inactivity - $500.

(2) With the exception of the facilities listed in Section 1.7.3(A)(1)(h), the facilities listed in Section 1.7.3(A)(1) above are subject to the annual fee from the time such facilities first begin operating until final closure is certified and the cessation of post-closure care and monitoring has been approved by the Department in writing. The facilities listed in Section 1.7.3(A)(1)(h) are no longer subject to the Solid Waste User Fee and become subject to the annual fee once they have not accepted new solid waste for more than one year. Facilities shall provide payment of the annual fee for reimbursement of Department costs incurred in tracking, compliance monitoring, compliance assistance, enforcement, and other recurring activities that are reasonable and necessary to ensure compliance with these regulations.

(3) Facilities that include sub-facilities in more than one of the above subsections (A)(1)(a) -(h) must pay the annual fee associated with each type of facility.

(B) **Payment**: All owners and operators of facilities subject to the fees of this section shall provide timely payment of the annual fees to the Treasurer of the State of Colorado, as provided in this section after being billed for such fees by the Department. All annual fees shall be credited to the Solid Waste Management Fund created in section 30-20-118, C.R.S. If the Department determines that a site or facility is or has been subject to payment of the annual fee requirements subject to subsection (2.5) of this section and has not paid all of the amount of fees due, in addition to any other remedies the Department may have in such circumstances as provided by law, the Department may assess the site or facility an additional fee equivalent to double the amount of the estimated annual fee, without interest, that the site or facility would have paid the Department if the fee had been paid as required by law.

1.7.4 Solid Waste User Fee

A. Beginning April 1, 2011 the operator of each attended solid waste disposal site shall, at the time of disposal, collect a solid waste user fee from waste producers or other persons disposing of solid waste at the following rates:

1) Thirteen cents ($0.13) per cubic yard or forty-three cents ($0.43) per ton on each load transported into the solid waste disposal site for disposal by any vehicle, or an equivalent amount determined using the conversion factors in subsection 1.7.4(A)(4) to support the costs described in § 25-16-104.5(1.7)(a)(I), C.R.S.;

2) Five cents ($0.05) per cubic yard or seventeen cents ($0.17) per ton on each load transported into the solid waste disposal site for disposal by any vehicle, or an equivalent amount determined using the conversion factors in subsection 1.7.4(A)(4) to support the costs described in § 25-16-104.5(1.7)(a)(II), C.R.S.; and

3) Three cents ($0.03) per cubic yard or ten cents ($0.10) per ton on each load transported into the solid waste disposal site for disposal by any vehicle, or an equivalent amount determined using the conversion factors in subsection 1.7.4(A)(4) to support the costs described in § 25-16-104.5(1.7)(a)(III), C.R.S.

Solid Waste User Fee	Cubic Yard Rate	Ton Rate
Solid Waste Program § 25-16-104.5(1.7)(a)(I)	$0.13	$0.43
Hazardous Substance Response Fund § 25-16-104.5(1.7)(a)(II)	$0.05	$0.17
Department of Law § 25-16-104.5(1.7)(a)(III)	$0.03	$0.10
Total SWUF Note: Does not include RREO fee as defined in § 25-16-104.5(3.9)	$0.21	$0.70

4) Conversion factors: Any solid waste disposal facility or jurisdiction may use the following conversion factors when calculating Solid Waste User Fees:

a. 0.333 cubic yards/passenger car

b. 0.666 cubic yards/light duty truck/suv

c. 3.333 cubic yards/ton for municipal solid waste

d. 5.000 cubic yards/1,000 gallons

e. 0.75 cubic yards/ton for soil

A facility may request that the Department approve an alternate conversion rate, based on the material specific density for a given waste stream. This request must include data that validates the density of the material.

B. Equivalent rate structure: A facility may request that the Department approve an equivalent rate structure for the facility that is based upon the population of the defined service area for the facility. The service area population shall be based upon official Colorado demographic figures that are established under the most recent national census. Each facility using an equivalent rate structure must update its demographic data every five years to ensure that its service area population remains subject to the equivalent rate structure.

1. The equivalent rate structure will only be available to facilities that have a service area population of no more than 3500 people. All other facilities must utilize the fee structure set forth in § 25-16-104.5, C.R.S.

2. A facility must request an equivalent rate structure in writing. The facility shall submit the applicable population data, and a map and/or description of the service area to the Department as part of its request.

3. The equivalent rate structure shall be based on the following formula:

4.5 lbs./person/day x 365 days/year divided by 2,000 lbs./ton = X tons/year

(X tons/year x 3.333 cubic yards/ton) x (the cubic yard rate that is established in current statute) = the dollar amount to be paid per annum.

C. Allowable expenditures and reporting: Local jurisdictions operating disposal facilities and collecting user fees are allowed to use these fees to cover their expenses in performing response activities at National Priority List (NPL) sites, pursuant to § 25-16-104.5(2)(a.5), C.R.S. The following provisions set forth the reporting requirements, allowable expenses, and other aspects of fee collection and retention or use under this citation.

1. A jurisdiction must obtain approval from the Department to use or retain for future use, fees as provided in statute. The jurisdiction shall submit a written request including the name of the site, what response activities are to be taken, the requirement for taking such action (e.g., a Record of Decision, Consent Decree or an Order), and estimates of how much money will be expended and over what period of time. The information provided must demonstrate compliance with the provisions of § 25-16-104.5, C.R.S. and these regulations, which shall be the criteria for approval or disapproval by the Department. The Department will use its best efforts to complete its review of such requests within 30 days.

2. A jurisdiction may retain fees pending the Department's decision and any appeal thereof; however, the jurisdiction may not expend such fees until approval is granted by the Department. The Department shall provide a jurisdiction with a written statement of reasons for any disapproval or partial disapproval. A jurisdiction may appeal the Department's determination in accordance with the Colorado Administrative Procedures Act, Section 24-4-105 C.R.S.

3. A jurisdiction that expends fee monies on designated sites listed on the NPL shall be subject to quarterly reporting requirements. The jurisdiction shall report to the Department all fee monies collected, monies remitted to the solid waste management fund, and monies expended pursuant to statute to fund response activities at NPL sites during the previous quarter. The jurisdiction shall further describe the expended funds on a site specific and activity specific basis, including the site name and the nature of the expenditure. If credits are requested against future expenditures as per paragraph 6 of this subsection, the jurisdiction shall specify the amount, site name and proposed activities. The jurisdiction shall also report the amount of interest or dividend gained on any retained fees and how it was retained, used or remitted on a site-specific basis.

4. A jurisdiction shall remit any fees and accrued interest not retained or used for allowable expenses as described herein to the Department on a quarterly basis.

5. If a jurisdiction has received settlement monies for response activities from other responsible parties, the jurisdiction must first use such settlement monies for those response activities before using retained fees. In order to obtain Department approval to retain and spend retained fees on NPL sites where such settlement monies have been received, the jurisdiction must submit information on the settlement to the Department, with an accounting of these monies to show that they have been expended.

6. Only the costs of response activities at sites on the NPL where the local jurisdiction is required to perform such activities as a consequence of being a potentially responsible party (as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Contingency Plan) or as a result of a Record of Decision, Order, Consent Decree, Consent Agreement, or other agreement between the local jurisdiction and the U.S. Environmental Protection Agency, qualify for retention and expenditure of collected fees. Allowable expenses include, but are not limited to: the costs of producing required documents such as Remedial Investigations, Feasibility Studies, Records of Decision, and Remedial Designs; the cost of constructing remedial or removal actions; and legal costs associated with the negotiation of orders with the U.S. Environmental Protection Agency. Allowable expenses do not include, without limitation: certain litigation costs, including cost recovery; costs incurred as a regulatory oversight agency that are not required by the U.S. Environmental Protection Agency; additional actions taken at the discretion of the jurisdiction that are not required by the U.S. Environmental Protection Agency; and costs associated with sites that are not on the NPL.

7. Upon approval from the Department, a jurisdiction may be credited fees for future allowable expenses, if it can be shown that the expenditure and remittance of fees as described above will not cover the estimated allowable expenses. This need must be demonstrated by showing projected allowable expenditures against expected revenues from retained fees. The approval of the Department will be based on compliance with § 25-16-104.5, C.R.S. and these regulations regarding allowable expenses. In addition, the Department may consider other factors such as the time period of retention, in assessing such a request.

D. Audit: The Department may audit a facility in order to ascertain whether or not the facility is in compliance with these regulations and the governing statute.

1. An operator of a solid waste disposal facility shall retain all records regarding the collection and remittance of solid waste user fees for a period of three years.

2. A jurisdiction shall retain all records relating to its retention and/or expenditure of solid waste user fees for a minimum of three years, at which time it may request that the records no longer be retained.

1.7.5 Waste Grease Transporters, Facilities, and Personal Users of Waste Grease Annual Fees

(A) **Authorization**: The Department is authorized per Section 30-20-123(9)(a.5), C.R.S. as amended, to collect an annual registration fee for Waste Grease Transporters, Facilities and Personal Users of Waste Grease.

(B) **Applicability**: Beginning July 1, 2019 all "Waste Grease Transporters", "Waste Grease Facilities" and "Personal Users of Waste Grease Other than For Use as Biofuel", as defined in Section 1.2 of these regulations are subject to the following annual fees as noted below:

1. Waste Grease Transporter:

   a. $280 per vehicle per year; and

   b. $25 per set of five (5) temporary decals.

2. Waste Grease Facility: $700 per year

3. Personal Users of Waste Grease Other than For Use as Biofuel: $96 per year.

(C) The fees must be paid to the Treasurer of the State of Colorado by remitting to:

Hazardous Materials and Waste Management Division
Solid Waste and Materials Management Program
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

1.7.6 Waste Tire Fee

Retailers must collect a fee of $1.25 on the sale of each new motor vehicle tire and new trailer tire. Retailers must submit to the Department all fees collected from the sale of each new motor vehicle tire and new trailer tire. The fees collected each month are due to the Department no later than the 20th day of the following month.

The Waste Tire Fee must be distributed as follows:

a. $.50 must be deposited into the Waste Tire Administration, Enforcement, Market Development, and Cleanup Fund (Section 30-20-1404, C.R.S.).

b. $.75 must be deposited into the End Users Fund (Section 30-20-1405, C.R.S.).

1.7.7 Paint Stewardship Program Fees

(A) **Authorization**: The Department is authorized per Section 25-17-404 (4), C.R.S. and Section 25-17-408, C.R.S. as amended, to collect fees for oversight of the paint stewardship program.

(B) **Applicability**: A paint stewardship organization or one or more paint producers as defined in Section 1.2 of the regulations shall pay to the Department an annual fee of $120,000 on or before July 1, 2015 and annually on or before July 1 of each calendar year thereafter for the paint stewardship program plan fee, revised plan fee and paint stewardship annual report fee.

1. From within the paint stewardship program plan fee, revised plan fee; and paint stewardship annual report fee total, $9,108 or as much as necessary will be appropriated to the Department of Law for the purchase of legal services.

2. The annual fee shall be prorated if there is more than one paint stewardship organizations or paint producers by the number of approved plans.

SECTION 1.8 RESERVED

1.9 INSPECTIONS - ENFORCEMENT - CIVIL PENALTY

1.9.1 Inspections of Solid Waste Disposal Sites and Facilities. Solid waste disposal sites and facilities as well as any property, premises or place where the Department reasonably believes that solid waste may be located, based on information provided to the Department, discovered by the Department during inspection, or otherwise in the possession of the Department, may be inspected by authorized representatives of the Department to evaluate compliance with the Solid Waste Disposal Act, Sections 30-20-100.5 et seq, C.R.S. ("the Act"), any subsequent rule or regulation, or the approved design and operations report issued as part of the certificate of designation or a previously issued compliance order.

(A) Authorized representatives of the Department shall have access to all such sites and facilities during normal business hours.

(B) Inspections shall be made upon consent or pursuant to a search warrant issued by the Colorado District Court in the judicial district where the site or facility is located, when it is demonstrated to the court that entry to such a facility is required to verify compliance with the Act.

(C) No prior notification is required for such inspections.

1.9.2 Enforcement. Whenever the Department determines that any site or facility as well as any property, premises or place where the Department reasonably believes, based on information provided to the Department, discovered by the Department during an inspection, or otherwise in the possession of the Department that solid waste may be located is not or has not been in compliance with the Act, any subsequent rule or regulation, the terms of a certificate of designation issued under Section 30-20-104, C.R.S. or with previously issued Compliance Orders, the Department may issue a Compliance Advisory and/or Compliance Order to such site or facility (the respondent). Further, the Department may request that the Attorney General bring suit for injunctive relief or penalties.

(A) A Compliance Advisory may be issued when the Department deems it appropriate to notify the respondent that a violation has occurred or is occurring. It shall include the factual basis for the violations. It does not constitute an agency action subject to appeal, but does constitute notice to the respondent of the violation(s).

(1) Compliance Advisories may be resolved by:

(a) A Compliance Conference that shall be available to the respondent. The Compliance Conference may be either by telephone, in person or by mail. The respondent shall be given the opportunity to submit additional materials addressing the basis for the Department's belief that a violation has occurred or is occurring.

(b) A No Violations Letter shall be issued by the Department, if, after receipt of the facility's response, the Department determines that some or all of the violations did not occur. It shall inform the respondent in writing and attach a copy of the correspondence to the Compliance Advisory in the respondent's file.

(c) A No Further Action Letter shall be issued by the Department to the respondent, if, after the Compliance Conference or submittal of additional information, the Department finds, based upon the available information, that compliance with some or all of the violations in the Compliance Advisory has been achieved. A copy of the No Further Action Letter shall be attached to the Compliance Advisory in the respondent's file.

(i) A No Further Action letter shall serve to document which violations have been remedied as of the date of issuance of such letter, and shall inform the respondent that no further action regarding those violations is necessary by the respondent to come into compliance with the specified requirements.

(ii) The issuance of such No Further Action letter shall not preclude the Department from issuing an Administrative Enforcement Action in accordance with Section 1.9.3 below or from bringing a civil action or seeking a civil penalty pursuant to section 30-20-113, C.R.S. for the violations cited in the Compliance Advisory.

(d) If, in the case of a Compliance Advisory, no Compliance Conference is held or if after the Compliance Conference the Department determines that some or all the violations cited in the Compliance Advisory are correct, it may issue a Compliance Order.

(B) Administrative Enforcement Actions

(1) A Compliance Order may be issued whenever the Department finds, based upon information provided to the Department, discovered by the Department during an inspection or otherwise in the possession of the Department, that the respondent is or has been in violation of the Act, any subsequent rule or regulation or any certificate of designation, or previously issued Compliance Order.

(2) All Compliance Orders shall be served upon the respondent by registered mail, return receipt requested, or via personal service.

(3) A Compliance Order shall identify the factual and legal elements of each violation. A Compliance Order may be prohibitory or mandatory in effect and may state what steps the respondent must take to prevent or remediate any violations.

(C) Resolution of Compliance Orders

(1) A Compliance Conference shall be available to the respondent to whom a Compliance Order has been issued. The Compliance Conference may be either by telephone, in person or by mail.

(2) The respondent may offer any evidence or argument concerning the existence or gravity of the violations alleged in the Compliance Order at a Compliance Conference.

(3) The respondent may also discuss the terms of the order and may request further explanation of the violations.

(4) The respondent need not be represented by legal counsel at the Compliance Conference, although the respondent may choose to do so.

(5) A respondent's acceptance of an offer for a Compliance Conference does not stay the effectiveness of any provision of a Compliance Order pursuant to 24-4-105, C.R.S. that is specified to be effective immediately unless otherwise agreed to in writing by the Department. Failure to accept an offer to attend a Compliance Conference shall not preclude a respondent from filing an appeal of the Compliance Order.

(6) Following the Compliance Conference, the Department may reissue the Compliance Order as originally issued, modify the order, or withdraw the order. A modified or reissued Compliance Order shall become effective upon receipt by the respondent unless provided otherwise in such Compliance Order and is subject to appeal in accordance with Section 1.9.3 below.

(7) Unless otherwise provided for in a Compliance Order, if no Compliance Conference is held or if a Compliance Order is originally issued as fully effective, the Compliance Order shall be subject to appeal in accordance with section 1.9.3 below.

(D) A No Violations Letter shall be issued by the Department if, after a response from the facility, the Department determines that some or all of the violations did not occur.

(1) A copy of the No Violations Letter shall be attached to the Compliance Order in the respondent's file.

(E) A No Further Action Letter shall be sent to the respondent and attached to the Compliance Order in the respondent's file, if, after a Compliance Conference, the Department determines that the facility has come into compliance with respect to some or all of the violations.

(1) A No Further Action Letter shall serve to document which violations have been remedied as of the date of the letter.

(2) The issuance of such No Further Action letter shall not preclude the Department from issuing a Compliance Order in accordance with section 1.9.2 above or from bringing a civil action or seeking a civil penalty pursuant to section 30-20-113, C.R.S. for the violations cited in the Compliance Order.

(F) In accordance with Section 30-20-113(5)(b), C.R.S. of the Act, the Department may settle claims for administrative or civil penalties of up to $10,000 per violation per day through settlement agreements or compliance orders on consent. Such a settlement may include, but is not limited to, payment or contribution of the penalty amount to state or local agencies or for other environmentally beneficial purposes. Penalties collected by the Department shall be paid to the state treasurer.

1.9.3 Appeals of Compliance Orders

(A) After the Compliance Order is effective, but within thirty (30) calendar days of the effective date, the respondent may file a notice of appeal requesting an adjudicatory hearing pursuant to provisions of section 24-4-105, C.R.S., with the Division of Administrative Hearings and the Department. Failure to file such notice of appeal within thirty (30) calendar days shall terminate the respondent's right to challenge the Compliance Order.

(1) The filing of a notice of appeal shall not stay the respondent's obligation to comply with an effective Compliance Order.

(2) All Compliance Orders are effective upon receipt unless provided otherwise in the Compliance Order.

(B) Within thirty (30) calendar days of the date that the administrative law judge issues his/her decision, the Executive Director of the Department shall review the decision and make a determination regarding the final agency action. The respondent's obligations under the Compliance Order shall not be stayed pending determination of the final agency action by the Executive Director.

(C) All appeals of determinations of final agency action by the Executive Director shall be filed with the Denver District Court no later than thirty (30) calendar days after the respondent's receipt of the determination.

1.9.4 Judicial Enforcement Actions

(A) The Department may, at any time that the Department finds that the respondent is or has been in violation of the Act, commence a civil action for injunctive relief, in accordance with section 30-20-113(2) C.R.S. in the district court of the judicial district in which the violation occurs.

(1) The Department may file a civil action for injunctive relief in addition to, or as an alternative to, the issuance of a Compliance Order.

(B) In accordance with the Act, the Department may seek a civil penalty for each violation of the Act in the district court of the judicial district in which the violation occurs. The district court may impose a civil penalty of no more than $10,000 per violation per day.

SECTION 2 MINIMUM STANDARDS

2.1 SITE AND FACILITY STANDARDS

All solid waste disposal sites and facilities shall comply with the following standards:

2.1.1 Sites and facilities shall comply with the health laws, standards, rules, and regulations of the Department, the Water Quality Control Commission, the Air Quality Control Commission, and all applicable local laws and ordinances.

2.1.2 (A) Sites and facilities shall not knowingly receive any hazardous waste.

(B) Owners and operators of all solid waste disposal sites and facilities shall implement a program at the facility for detection and the prevention of the disposal of polychlorinated biphenyl (PCB) wastes and hazardous wastes. This program must include:

(1) Random inspections of incoming loads unless the owner or operator takes other steps to ensure that incoming loads do not contain such wastes;

(2) Records of any inspections;

(3) Training of facility personnel to recognize these wastes; and

(4) Notification of the Department if these wastes are discovered at the site and facility. Upon receipt of such notification, the Department, after consultation with the local governing body having jurisdiction, may require that the ground water monitoring program of the site and facility be altered to include adequate monitoring for parameters that would detect the release of the hazardous waste or wastes disposed of on site.

(C) All sites and facilities, requiring a certificate of designation, shall have a waste characterization and disposal plan approved by the Department and in use for such site and facility. The plan shall outline waste screening methodologies, appropriate waste handling procedures, and waste exclusion procedures which shall be implemented at each facility. The plan shall:

(1) Describe the responsibility of the waste generator in determining if the generator's waste is a hazardous waste pursuant to the Colorado Hazardous Waste Regulations, 6 CCR 1007-3, Part 261. Such determination may be made by:

(i) Testing the waste according to the methods set forth in Subpart C of Part 261 or according to an equivalent method approved by the Department under Section 260.21; or

(ii) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(2) Include the site and facility's owner or operator's evaluations, screening methods, and documentation procedures regarding the generator's waste characterization determination.

(3) Include an identification of the waste streams requiring specific waste handling and/or disposal methods; and

(4) Include a contingency plan developed for handling any hazardous waste that is inadvertently discovered.

(D) (1) Existing sites and facilities for which a certificate of designation has been obtained by [the effective date of these regulation amendments] must submit a waste characterization plan pursuant to the Section 2.1.2(c) within [three months after the effective date of this amendment] for approval by the Department. Such plan shall also be provided to the local governing body having jurisdiction within [three months of the effective date of this regulation]. Nothing in this Subsection (D), including the Department's approval of any such waste characterization plan, shall affect the terms or conditions of any existing certificate of designation, and such existing terms and conditions shall remain enforceable by the local governing body having jurisdiction.

(2) However, all approved sites and facilities with a certificate of designation before (the effective date of this regulation) that have submitted a plan or other document containing information required by subsection 2.1.2(C) to the Department prior to the [effective date of this regulatory proposal and subsequent to October 9, 1993] and received approval from the Department for such plan or document prior to [the effective date of this regulatory proposal] shall not be required to submit a new waste characterization plan pursuant to this Subsection (D). The Department may require such a site and facility to amend any such previously approved plan or submit a new waste characterization plan if the definition of solid waste in Section 1.2 of these regulations or the definition of hazardous waste pursuant to 6 CCR 1007-3, Part 261 is revised.

(E) All waste characterization plans for new facilities shall incorporate the waste characterization plan into the engineering design and operation report included in the site and facility's application for a certificate of designation pursuant to the procedures described in Section 1.6 of these regulations.

2.1.3 Nuisance conditions shall not exist at or beyond the site boundary. All reasonable measures shall be employed to collect, properly contain, and dispose of scattered litter including frequent policing of the area, and the use of wind screens where necessary. The facility shall be managed in such a manner that noise, dust and odors do not constitute a hazard to human health. The facility shall be managed in such a manner that the attraction, breeding and emergence of birds, insects, rodents and other vectors do not constitute a health hazard.

2.1.4 Water pollution shall not occur at or beyond the point of compliance.

2.1.5 No significant aquifer recharge areas, as may be designated by the Colorado State Engineer's office or the Department's Water Quality Control Commission, shall be adversely impacted by solid waste disposal.

2.1.6 Sites and facilities shall, design, construct, and maintain: (a) A run-on control system to prevent flow onto the active facility during the peak discharge from a 25-year, 24-hour storm, and (b) A run-off control system to: (1) collect the water volume resulting from a 25-year, 24-hour storm event and (2) control the water volume resulting from a 100-year, 24-hour storm event. (See also Section 2.5.7).

2.1.7 Sites and facilities shall be adequately fenced or secured to prevent waste material and debris from leaving the site. Waste material and debris shall not accumulate along the fence line and shall be collected regularly and placed into the fill.

2.1.8 Sites and facilities shall control public access, prevent unauthorized vehicular traffic, provide for site security both during and after hours, and prevent illegal dumping of wastes. Effective artificial barriers, or natural barriers, or both may be used in lieu of fencing.

2.1.9 Solid wastes deposited at any site and facility shall not be burned, other than by incineration in accordance with a certificate of designation issued pursuant to C.R.S. 30-20-110(f) of the Act. The Department may authorize, in extreme emergencies, the supervised burning of large quantities of combustible materials, such as agricultural wastes, silvicultural wastes, land clearing debris, diseased trees, or debris from emergency cleanup operations.

2.1.10 Sites and facilities for final disposal shall provide adequate cover as described in Section 3.3.5, prevent ponding of water, wind erosion and water pollution. In the operation of a site and facility, the solid wastes shall be distributed in the smallest area consistent with handling traffic to be unloaded. The solid wastes shall be placed in the most dense volume practicable using compaction or another method approved by the Department.

2.1.11 Sites and facilities shall have a minimum of windblown debris. The facility shall cease operations during periods when high wind warnings as defined in Section 1.2 are verified on-site. If the facility has no wind velocity measuring device, closure decisions shall be based on readings obtained hourly by the facility operator from the nearest national weather service office or other location approved by the Department with concurrence from the local governing body having jurisdiction.

2.1.12 Landfills shall not accept raw sludges from wastewater treatment plants, septic tank pumpings, or chemical toilet wastes, without approval from the governing body having jurisdiction and the Department.

2.1.13 Sludges shall not be co-disposed with other solid wastes at the working face of sanitary landfills without approval from the governing body having jurisdiction and the Department.

2.1.14 No facility may accept for disposal, liquid wastes or wastes containing free liquids without approval from the governing body having jurisdiction and the Department.

2.1.15 Solid waste disposal sites and facilities shall comply with the ground water protection standards at the relevant point of compliance as defined in Section 1.2 and the owner/operator shall make a demonstration of compliance.

2.1.16 Sites and facilities where final disposal is performed shall, upon being filled, be left in a condition of orderliness and good aesthetic appearance and capable of blending with the surrounding area.

2.1.17 Solid waste disposal sites and facilities shall not place wastes below or into surface or ground water. This practice is prohibited on and after the effective date of these regulations.

2.1.18 (A) If the owner or operator of a solid waste disposal site and facility observes, or is made aware of a condition or event which is likely to cause a release or has caused a release of a substance containing a parameter identified in the facility detection monitoring program pursuant to Appendix B4 and that such condition or event is likely to cause a statistically significant increase over background, the owner or operator shall notify the department and the local governing body having jurisdiction in writing within ten (10) days.

(B) Notifications made under this subsection shall be made part of the operating record of each solid waste disposal site and facility.

(C) The procedure and timing for activities after the initial notification per 2.1.18(A) shall follow Appendix B4(C) and Appendix B5."

2.2 GROUND WATER MONITORING

2.2.1 A solid waste disposal site and facility which has not received a specific waiver from ground water monitoring requirements of these regulations as provided in Appendix B or Section 1.5, shall implement a ground water monitoring program in conformance with Appendix B, Sections B1 through B8 of these regulations. The monitoring requirements shall be developed and implemented at the solid waste disposal site and facility. After consultation with the local governing body having jurisdiction, the Department shall review and may approve or deny the monitoring program developed as a result of the requirements set forth in Appendix B. Once approved, the owner or operator shall implement the monitoring plan at the site.

(A) A ground water monitoring system shall be installed in conformance with Appendix B, Section B2.

(B) The ground water shall be sampled and analyzed in conformance with Appendix B, Section B3.

(C) A detection monitoring system shall be implemented in conformance with Appendix B, Section B4.

(D) If statistically significant increases over background have been determined, in conformance with Appendix B, Section B3, assessment monitoring shall be implemented in conformance with Appendix B, Section B5.

(E) Statistically significant increases of Appendix I and Appendix II constituents shall trigger an assessment of interim measures and corrective measures in conformance with Appendix B, Section B6.

(F) Selection of remedy and implementation of the corrective action program shall be implemented in conformance with Appendix B, Sections B7 and B8.

(G) The list of chemical constituents which shall form the basis of monitoring and analyses during detection, assessment and corrective action at solid waste disposal sites and facilities other than MSWLFs will be determined on a case-by-case basis depending on the wastes received by the facility. To have an alternate list of chemical constituents approved for a site and facility, the owner or operator must demonstrate to the Department that the utilization of the alternate list during detection, assessment or corrective action will be as protective for that specific site and the waste streams received as the requirements specified for MSWLFs in these regulations.

2.3 EXPLOSIVE GASES

The owners or operators of all solid waste disposal sites and facilities which may generate explosive gases shall monitor for explosive gases.

2.3.1 The concentration of explosive gases generated by the facility for solid waste disposal shall not exceed:

(A) Twenty-five percent [25%] of the lower explosive limit (LEL) (one percent [1%] by volume in air for methane) within facility structures (excluding gas control or recovery systems); and

(B) At the boundary, the lower explosive limit which is five percent (5%) by volume in air for methane.

2.3.2 Owners or operators shall implement a routine monitoring program for explosive gases. The type and frequency of monitoring must be determined based on the following factors:

(A) Soil conditions;

(B) The hydrogeologic conditions surrounding the facility;

(C) The hydraulic conditions surrounding the facility; and

(D) The location of facility structures and property boundaries.

(E) The minimum frequency of monitoring shall be quarterly.

2.3.3 If explosive gas levels are detected exceeding the limits specified in Section 2.3.1, the owner or operator shall notify the Department and the local governing body having jurisdiction and:

(A) Immediately take all necessary steps to ensure protection of human health;

(B) Within seven (7) days of detection, place in the operating record documentation of the explosive gas levels detected and a description of the actions taken; and

(C) Within sixty (60) days of detection, implement an approved remediation plan, place an approved copy of the plan in the operating record, and notify the Department and the local governing body having jurisdiction that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy.

(D) The Department after consultation with the local governing body having jurisdiction may establish alternative schedules for demonstrating compliance with Subsection 2.3.1 (A) and (B) of this section.

2.3.4 All explosive gas monitoring points shall be installed in accordance with applicable rules and regulations of the “Water Well and Pump Installation Contractor's Act”, Title 37, Article 91, Part 1, CRS as amended.

2.4 RECORDKEEPING

2.4.1 All operating records shall be part of the engineering design and operation report and shall be maintained at the facility, unless otherwise approved by the Department.

2.4.2 The owner or operator of a solid waste disposal site and facility shall record and retain in an operating record the following information as it becomes available:

(A) Location restriction demonstration required under Section 3.1;

(B) Inspection records, and training procedures;

(C) Gas monitoring results from monitoring and any remediation plans required by Section 2.3;

(D) Design documentation for controlling leachate or gas condensate;

(E) Demonstrations, certifications, findings, data or documents required by Section 2.2;

(F) Closure and post closure care plans and any monitoring, testing, or analytical data as required by Section 2.5 and 2.6;

(G) Cost estimates and financial assurance documentation required by Section 4; and

(H) Information demonstrating compliance with waivers as required by Section 1.5.

2.4.3 The owner or operator must notify the Department and the local governing body having jurisdiction when the documents required by this section have been placed or added to the operating record. All information contained in the operating record must be furnished upon request or be made available at all reasonable times for inspection by the governing body having jurisdiction or the Department.

2.5 CLOSURE OF SOLID WASTE DISPOSAL SITES AND FACILITIES

2.5.1 Sites and facilities shall be closed in accordance with the Act, and these regulations.

2.5.2 No person shall close a solid waste disposal site and facility without notifying the Department and the governing body having jurisdiction in writing at least sixty (60) days in advance of the closure date.

2.5.3 The operator of a solid waste disposal site and facility shall notify the general public at least sixty (60) days in advance of the proposed closure date by placing signs of suitable size at the entrance to the site and facility.

2.5.4 Precautions shall be taken to prevent further use of the site and facility for unauthorized disposal.

2.5.5 Water pollution shall not occur at or beyond the point of compliance after closure.

2.5.6 Nuisance conditions shall not exist at or beyond the site boundary after closure (see also 2.1.3).

2.5.7 Permanent surface water diversion structures remaining after closure shall control run-on and run-off from the 100 year, 24-hour storm event.

2.5.8 The owner or operator shall prepare a closure plan for approval by the Department after consultation with the local governing body having jurisdiction. The approved plan shall be placed in the operating record.

2.5.9 The owner or operator must begin closure activities of each disposal phase no later than thirty (30) days after final waste grades are reached. Extensions beyond the thirty (30) day deadline for beginning closure may be granted by the Department and the local governing authority if the owner or operator demonstrates that all steps necessary to prevent threats to human health and the environment from the active disposal phase will be taken.

2.6 POST-CLOSURE CARE AND MAINTENANCE STANDARDS

2.6.1 The owner or operator of all solid waste disposal sites and facilities shall prepare a written post-closure plan to be approved by the Department after consultation with the local governing body having jurisdiction and shall place it in the operating record.

2.6.2 For MSWLFs, the post-closure care period shall be established by the Department and the governing body having jurisdiction per Section 3.6, shall be based on the operating history of the site, and shall be at least thirty (30) years. The post-closure care period for solid waste disposal sites and facilities other than MSWLFs will be established by the Department and the governing body having jurisdiction.

PART B REQUIREMENTS AND INFORMATION CONCERNING ALL SOLID WASTE DISPOSAL SITES AND FACILITIES IN THE STATE OF COLORADO

SECTION 3 STANDARDS FOR SOLID WASTE DISPOSAL LANDFILL SITES AND FACILITIES

3.0 PURPOSE, SCOPE AND APPLICABILITY

3.0.1 It is the purpose and intent of these regulations as they apply to solid waste landfills (MSWLFs) to be equivalent to but not more stringent than the 40 CFR Part 258 while allowing the maximum flexibility of interpretation and application based upon the characteristics of the chosen site.

3.0.2 This Section 3 also applies to non-MSWLF sites and facilities. On a case-by-case demonstration basis, the application of these requirements to non-MSWLFs may be altered provided that the alternative standard is as protective of the environment and public health as the requirement specified in these regulations.

3.1 LOCATION RESTRICTIONS AND SITE STANDARDS

3.1.1 Landfills that accept putrescible wastes which occur within 10,000 feet (3048 meters) of any airport runway used by turbojet, or within 5,000 feet (1,523 meters) of any airport runway used only by piston-type aircraft shall not pose a bird hazard to aircraft. The applicant shall submit reasonable evidence regarding the ability to mitigate a bird hazard, to the Department and the local governing authority having jurisdiction for their review. Owners or operators proposing to site new facilities or expand existing facilities within a five (5) Mile radius of an airport runway that is used by turbojet or piston-type aircraft shall notify the Department and the local governing body having jurisdiction and the Federal Aviation Administration (FAA).

3.1.2 New landfills and expansions of existing landfills shall not be located in wetlands, unless the owner or operator can demonstrate that the proposed operation can meet the restrictions set forth in 40 CFR 258.12.

3.1.3 New landfills and expansions of existing landfills shall not be located within 200 feet (60 meters) of a fault that has had a displacement in holocene time unless the owner or operator demonstrates to the Department that an alternate setback distance of less than 200 feet (60 meters) will be effective or equally effective in the prevention of damage to the structural integrity of the facility and will be protective of human health and the environment.

3.1.4 New landfills and expansion of existing landfills shall not be located in seismic impact zones, unless the owner or operator demonstrates to the Department that all components, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site. The owner or operator shall place the demonstration in the operating record of the facility and submit it to the Department and local governing body having jurisdiction.

3.1.5 Owners or operators of new landfills, existing landfills and expansions of existing landfills located in an unstable area must demonstrate that engineering measures have been incorporated into the facility's design to ensure that the integrity of the structural components of the facility will not be disrupted. The owner or operator shall place the demonstration in the operating record of the facility and submitted to the Department and the local governing body having jurisdiction. The owner or operator shall consider the following factors, at a minimum, when determining whether an area is unstable:

(A) On-site or local soil conditions that may result in significant differential settling;

(B) On-site or local geologic or geomorphologic features; and

(C) On-site or local human-made features or events (both surface and subsurface).

3.1.6 The topography of the site shall maximize protection against prevailing winds on-site and minimize the amount of precipitation catchment area upgradient of the site.

3.1.7 Landfills shall not be located in a floodplain as defined herein.

3.1.8 Landfills shall isolate wastes from the public and the environment. Sites and facilities shall demonstrate suitable isolation to the Department and governing body having jurisdiction by, at a minimum, addressing all Sections in 3.2 and CFR 258.40 in sufficient detail and clarity to justify to the Department and governing body having jurisdiction that wastes and any potential leachate will be controlled within the fill area. Emphasis will be placed on favorable geologic conditions over engineered improvements of marginal geological conditions.

3.1.9 Landfills shall not place wastes below or into surface water or ground water. The operation of sites and facilities that place waste into ground water after the effective date of these regulations is prohibited.

3.2 DESIGN REQUIREMENTS

All portions of the facility design and investigations must be reviewed and sealed by a Colorado professional engineer or reviewed by a professional geologist, as appropriate.

3.2.1 Geologic data The engineering design and operations report shall include, as a minimum, the following geologic data:

(A) Types and regional thickness of unconsolidated soils materials;

(B) Types and regional thickness of consolidated bedrock materials;

(C) Regional and local geologic structure, including bedrock strike and dip, and fracture patterns; and

(D) Geologic hazards, including but not limited to slope stability, faulting, folding, rockfall, landslides, subsidence or erosion potential, that may affect the design and operation of the facility for solid wastes disposal.

3.2.2 Hydrologic data The engineering design and operations report shall include, as a minimum, the following hydrological data:

(A) Lakes, rivers, streams, springs, or bogs, on-site or within two miles of the site boundary;

(B) Depth to and thickness of perched zones and uppermost aquifers;

(C) Ground water wells within one mile of the site boundary, including well depth, depth to water, screened intervals, yields and the aquifers tapped;

(D) Hydrologic properties of the perched zones and uppermost aquifer, including flow directions, flow rates, porosity, coefficient of storage, permeability, and potentiometric surface;

(E) Site location in relation to the base floodplain of nearby drainages;

(F) An evaluation of the potential for impacts to existing surface water and ground water quality from the proposed facility for solid waste disposal; and

(G) The existing quality of ground water beneath the proposed facility.

3.2.3 Engineering data The engineering design and operations report shall contain, as a minimum, the following engineering data:

(1) The type, quantity and location of material that will be required for use as a daily and intermediate cover over the life of the site and facility;

(2) The type and quantity of material that will be required for use as liner material or final cover, including its compaction density and moisture content specifications, and the design permeability;

(3) Maps and plans, drawn to a convenient common scale, that show the following:

(a) The location and depth of cut for liners;

(b) The daily or intermediate cover, and final cover;

(c) The location and depths of proposed fill or processing areas;

(d) The location, dimensions, and grades of all surface water diversion structures;

(e) The location and dimensions of all surface water containment structures, including those designed to impound contaminated runoff leachate, sludge, or liquids for evaporative treatment;

(f) The spatial distribution of engineering, geologic and hydrologic data, and relationship to the proposed facility;

(g) The location of all proposed facility structures and access roads;

(h) The location of all proposed monitoring points for surface water and ground water quality and explosive gases;

(i) The final contours and grades of the fill surface after closure;

(j) The location of fencing to be placed on-site;

(k) The location of each discrete phase of development; and

(l) The design details of the final cap, liner and leachate collection system.

3.2.4 Construction details for all proposed monitoring points for surface water and ground water quality and explosive gases.

3.2.5 Liner/design components

(A) Demonstration shall be made, to the Department and the local governing body having jurisdiction, that the design developed for the facility will comply with Section 2.1.15 at the relevant point of compliance. The owner/operator shall consider at least the following factors:

(1) Barrier layer permeability;

(2) Barrier layer thickness;

(3) Barrier layer porosity;

(4) Slope of the barrier layer;

(5) Hydraulic head on the barrier layer;

(6) Distance to relevant point of compliance;

(7) Distance and characteristics, including quality, of the uppermost aquifer or monitored unit;

(8) Climatic factors;

(9) The estimated volume, physical characteristics and chemical characteristics of the leachate, and

(10) The chemical compatibility of the barrier layer to estimated leachate chemical characteristics;

(11) The distance ground water beneath the site would flow during the facility's operating life and post-closure care period. Distance to domestic wells or springs shown to tap the uppermost aquifer downgradient of the site shall be presented.

(B) The design shall consist of two components: the barrier layer and the leachate collection/removal system. When approving a design that complies with this section, the Department shall consider the ability of the design to comply with Subsection 2.1.15 at the relevant point of compliance taking into consideration site characteristics and site operations.

(C) Barrier layer: the barrier layer shall be an engineered improvement that meets the performance standard of 40 CFR Part 258.40(a)(1) and shall be one of the following:

(1) Natural lithology with recompaction natural lithology with recompaction can be used as a barrier layer when:

(a) A minimum thickness of 20 feet of soils and/or bedrock with in-situ hydraulic conductivity demonstrated through field testing to be less than or equal to $1.0 * 10^{-6}$ cm/sec, are present at the base of an excavation of a sanitary landfill; and

(b) The upper 12-inches is recompacted to achieve a hydraulic conductivity of less than or equal to $1 * 10^{-7}$ cm/sec.

(2) Soil liner: a soil liner shall consist of at least 3-foot of compacted soil with an adequate moisture content and with a hydraulic conductivity less than or equal to $1 * 10^{-7}$ cm/sec.

(3) Composite liner: a composite liner shall consist of two components: The upper component shall consist of a minimum 30-mil flexible membrane line (FML), and the lower component shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity less than or equal to $1 * 10^{-7}$ cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60-mil thick. The FML component shall be installed in direct and uniform contact with the compacted soil component.

(4) Alternative designs: alternatives to the above designs may be approved by the Department based on waste type and site specific technical information. Proposals for alternative designs shall demonstrate that the facility can comply with Subsection 2.1.15 at the relevant point of compliance and for MSWLF with 40 CFR Part 258.40(a)(1). A alternative designs include, but are not limited to the following:

(1) Geosynthetic clay liners;

(2) Natural lithology without recompaction;

(3) Soil admixtures;

(4) Geomembranes;

(5) Polymers, and

(6) Variations of design components described in this Section 3.2.5.

(D) Leachate collection and leachate removal system

(1) A leachate collection system shall be designed and constructed to maintain less than a twelve (12) inch depth of leachate over the barrier layer, and to promote transport of leachate from the most distant point of the leachate collection system to the leachate removal system in less than twelve (12) months (assuming a saturated drainage media). Factors to be considered in the design of a leachate collection system include, but are not limited to, the following:

(a) Waste type;

(b) Anticipated leachate generation rate;

(c) Slope length;

(d) Percent slope;

(e) Barrier layer;

(f) Hydraulic conductivity of the drainage layer, and

(g) Long term performance during the active life and post-closure care period.

(2) A leachate removal system shall be designed, constructed and operated to:

(I) Allow the leachate collection system to perform as designed; and

(II) Account for potential increased hydraulic head in the removal system.

3.2.6 Surface water control systems shall be designed, constructed and maintained to:

(a) Restrict flow onto the active portion of the landfill during peak discharge from a 25-year, 24-hour storm; and

(b) Control the water volume resulting from a 25-year, 24-hour storm from the active portion of the landfill. (See also Section 2.5.7).

3.2.7 Prior to the acceptance of waste, the owner or operator must submit a report to the Department and the local governing body having jurisdiction documenting that the designed construction has been completed in accordance with the approved plan. The report shall be signed by a Colorado registered professional engineer, approved by the Department and placed in the operating record.

3.3 OPERATING CRITERIA

3.3.1 General data The engineering design and operations report shall include, as a minimum, the following general data:

(A) Mailing address, county and legal description of the landfill for solid wastes disposal, township, section, quarter section and range;

(B) Area site, in acres;

(C) Type of landfill for solid waste disposal proposed for the site; and

(D) Discussion of landfills service area, including transportation corridors and surrounding access.

3.3.2 Operational data The engineering design and operations report shall include, as a minimum, the following operational data:

(A) The qualifications, names, and addresses of the persons operating the landfill and having the authority to take corrective action in the event of noncompliance;

(B) The hours of the day and days of the week that the landfill will be operating;

(C) The types and daily volumes in yards per day and/or gallons per month of wastes to be received; expected life of site. If sludge is to be received, its quality should be determined in accordance with Department technical guidelines. A listing of the waste stream types to be approved for routine receipt;

(D) The number, classification, and job descriptions of personnel projected to be employed at the landfill when operating at full capacity;

(E) Number, description, and uses of all equipment projected to be employed at the landfill when operating at full capacity;

(F) The size and types of disposal cells or processing areas to be constructed;

(G) The frequency of the application of adequate cover;

(H) The types and heights of fencing to be placed on-site;

(I) Provisions to minimize nuisance conditions on-site;

(J) Provisions for fire protection to eliminate open burning on-site, and to prevent the spread of open burning to adjoining property;

(K) Provisions for the retrieval of windblown solid wastes, on or off-site;

(L) Conceptual plans to be implemented if the contamination of surface waters or ground waters occur, or if nuisance conditions are confirmed beyond the site boundary; and

(M) The amounts and sources of water to be used on site for the control of nuisance conditions, fire protection, construction purposes and personnel use.

3.3.3 Quality assurance and quality control reports shall be developed and implemented for all engineered structures at the landfill.

3.3.4 Cover material reguirements

(A) The owners or operators of all landfills must cover disposed solid waste with six (6) inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging.

(B) Alternative materials of an alternative thickness (other than at least six (6) inches of earthen material) may be approved by the Department and the governing body having jurisdiction, if the owner or operator demonstrates that the alternative material and thickness control nuisance conditions and scavenging without presenting a threat to human health and the environment.

(C) The Department and the governing body having jurisdiction may grant a temporary waiver from the requirement of daily and intermediate cover requirements, if the owner or operator demonstrates that there are extreme seasonal climatic conditions that make meeting such requirements impractical. Alternate approaches to daily cover as described above will be considered on a case-by-case basis for non-MSWLF's.

3.3.5 Sufficient amounts of adequate cover shall be readily available for use throughout the site's life and for closure to minimize nuisance conditions as necessary.

3.3.6 Adequate amounts of water shall be available for construction purposes and to minimize nuisance conditions, as necessary.

3.3.7 Leachate and landfill gas condensate may be recirculated over the landfill with specific approval by the Department and the local governing authority.

3.3.8 Training

(A) Owners and operators of all solid waste landfills shall develop and implement a training program at the facility that ensures facility personnel are thoroughly trained in facility operations relevant to each person's job duties at the facility.

(1) For purposes of this Section 3.3.8, "facility personnel" means all personnel who work at a solid waste landfill and whose duties include implementing Section 3 of the Regulations and the requirements of the Engineering Design and Operations Plan for the landfill, and whose actions or failure to act may result in non-compliance with these requirements. Facility personnel includes: landfill managers, supervisors, operators and facility personnel that collect groundwater samples or methane gas samples, conduct facility inspections, check leachate levels, and/or review waste profiles or waste acceptance documentation.

(B) The training program must include a written training plan that identifies the introductory and continuing annual training each employee at the landfill will receive related to the management of solid waste that ensures compliance with the solid waste regulations and the facility's Engineering Design and Operations Plan (EDOP). At a minimum, the training plan must include:

(1) A description of personnel training that ensures that hazardous waste, polychlorinated biphenyls, and other prohibited wastes, as specified in the facility's EDOP, are identified and restricted from disposal at the facility; and

(2) A description of personnel training that ensures that facility personnel are thoroughly familiar with applicable portions of the facility's EDOP such that compliance with all aspects of the EDOP is ensured.

(C) The following training records must be maintained at the facility:

(1) The name, job title and job duties for each employee at the landfill related to the management of solid waste;

(2) Written documentation that records the type, date, and amount of initial and annual training provided to each facility employee consistent with the training plan, and

(3) Documentation that facility personnel have received training within six (6) months of being initially employed at the facility or being transferred to a position involving the management of solid waste.

(4) Training records must be made available for review during an inspection for all current facility personnel and maintained on-site for three years.

3.4 RECORDKEEPING

An operating record shall be maintained and include, as a minimum, the following:

(A) Incoming waste volumes,

(B) Water quality monitoring results,

(C) Explosive gas monitoring results,

(D) Construction as-built details, and

(E) Variations from approved operations procedures.

(F) Any demonstration and waiver documentation required in these regulations.

3.4.1 Following closure of landfills, the owner or operator shall:

(A) Record a notation on the deed to the facility property, or some other instrument that is normally examined during title search; and

(B) Notify the Department and the local governing body having jurisdiction that notation has been recorded and a copy has been placed in the operating record.

The notation on the deed must in perpetuity notify any potential purchaser of the property that:

(1) The land has been used as a landfill facility; and

(2) Its use is restricted under Section 3.6.1(7)

The Department after consultation with the local governing body having jurisdiction may grant permission to remove the notation from the deed if all wastes are removed from the facility.

3.5 CLOSURE

The owner or operator of a solid waste site and facility shall develop a closure plan which meets the following minimum criteria.

3.5.1 (A) The closure plan shall be prepared and submitted to the Department for approval. The closure plan shall describe the steps necessary to close the landfill at any point during its active life. The closure plan, at a minimum, shall include the following information:

(1) A description of the final cover system, designed in accordance with Section 3.5.2 and 3.5.3, And the methods and procedures to be used to install the cover;

(2) An estimate of the largest area of the landfill ever requiring a final cover during the active life; and

(3) A schedule for completing all activities necessary to satisfy the closure criteria of this section.

(B) Discrete units of a landfill may be closed independently of closure of the entire facility.

3.5.2 The final grades shall promote surface water run-off and minimize erosion, and shall have slopes no less than 5% (20:1) and no greater than 25% (4:1). Variations from these standards may be acceptable if demonstrations of the adequacy of proposed variance are made to the Department by the owner or operator.

3.5.3 The final cover permeability shall not exceed that of the liner; and the final cover design shall be comprised of one (1) of the following types:

(A) A soil final cover design shall consist of the following:

(1) An infiltration layer consisting of a minimum of 18 inches of earthen material that has a permeability of less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than 1 x 10^{-5} cm/sec, whichever is less, and

(2) An erosion layer of earthen material a minimum of 6 inches in thickness that is capable of sustaining native plant growth.

(B) A composite final cover design shall consist of the following components:

(1) foundation layer to be comprised of a minimum six (6) inch soil layer, located immediately above the refuse, to provide a suitable foundation for placement of the geomembrane.

(2) The barrier layer shall consist of a geomembrane which has a minimum 30-mil thickness and displays properties adequate for its intended purpose.

Factors to be considered in determining barrier adequacy shall include, but are not limited to the following:

(1) The effects of landfill settlement,

(2) Permeability,

(3) Seam strength,

(4) Friction properties, and

(5) Puncture resistance.

(6) Rooting layer comprised of a soil capable of supporting a root system and of sufficient thickness to protect the barrier layer and a seed bed layer of soil capable of supporting plant germination. The minimum thickness of the former layer shall be eighteen inches and the latter layer shall be six inches.

(C) Alternatives to the above designs may be approved by the Department based on waste type and site specific technical information. Proposals for alternative designs shall demonstrate that the final cover system will minimize infiltration and erosion, and comply with Subsection 2.1.15 at the relevant point of compliance. Alternative designs include, but are not limited to the following:

(1) Geocomposite materials,

(2) Soil admixtures,

(3) Polymers and

(4) Variations of design components described in this Section 3.5.3.

3.5.4 The final cover shall be designed so that landfill gases will not adversely affect cover performance as described in this Section 3.5.

3.5.5 Upon approval, and prior to beginning closure of each landfill phase, an owner or operator must notify the Department and place notice of the intent to close the phase in the operating record.

3.5.6 The owner or operator must commence closure activities of each landfill phase no later than 30 days after final refuse grades are reached. Extensions beyond the 30-day deadline for beginning closure may be granted by the Department if the owner or operator demonstrates that all steps necessary to prevent threats to human health and the environment from the active landfill phase will be taken.

3.5.7 The owner or operator must complete closure activities of each landfill phase, in accordance with the closure plan, within one hundred eighty (180) days following the beginning of closure as specified in this section. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will of necessity, take longer than one hundred eighty (180) days and the owner/operator has taken and will continue to take all steps to prevent threats to human health and the environment.

3.5.8 Following closure of each landfill phase, the owner or operator must submit a report to the Department documenting that closure has been completed in accordance with the approved closure plan. The report, which must be signed by a Colorado registered professional engineer, shall be approved by the Department and placed in the operating record.

3.6 POST-CLOSURE CARE AND MAINTENANCE

3.6.1 (A) Following closure of each landfill or landfill phase, the owner or operator must conduct post-closure care which shall consist of at least the following:

(1) Provisions to prevent nuisance conditions;

(2) Maintaining the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

(3) Monitoring the ground water in accordance with the requirements of Subsection 2.2 And maintaining the ground water monitoring system, if applicable;

(4) Maintaining and operating the leachate collection system in accordance with the requirements in Section 3.2.5 (C). The Department may allow the owner or operator to stop managing leachate if the owner or operator demonstrates that leachate no longer poses a threat to human health and the environment;

(5) Maintaining and operating the gas monitoring system in accordance with the requirements Subsection 2.3.

(6) Name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and

(7) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in the Department's regulations. The Department may approve any other disturbance if the owner or operator demonstrates that disturbance of the final cover, liner or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment.

(B) Discrete landfill units that can be monitored and maintained separately may be allowed to begin and end the post-closure period independent of closure of the entire facility.

3.6.2 Following completion of the post-closure care period the owner or operator must notify the Department that a certification signed by an independent Colorado registered professional engineer or approved by the Department and the local governing body having jurisdiction, verifying that post-closure care has been completed in accordance with the post-closure plan, has been placed in the operating record.

3.6.3 Post-closure care must be conducted for a minimum of thirty (30) years.

The length of the post-closure care period may be:

(A) Decreased by the Department after consultation with the local governing body having jurisdiction if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment; or

(B) Increased by the Department after consultation with the local governing body having jurisdiction if it is determined that the lengthened period is necessary to protect human health and the environment.

SECTION 4.0 FINANCIAL ASSURANCE REQUIREMENTS

4.1 General Provisions

4.1.1 **Purpose**: Colorado law prohibits the operation of solid waste disposal sites and facilities without adequate financial assurance. The purpose of financial assurance is to ensure, at any point in the operating life of a solid waste disposal site and facility, the availability of adequate funds such that the State of Colorado may use those funds to pay the costs of closing the facility, the costs of needed post-closure care of the site and facility, and the costs associated with corrective action of any releases from the site and facility, in the case of bankruptcy or financial insolvency of the owner or operator.

4.1.2 **Scope and Applicability**: This Section 4 applies to any person owning or operating a solid waste disposal site and facility. This includes all locations and facilities at which the deposit and final treatment of solid wastes occur, and includes the following facility types:

(A) Landfills (Sections 2 and 3 of these regulations)

(B) Asbestos Waste Disposal Areas (Section 5 of these regulations)

(C) Incinerator Ash Disposal Sites (Section 6 of these regulations)

(D) Solid Waste Surface Impoundments (Section 9 of these regulations)

(E) Waste Tire Monofills, Waste Tire Processors, and Waste Tire Collection Facilities (Section 10 of these regulations)

(F) Solid Waste Incineration Facilities (Section 11 of these regulations)

(G) Water Treatment Plant Sludge Disposal Facilities (Section 12 of these regulations

(H) Medical Waste Facilities (Section 13 of these regulations)

(I) Composting Facilities (Section 14 of these regulations), and

(J) Commercial Exploration and Production Waste Impoundments (Section 17 of these regulations)

(K) Waste Grease Transporters and Waste Grease Facilities (Section 18 of these regulations)

4.1.3 Exemptions: This Section 4 does not apply to the following facility types:

(A) Transfer Stations (Section 7 of these regulations)

(B) Recycling Facilities (Section 8 of these regulations)

4.1.4 Duration of Financial Assurance Coverage: Financial assurance coverage must be provided before the solid waste disposal site and facility commences operation or any waste is accepted and must continue until a release is granted by the department.

4.1.5 Definition of terms as used in this Section:

(A) Captive Insurance Company - a closely-held company owned by one or more organizations or parents, whose original purpose was, and may continue to be, to insure some or all of the risks of shareholders or affiliated organizations.

(B) Corrective Action – cleanup or remediation of contamination required by or performed under these Regulations and/or Subpart E of the federal regulations promulgated pursuant to the provisions of subtitle D of the federal "Resources Conservation and Recovery Act of 1976," as amended.

(C) Parent Company or Parent - a company that controls other businesses by owning an influential amount of voting stock or control.

(D) Subsidiary - a company that is partly or completely owned by the parent company, which holds a controlling interest in the subsidiary company.

(E) Consultation – the department will inform the local governing authority of their opportunity to consult on certain financial assurance activities per the requirements of this Section 4 and reasonable deadlines by which a response must be received. The department will consider the advice and input received from, and will consult with, the local governing authority as reasonable and appropriate under the circumstances.

Consultation between the department and the local governing authority may consist of telephone conversations, written communications, or meetings, dependent upon the particular circumstances. In the case where a solid waste disposal site and facility is owned or operated by the local governing authority, the department shall consult the local governing authority on matters concerning financial assurance but shall retain approval authority.

(F) Notification - the department or solid wastes disposal site and facility will provide written notice to the local governing authority of certain financial assurance activities per the requirements of this Section 4. If, after notification, a local governing authority requests Consultation, the department shall engage in Consultation with the local governing authority.

4.2 Closure Cost Estimates

4.2.1 Prior to operating, the owner or operator of a solid waste disposal site and facility must have a detailed written estimate, in current dollars, approved by the department after Consultation, of the cost of closing the facility.

(A) The estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan and is limited to the used area (current and previous) of the solid waste disposal site and facility.

(B) The closure cost estimate must be based on the costs of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. The owner or operator may use costs for on-site disposal if the owner or operator can demonstrate that on-site disposal can be accomplished in conformance with other applicable sections of these regulations and disposal capacity will exist at all times over the life of the facility.

(C) The closure cost estimate may not incorporate any salvage value that may be realized with the sale of solid wastes, facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

(D) The owner or operator may not incorporate a zero cost for solid wastes that might have an economic value.

4.3 Post-Closure Cost Estimates

4.3.1: Prior to operating, the owner or operator of a landfill, surface impoundment, land treatment unit, or any other unit where wastes will remain in the unit after closure must have a detailed written estimate, in current dollars, approved by the department after Consultation, of the cost of post-closure care of the site and facility.

(A) The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care at such a site and facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator.

(B) The post-closure cost estimate must be calculated by multiplying the annual post-closure costs by the number of years that post-closure care will be required. All solid waste disposal sites and facilities needing to implement post-closure care must initially provide enough financial assurance to provide for thirty (30) years of post-closure care, maintenance, and monitoring unless a shorter period has been approved by the department.

4.4 Corrective Action Cost Estimates

4.4.1: Once a corrective action plan has been approved, and when required by the department, the owner or operator of any facility with a release of solid waste(s) into the environment that requires corrective action must have a detailed written estimate, in current dollars, approved by the department after Consultation, of the cost of corrective action.

(A) The corrective action cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct corrective action activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator.

(B) The corrective action cost estimate must be calculated by determining the initial remediation costs and adding a multiple of the annual corrective action costs for the number of years corrective action activities will be required.

4.5 Revising Closure, Post-Closure, and Corrective Action Cost Estimates

4.5.1 Annual Inflation Revision: During the active life of the solid waste disposal site and facility, the owner or operator must annually revise the closure, post-closure, and any corrective action cost estimate for inflation and must submit this estimate for department approval. This estimate must occur at least sixty (60) days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with this Section 4. For owners and operators using the financial test or guarantee, the revised cost estimate must be updated for inflation within thirty (30) days after the close of the entity's fiscal year and submitted for department approval. The annual adjustment may be made by recalculating the maximum costs of closure, post-closure, and/or corrective action in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(A) The first adjustment is made by multiplying the original cost estimate by the inflation factor. The result is the revised cost estimate.

(B) Subsequent adjustments are made by multiplying the latest revised cost estimate by the latest inflation factor.

4.5.2: Adjustments and Reimbursements of Financial Assurance Mechanisms

(A) Whenever the current closure, post-closure, and corrective action cost estimates increase to an amount greater than the current amount of the financial assurance mechanism, the owner or operator, within sixty (60) days after the increase, must either increase the value of the mechanism and submit evidence of such increase to the department and local governing authority or obtain other financial assurance to cover the increase.

(B) Whenever the closure, post-closure, and corrective action cost estimates decrease, the financial assurance mechanism may be reduced to the amount of the current closure, post-closure, or corrective action cost estimate following the submittal of sufficient justification to the department and local governing authority and written approval by the department, with notification to the local governing authority. Justification for a decrease can include partial closure of a facility or any other occurrence that legitimately decreases the ultimate costs of closure, post-closure, or corrective action. Such justification shall be made a permanent part of the operating record of the site and facility.

(C) After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request releases for the amount of financial assurance covering the partial or final closure expenditures by submitting itemized receipts to the department. If the department concurs with the accuracy of the justification, the department shall notify the local governing authority, and the amount in excess of the current closure or post closure cost estimates shall be released. Additional procedures for partial expenditure releases may appear for each mechanism within Subsection 4.6.1(D).

(D) If an alternate mechanism is approved by the department, or if the facility is released from the financial assurance requirement, the original mechanism will be returned to the facility.

4.5.3 Five-Year Revised Cost Estimate: After department approval of the initial cost estimate, and during the active life of the facility, the owner or operator must replace original cost estimates with new cost estimates every five (5) years unless otherwise required by the department. This five-year revised cost estimate is intended to capture changes in, or additions to, facility operations and must be a complete re-evaluation of the closure, post-closure, and corrective action costs.

4.5.4: The owner or operator must submit the closure, post-closure, and any corrective action cost estimates, and all annual, five-year revised cost estimates, or other revisions, to the department and the local governing authority.

4.6 Financial Assurance Requirements

4.6.1: General Requirements

(A) All owners and operators must establish financial assurance for closure and post-closure of, and if necessary corrective action at, the solid waste disposal site and facility in the amounts determined by the cost estimates required in Sections 4.2 through 4.5 of these regulations.

(B) The department shall Consult with the local governing authority as required by these regulations in the following circumstances:

(1) Prior to accepting a solid waste disposal site and facility's initial financial assurance via an application for a Certificate of Designation or other application or department requirement.

(2) Prior to accepting initial financial assurance for corrective action.

(3) Prior to terminating a site and facility's financial assurance pursuant to Section 4.6.13.

(4) As necessary in Section 4.6.12.

(C) No local governing authority shall require an applicant for a certificate of designation to obtain any financial assurance mechanism or amount in addition to that required by the provisions of these regulations.

(D) The following are allowable financial assurance mechanisms and instruments that an owner or operator may use, alone or in combination, subject to approval by the department:

(1) Trust fund
(2) Letter of credit
(3) Surety bond
(4) Insurance
(5) Corporate financial test
(6) Local government financial test
(7) Corporate guarantee
(8) Certificate of Deposit

(E) All owners and operators shall annually provide, concurrently to the department and the local governing authority, proof of sufficiency of the financial assurance required by these regulations.

(F) An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of more than one facility. However, per Section 4.6.12, all solid waste disposal sites and facilities under a multiple facility financial instrument must be located in Colorado, and the owner and operator must be the same for all facilities unless special approval of the department is first obtained.

(G) No certificate of designation shall be effective unless and until the required financial assurance mechanism has been fully implemented as required by this section. Failure to properly maintain financial assurance as required by this section may result in the suspension or revocation of the certificate of designation. No person shall operate a solid waste disposal site and facility without being in compliance with the financial assurance requirements contained in this Section 4.

(H) A financial assurance instrument may not be transferred to a new owner or operator unless, as part of the process, the assignment or transfer of the financial instrument(s) or alternate financial assurance has been reviewed and approved by the department and the local governing authority.

(I) The department will give written consent to the owner or operator to terminate the financial assurance mechanism identified Subsection 4.6.1(D) when:

(1) The owner or operator provides alternate financial assurance as specified in this Section; or

(2) The department, after Consultation with the local governing authority, releases the owner or operator from maintaining financial assurance for closure, post-closure care, or corrective action pursuant to Section 4.6.13.

(J) In the event that the owner and operator are separate parties, both will be a part of any discussions prior to the release of the financial instrument.

(K) The department shall assess a fee per Section 1.7.2 to offset the costs of the department's review of the financial assurance information.

(L) If at any time the department shall determine that an owner or operator has insufficient financial assurance or otherwise is not in full compliance with these regulations, it shall notify the owner or operator and may take whatever enforcement actions it deems necessary, including altering pay-in periods and schedules.

(M) No release or reimbursement of funds will be made if a known release has occurred at a site/facility and the owner or operator does not then have sufficient financial assurance to implement the corrective action plan for such release. Further, if within ninety (90) days of a known release, an owner or operator has not established sufficient financial assurance for that release, the department will take whatever enforcement actions it deems necessary. This may include a recommendation to the local governing authority that they suspend or revoke the certificate of designation for the site and facility with the known release. This may also include the department applying the available closure and post-closure funds to implement the corrective action and assess the owner or operator for any deficiency in the closure or post-closure funds which results.

(N) The department is authorized to expend such monies for the third party closure, post-closure, or corrective action as available to the department from the financial assurance mechanisms provided by the owner or operator of the solid waste disposal site and facility.

(O) The department is authorized to contract with one or more private contractors to conduct the third-party closure, post-closure care, or corrective action at a solid waste disposal site and facility, as may be necessary.

(1) Any such contract shall be between the department and the private contractor and the owner or operator shall not be a party to such contract.

(2) The department may disallow a contractor because of conflicts of interest or other reasons.

(3) The department may contract with the local governing authority that issued the certificate of designation to conduct such third party closure, post-closure care, or corrective action.

4.6.2 Trust Funds

(A) Subject to department approval, an owner or operator may establish a trust fund which conforms to the requirements of this Section. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency. An owner or operator of a new or existing facility must submit an originally signed duplicate of the trust agreement to the department. A trust fund must contain, at the end of the operating life of the facility, or within the timeframes defined in this section, sufficient funds to cover closure, post-closure and corrective action costs.

(B) The trustee, to be validated by the comptroller or banking commission, shall be the trust department of a federal or state chartered bank with capital and surplus of not less than $10,000,000, selected by the operator and acceptable to the department. Said bank must be located and legally chartered to operate in one of the fifty (50) states. The trustee shall direct the investment of funds in the trust, using the standard of care of a fiduciary. The investment objectives of the trust are primarily preservation of capital and access to liquidity, and secondarily investment return on capital investment. Investments in the trust may include fixed income mutual funds with average durations of less than five years; United States Treasury bills, notes and bonds with maturities less than ten years; United State agency bonds; money market mutual funds invested solely in United States Treasury or Agency bonds; pre-refunded municipal bonds backed by United State Treasuries or Agencies; bank certificates of deposit and money market accounts up to Federal Deposit Insurance Corporation (FDIC) insurance limits; commercial paper bonds rated “A2P2” or better, corporate bonds rated “AA” or better by Standard and Poor’s Financial Services, or any combination of these investments. If individual bonds are used, a minimum of 10 bonds shall be used with roughly equal spacing of maturities and with the intent to hold such bonds to maturity. No funds shall be released, disbursed, or transferred by the trustee from this trust without the express written authorization of the department.

(C) The wording of the trust agreement must be identical to the wording specified in Appendix A, and no changes will be allowed without department approval. The trust agreement must be accompanied by a formal certification of acknowledgment. Schedule A of the trust agreement must be updated within sixty (60) days after a change in the amount of the current cost estimate covered by the agreement or any change in facility name or ownership.

(D) **Trust Funds for Closure and Post-Closure for Landfills**: The following facility types will be considered "landfills" for the purposes of this Subsection 4.6.2(D): Landfills (covered by Sections 2 and 3 of these regulations); Asbestos Waste Disposal Areas (covered by Section 5 of these regulations); Incinerator Ash Disposal Sites (covered by Section 6 of these regulations); Waste Tire Monofills (covered by Section 10 of these regulations); and Water Treatment Plant Sludge Disposal Facilities (covered by Section 12 of these regulations).

(1) For landfills, payments into the trust fund for closure and post-closure by the owner or operator must, at a minimum, be made annually over the operating life of the facility or twenty (20) years, whichever period is shorter, as estimated in the closure and post closure plan. This period is hereafter referred to as the "pay in period". The payments into the trust fund must be made as follows:

(a) For a new landfill, the first payment must be made before the initial receipt of waste. A receipt from the trustee for this payment must be submitted by the owner or operator to the department and local governing authority before this initial receipt of waste.

(b) A receipt for the initial payment must be submitted to the department by the trustee for both new and existing landfills. The first payment must be at least equal to the current closure, and post closure cost estimate, divided by the number of years in the pay in period.

The amount of each subsequent payment must be determined by this formula:

$$\text{NEXT PAYMENT} = \frac{CE - CV}{Y}$$

Where CE is the current closure and post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period. After the first year, and annually thereafter, the CE shall be multiplied by the preceding year's annual rate of inflation before subtracting CV.

(c) In lieu of using the formula expressed in Subsection 4.6.2(D)(1)(b), the equivalent annual payments into the trust fund may be determined by calculating the net present value of CE.

(2) The owner or operator may accelerate payments into the trust fund or may deposit the full amount of the current cost estimates at the time the fund is established, or at any time thereafter. However, the value of the fund must be maintained at no less than the value that the fund would have if annual payments were made as specified in Subsection 4.6.2(D)(1).

(3) If the owner or operator establishes a trust fund after having used one or more alternate mechanisms specified in Subsection 4.6.1(D), the first payment must be at least the amount that the fund would contain if the trust fund were established initially and all annual payments had been made.

(4) Whenever the current closure and post-closure cost estimates increase or decrease, and are approved by the department, the owner or operator must recalculate the payments into the trust fund based on the new cost estimate (new CE). If the current valuation of the fund is less than the amount which is required using the new CE, the owner or operator must, within sixty (60) days of the approval of the new estimate, either (a) deposit an amount into the fund such that the fund equals the amount in the new CE for the current point in the pay-in period, or (b) obtain other financial assurance as specified in this section to cover the difference.

(E) **Trust Funds for Closure and Post-Closure for Other Types of Solid Waste Disposal Sites and Facilities**: The following facility types will be considered other types of solid waste disposal sites and facilities for the purposes of this Subsection 4.6.2(E): Solid Waste Surface Impoundments (covered by Section 9 of these regulations); Solid Waste Incineration Facilities (covered by Section 11 of these regulations); Medical Waste Facilities (covered by Section 13 of these regulations); Composting Facilities (covered by Section 14 of these regulations); and Commercial Exploration and Production Waste Impoundments (covered by Section 17 of these regulations)

(1) For all facilities listed in Subsection 4.6.2(E) above that were in operation prior to the effective date of this Section 4 (July 15, 2018), a trust fund may be funded as described in Subsection 4.6.2(D).

(2) For all new facilities listed in Subsection 4.6.2(E) above that were not in operation on the effective date of this Section 4 (July 15, 2018), a trust fund must be fully funded, with no pay-in period, and approved by the department before any waste is accepted in the facility.

(F) **Trust Funds for Corrective Action**: Whenever a trust fund will be used to assure performance of corrective action, the owner or operator will calculate a corrective action cost estimate as required by Section 4.4, submit it to the department for approval, and place 100% of the corrective action cost estimate amount into the closure and post-closure trust fund, or a separate trust fund, within sixty (60) days after department approval.

(G) **Reimbursements**

(1) Adjustments to the amount of a trust fund must comply with Section 4.5.2.

(2) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, the owner or operator may submit a written request to the department, and copy the local governing authority, for release of the amount in excess of the current cost estimate covered by the trust fund.

(3) Within sixty (60) days after approving a request from the owner or operator for release of funds as specified in this section, the department will instruct the trustee to release to the owner or operator such funds as the department specifies in writing.

(4) After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized receipts to the department. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. Within sixty (60) days after receiving receipts for partial or final closure activities, the department will instruct the trustee to make reimbursements in those amounts as the department determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the department has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, it may withhold reimbursements of such amounts as is deemed prudent until it determines after Consultation, that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the department does not instruct the trustee to make such reimbursements, it will provide the owner or operator with a detailed written statement of reasons.

(5) An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure care expenditures by submitting itemized bills to the department. Within sixty (60) days after receiving bills for post-closure care activities, the department will instruct the trustee to make reimbursements in those amounts as the department specifies in writing, if the department determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the department does not instruct the trustee to make such reimbursements, it will provide the owner or operator with a detailed written statement of reasons.

(6) If there is one trust fund for both closure and post-closure care, then there will not be any reimbursement for closure costs if there are not sufficient funds to cover both the remaining closure and post-closure care costs.

4.6.3 Letters of Credit

(A) Subject to department approval, an owner or operator may obtain an irrevocable standby letter of credit from an institution that has the authority to issue such letters and whose operations are regulated and examined by a federal or state agency. An owner or operator of a new facility must submit the letter of credit to the department. The letter of credit must be effective before this initial receipt of waste.

(B) A letter of credit must be in full conformance with Article 5 of the uniform commercial code, C.R.S. 4-5-101 et seq., as amended.

(C) The wording of the letter of credit must be identical to the wording specified in Appendix A.

(D) The letter of credit must be irrevocable and issued for a period of at least one (1) year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one (1) year unless, at least one hundred twenty (120) days before the current expiration date, the issuing institution notifies the owner or operator and the department by certified mail, or other trackable delivery service, of a decision not to extend the expiration date. Under the terms of the letter of credit, the one hundred twenty (120) days will begin on the date when the owner or operator and the department have received the notice, as evidenced by the return receipts.

(E) The letter of credit must be issued in an amount at least equal to the current closure, post-closure and corrective action cost estimates, less any amount covered by alternative assurance mechanisms.

(F) Adjustments to the amount of a letter of credit must comply with Section 4.5.2.

(G) Following a determination that the owner or operator has failed to perform final closure or post-closure or corrective action in accordance with the closure or post-closure or corrective action plan and other permit requirements when required to do so, the department may draw on the letter of credit.

(H) If the owner or operator does not establish alternate financial assurance as specified and obtain written approval of such alternate assurance from the department, the department will draw on the letter of credit. The department may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last thirty (30) days of any such extension the department will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the department. The department will notify the local governing authority if it draws on the letter of credit.

4.6.4 Surety Bonds Guaranteeing Performance or Payment

(A) Subject to department approval, an owner or operator may secure a guarantee from a surety company, in the form of a bond, that all closure, post-closure care and corrective action requirements will be fulfilled. An owner or operator of a new facility must submit the bond to the department at least ninety (90) business days before waste is first received. The bond must be effective before this initial receipt of waste. The surety company issuing the bond and any co-sureties must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury, and should be conducting business in Colorado and issue the bond subject to the laws and jurisdiction of the state of Colorado. If the surety is using reinsurance, a treasury reinsurance form must be submitted with the bond or within forty-five (45) days thereafter.

(B) The wording of the surety bond must be identical to the wording in Appendix A.

(C) The bond must guarantee that the owner or operator will provide alternate financial assurance as specified in this Section 4, and obtain the approval of the department within (90) days after receipt by the owner or operator and the department of a notice of cancellation of the bond from the surety.

(D) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(E) The penal sum of the bond must be in an amount at least equal to the current closure, post-closure, and corrective action cost estimate, less amounts covered by alternative mechanisms.

(F) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail, or other trackable delivery service, to the owner or operator and to the department. Cancellation may not occur until one hundred twenty (120) days after the notice of cancellation has been received by both the owner or operator and the department, as evidenced by return receipts. The department will notify the local governing authority of any such cancellation.

4.6.5 Insurance

(A) Subject to department approval, an owner or operator may satisfy the requirements of this Section by obtaining insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the department. An owner or operator of a new facility must submit a copy of the insurance policy and all endorsements to the department at least ninety (90) days before the date on which waste is first received. If an owner or operator changes a current insurance policy, the owner or operator must submit a copy of the proposed insurance policy and all endorsements to the department at least ninety (90) days before changing or replacing the insurance policy.

(B) The insurer must be licensed to transact the business of insurance or be eligible to provide insurance as an excess or surplus lines insurer, in one or more states, and comply with the Title 10 Insurance Code, C.R.S., as amended. The insurance company must be conducting business in Colorado and assure the policy is subject to the laws and jurisdiction of the State of Colorado.

(C) The wording of the certificate of insurance must be identical to the wording specified in Appendix A.

(D) The owner or operator shall submit annually to the department on the anniversary of the insurance policy the following information regarding the insurer's qualifications:

(1) The most recent A.M. Best rating of A- (A minus) or better for the insurer; and

(2) Documentation demonstrating that the insurer is domiciled within an NAIC accredited jurisdiction and is licensed and deemed in good standing with the domiciliary regulator.

(E) The owner or operator of a facility using a Captive Insurance Company, as that term is defined in Section 4.1.5, must do the following:

(1) Annually submit to the department on the anniversary of the insurance policy, items specified in Subsections 4.6.5(D)(1) and (2);

(2) Utilize a Captive Insurance Company that is domiciled in an NAIC accredited jurisdiction and is deemed in good standing with the domiciliary regulator;

(3) Annually submit to the department a Certificate of Good Standing for the Captive Insurance Company, or its equivalent issued by the domiciliary regulator; and

(4) If the parent company decides to cancel the captive insurance policy, or if the Captive Insurance Company no longer meets the requirements of this Subsection 4.6.5 (E), the owner or operator or Captive Insurance Company must provide a one hundred eighty (180) day notice to the department of their intent to cancel the policy and/or their inability to comply with this Section, and must put in place another financial assurance mechanism allowed in Subsection 4.6.1(D) before the end of the 180-day period.

(F) The department may disallow use of the insurer or the Captive Insurance Company by the owner or operator if the applicable requirements of Subsections 4.6.5(D)(1) and (2) and (E) are not met.

(G) The insurance policy must be issued for a face amount at least equal to the current closure, post closure and corrective action cost estimate. The term “face amount” means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(H) The Insurance Policy:

(1) Must guarantee that, where the department determines the owner or operator has failed to perform, funds will be available to the department to close, provide post-closure care of the site and facility, and to provide any necessary corrective action at the site and facility whenever closure, post-closure and corrective action occurs. The policy must also guarantee that once closure, post-closure and corrective action begin, the insurer will be responsible for paying out funds, if department determines the owner or operator has failed to perform, up to an amount equal to the face amount of the policy, upon the direction of the department, to such party or parties as the department specifies.

(2) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided that such consent is not unreasonable withheld.

(I) The owner or operator must maintain the policy in full force and effect until the department consents to termination of the policy by the owner or operator as specified in this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a violation of these regulations, warranting such remedy as the department deems necessary. Such violation will be deemed to begin upon receipt by the department of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration. The department will notify the local governing authority in the event of any policy termination.

(J) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel the policy by sending notice of cancellation by certified mail, or other trackable delivery service, to the owner or operator and the department, one hundred twenty (120) days in advance of cancellation. The department will notify the local governing authority of any such notice of cancellation. However, cancellation, termination, or failure to renew may not occur and the policy, which shall contain a provision with the following terms and conditions, will remain in full force and effect in the event that on or before the date of expiration:

(1) The department, after Consultation with the local governing authority, deems the facility abandoned; or

(2) The certificate of designation is terminated or revoked or a new certificate of designation is denied; or

(3) Closure is ordered by the department or the local governing authority or court of competent jurisdiction; or

(4) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (bankruptcy), U.S. Code; or

(5) The premium due is paid by any person.

(K) If the insurer cancels the policy, the owner or operator must obtain replacement financial assurance as required by this Section 4.

(L) All premiums shall be paid annually and proof of payment shall be supplied to the department and local governing authority.

(M) Adjustments to the amount of an insurance policy must comply with Section 4.5.2.

(N) Commencing on the date that liability to make premium payments for the insurance policy occurs, the owner or operator will thereafter annually increase the face amount of the policy as required by Section 4.5.

(O) Any policy issued pursuant to this section, including by a Captive Insurance Company, will specifically identify each facility covered and the amount of coverage for each facility.

4.6.6 Corporate Financial Test

(A) Subject to department approval, an owner or operator may demonstrate financial assurance if characteristics of the owner's or operator's corporation meet the following:

(1) The owner or operator must satisfy one of the following three conditions:

(a) A current rating for its senior unsubordinated debt of AAA, AA, or A as issued by Standard and Poor's or Aaa, Aa, or A as issued by Moody's; or

(b) A ratio of less than 1.5 comparing total liabilities to net worth; or

(c) A ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus $10 million, to total liabilities.

(2) The tangible net worth of the owner or operator must be greater than:

(a) The sum of the current closure, post closure care, corrective action cost estimates and any other environmental obligations, including guarantees, covered by a financial test plus $10 million except as provided in Subsection 4.6.6(A)(2)(b).

(b) $10 million in net worth plus the amount of any guarantees that have not been recognized as liabilities on the financial statements provided all of the current closure, post-closure care, and corrective action costs and any other environmental obligations covered by a financial test are recognized as liabilities on the owner's or operator's audited financial statements, and subject to the approval of the department.

(3) The owner or operator must have assets located in the United States amounting to at least the sum of current closure, post-closure care, corrective action cost estimates and any other environmental obligations covered by a financial test.

(B) Record keeping and reporting requirements.

(1) The owner or operator must place the following items into the facility's operating record:

(a) A letter signed by the owner's or operator's chief financial officer that:

(i) Lists all the current cost estimates covered by a financial test, including, but not limited to, cost estimates required for solid waste disposal sites and facilities under Section 4 of these regulations and cost factors for all other environmental obligations, if applicable; and

(ii) Provides evidence demonstrating that the owner/operator meets the conditions of either Subsection 4.6.6(A)(1)(a), or (b), or (c) and Subsections 4.6.6(A)(2) and 4.6.6(A)(3).

(b) A copy of the independent certified public accountant's unqualified opinion of the owner's or operator's financial statements for the latest full fiscal year. To be eligible to use the financial test, the owner's or operator's financial statements must receive an unqualified opinion from the independent certified public accountant. An adverse opinion, disclaimer of opinion, or other qualified opinion will be cause for disallowance, with the potential exception for qualified opinions provided in the next sentence. The department may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the department deems that the matters which form the basis for the qualification are insufficient to warrant disallowance of the financial test. If the department does not allow use of the test, the owner or operator must provide alternate financial assurance that satisfies the requirements of this Section.

(c) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies Subsection 4.6.6(A)(1)(b) or (c) that are different from data in the audited financial statements referred to in Subsections 4.6.6(B)(1) and (2) or any other audited financial statement or data filed with the Securities and Exchange Commission, then a special report from the owner's or operator's independent certified public accountant is required. The special report shall be based upon an agreed upon procedures of engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of that comparison, and the reasons for any differences.

(d) If the chief financial officer's letter provides a demonstration that the owner or operator has provided financial assurance for environmental obligations regarding the solid waste disposal site and facility as provided in Subsection 4.6.6(A)(2)(b), then the letter shall include a report from the independent certified public accountant that verifies that all of the environmental obligations covered by a financial test have been recognized as liabilities on the audited financial statements, how these obligations have been measured and reported, and that the tangible net worth of the firm is at least $10 million plus the amount of any guarantees provided.

(2) An owner or operator must place the items specified in Subsection 4.6.6(B)(1) in the operating record and send a copy to the department indicating that these items have been placed in the operating record before the initial receipt of waste or before the effective date of the requirements of this Section, whichever is later in the case of closure, and post-closure care, or no later than one hundred twenty (120) days after the corrective action remedy has been selected in accordance with the requirements of these regulations.

(3) After the initial placement of items specified in Subsection 4.6.6(B)(1) in the operating record, the owner or operator must annually update the information and place updated information in the operating record and send a copy to the department within ninety (90) days following the close of the owner or operator's fiscal year. The department may provide up to an additional forty-five (45) days for an owner or operator who can demonstrate that ninety (90) days is insufficient time to acquire audited financial statements. The updated information must consist of all items specified in Subsection 4.6.6(B)(1).

(4) The owner or operator is no longer required to submit the items specified in this Subsection 4.6.6(B) or comply with the requirements of this Section 4.6.6 when:

(a) The owner or operator substitutes alternate financial assurance as specified in this section that is not subject to these record keeping and reporting requirements; or

(b) The owner or operator is released from the requirements of this Section in accordance with these regulations.

(5) If the owner or operator no longer meets the requirements of Subsection 4.6.6(A), the owner or operator shall, within one hundred twenty (120) days following the close of the owner or operator's fiscal year, obtain alternative financial assurance that satisfies the requirements of this Section, place the required submissions for assurance in the operating record, and notify the department that the owner or operator no longer meets the criteria of the financial test and that alternate financial assurance has been obtained.

(6) The department may, based on a reasonable belief that the owner or operator no longer meets the requirements of Subsection 4.6.6(A), require at any time the owner or operator to provide reports of its financial condition in addition to or including current financial test documentation as specified in Subsection 4.6.6(B). If the department finds that the owner or operator no longer meets the requirements of Subsection 4.6.6(A), the owner or operator must provide alternate financial assurance that meets the requirements of this Section.

(7) When calculating the current cost estimates for closure, post-closure care, corrective action, or the sum of the combination of such costs to be covered, and any other environmental obligations assured by a financial test referred to in this Section 4.6.6, the owner or operator must include cost estimates required for municipal solid waste disposal sites and facilities under this part, as well as cost estimates required for other environmental obligations, if applicable.

4.6.7 Local Government Financial Test

(A) Subject to department approval, an owner or operator may demonstrate financial assurance at least equal to the cost estimates for closure, post-closure care and corrective action if the owner or operator is a local government. The owner or operator must prepare its financial statements and have them audited in conformity with generally accepted accounting principles for governments and have its financial statements audited by an independent certified public accountant.

(B) **Public Notice Component**

The local government owner or operator must place a reference to the closure, post-closure care, or corrective action costs into its next comprehensive annual financial report (CAFR) or audited financial statement after the effective date of this Section or prior to the initial receipt of waste at the facility, whichever is later. Disclosure must include the nature and source of closure and post-closure care requirements, the reported liability at the balance sheet date, the estimated total closure and post-closure care costs remaining to be recognized, the percentage of landfill capacity used to date, and the estimated landfill life in years. A reference to corrective action costs must be placed in the CAFR after the corrective action remedy has been selected in accordance with the requirements of these regulations. The reference may instead be placed in the operation record until issuance of the next available CAFR if timing does not permit the reference to be incorporated into the most recently issued CAFR or budget. For closure and post-closure costs, conformance with Government Accounting Standards Board Statement 18 assures compliance with this public notice. The reference must include the amount of each cost-estimate and the year(s) in which the local government expects these costs to be incurred. References in the budget must occur as budgeted line items if the activities are to occur in the period covered by the budget, but may appear in a supplemental data section if the activities will not occur until after the period covered by the budget.

(C) **Recordkeeping and Reporting Requirements**

(1) The local government owner or operator must place the following items in the facility's operating record and submit to the Department within seven (7) months following the close of the owner or operator’s fiscal year:

(a) A letter signed by the local county commissioners or the governing body of the appropriate municipality that lists all the current cost estimates covered by a financial test, as described in Subsection 4.6.7(B)

(b) The local government's independently audited year-end financial statements for the latest fiscal year, including the unqualified opinion of the auditor who must be an independent, certified public accountant or an appropriate State agency that conducts equivalent comprehensive audits; and

(c) A copy of the comprehensive annual financial report used to comply with this section or certification that the requirements of General Accounting Standards Board Statement 18 have been met.

(d) Whenever the financial assurance cost estimates are replaced (typically every five years per Section 4.5.3 of these regulations), the owner or operator must ensure that the updated costs are included in the next CAFR. If the effective date of the financial assurance cost estimate replacement is after the balance sheet date of the next CAFR, the change to the liability associated with landfill closure and post closure care costs may be reported in the CAFR issued the following year.

(e) In the case of corrective action, these cost estimates will need to be included in the next available CAFR in accordance with the requirements of Section 2.2 and Appendix B6.

(2) The local government owner or operator is no longer required to meet the requirements of Subsection 4.6.7(C) when the owner or operator is released from the requirements of this Section in accordance with Section 4.6.13.

(3) The department, after reviewing the CAFR submitted by the local government owner or operator, may require additional reports of financial condition from the local government at any time. If the department finds, on the basis of such reports or other information, that the owner or operator no longer maintains a positive net position at the end of the most recent fiscal year, the local government must provide alternate financial assurance in accordance with Subsection 4.6.7(C)(5).

4.6.8 Corporate Guarantee.

(A) Subject to department approval, an owner or operator may meet the requirements of this Section by obtaining a written corporate guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor must meet the requirements for owners or operators in Section 4.6.6 and must comply with the terms of the guarantee. A certified copy of the guarantee must be placed in the facility's operating record along with copies of the letter from the guarantor's chief financial officer and accountants' opinions. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter from the guarantor's chief financial officer must describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter must describe this “substantial business relationship” and the value received in consideration of the guarantee.

(B) The guarantee must be effective and all required submissions placed in the operating record and a copy submitted to the department before the initial receipt of waste or before the effective date of the requirements of these regulations whichever is later, in the case of closure and post-closure care, or in the case of corrective action no later than one hundred twenty (120) days after the corrective action remedy has been selected in accordance with the requirements of these regulations.

(C) The terms of the guarantee must provide that:

(1) If the owner or operator fails to perform closure, post-closure care, and/or corrective action of a facility covered by the guarantee, the guarantor will:

(a) Perform, or pay a third party to perform, closure, post-closure care, and/or corrective action as required (performance guarantee); or

(b) Establish a fully funded trust fund as specified in Section 4.6.2 in the name of the owner or operator (payment guarantee).

(2) The guarantee will remain in force for as long as the owner or operator is required to comply with the applicable financial assurance requirements or unless the guarantor sends prior notice of cancellation by certified mail, or other trackable delivery service, to the owner or operator and to the department. Cancellation may not occur, however, during the one hundred twenty (120) days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the department, as evidenced by the return receipts.

(3) If notice of cancellation is given, the owner or operator must, within ninety (90) days following receipt of the cancellation notice by the owner or operator and the department, obtain alternate financial assurance, place evidence of that alternate financial assurance in the facility operating record, and notify the department and the local governing authority. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor must provide that alternate assurance within one hundred twenty (120) days of the cancellation notice, obtain alternative assurance, place evidence of the alternate assurance in the facility operating record, and notify the department and the local governing authority.

(D) If a corporate guarantor no longer meets the requirements of Subsection 4.6.6(A), the owner or operator must, within ninety (90) days, obtain alternative assurance, place evidence of the alternate assurance in the facility operating record, and notify the department and the local governing authority. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor must provide that alternate assurance within the next thirty (30) days.

(E) The owner or operator is no longer required to meet the requirements of this Section 4.6.8 when:

(1) The owner or operator substitutes alternate financial assurance as specified in this section; subject to department approval or

(2) The owner or operator is released by the department after Consultation from the requirements of this Section in accordance with these regulations.

4.6.9 Reserved

4.6.10 Certificates of Deposit

(A) Subject to department approval, an owner or operator may establish a certificate of deposit. An owner or operator of a new or existing facility must submit the original certificate of deposit to the department with a copy to the local governing authority. The certificate of deposit must be effective before the initial receipt of waste. The issuing institution must have the authority to issue certificate of deposits and must be regulated, insured, and examined by a federal or state agency.

(B) The issuing institution, to be validated by the comptroller or banking commission, shall be a federal or state chartered bank with capital and surplus of not less than $10,000,000, selected by the operator and acceptable to the department. Said bank must be located and legally chartered to operate in one of the fifty (50) states. The institution shall direct the investment of funds in the certificate of deposit, using the standard of care of a fiduciary. No funds shall be released, disbursed, or transferred by the institution from this certificate of deposit without the express written authorization of the department.

(C) The wording of the certificate of deposit must be identical to the wording specified in Appendix A, unless otherwise approved by the department.

(D) **Certificates of Deposit for Closure and Post-Closure Care for Landfills**: The following facility types will be considered "landfills" for the purposes of this Subsection 4.6.10(D): Landfills (covered by Sections 2 and 3 of these regulations); Asbestos Waste Disposal Areas (covered by Section 5 of these regulations); Incinerator Ash Disposal Sites (covered by Section 6 of these regulations); Waste Tire Monofills (covered by Section 10 of these regulations); and Water Treatment Plant Sludge Disposal Facilities (covered by Section 12 of these regulations).

(1) For landfills, payments into the certificate of deposit for closure, post-closure and corrective action by the owner or operator must, at a minimum, be made annually over the operating life of the facility or twenty (20) years, whichever period is shorter, as estimated in the closure and post closure plan. This period is hereafter referred to as the "pay-in period". The payments into the certificate of deposit must be made as follows:

(a) For a new landfill, the first payment must be made before the initial receipt of waste. A receipt from the issuing institution for this payment must be submitted by the owner or operator to the department before this initial receipt of waste.

(b) A receipt for the initial payment must be submitted to the department by the issuing institution for both new and existing landfills. The first payment must be at least equal to the current closure and post-closure cost estimate, divided by the number of years in the pay-in period.

The amount of each subsequent payment must be determined by this formula:

$$\text{NEXT PAYMENT} = \frac{CE - CV}{Y}$$

Where CE is the current closure and post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period. After the first year, and annually thereafter, the CE shall be multiplied by the preceding year's annual rate of inflation before subtracting CV.

(c) In lieu of using the formula expressed in Subsection 4.6.10(D)(1), the equivalent annual payments into the certificate of deposit may be determined by calculating the net present value of CE.

(2) The owner or operator may accelerate payments into the certificate of deposit or may deposit the full amount of the current cost estimates at the time the fund is established, or at any time thereafter. However, the value of the certificate of deposit must be maintained at no less than the value that the certificate of deposit would have if annual payments were made as specified in Subsection 4.6.10(D)(1).

(3) If the owner or operator establishes a closure and post-closure certificate of deposit after having used one or more alternate mechanisms specified in Subsection 4.6.1(D), the first payment must be at least the amount that the certificate of deposit would contain if the certificate of deposit were established initially and all annual payments had been made.

(4) Whenever the current closure and post-closure cost estimates increase or decrease, and are approved by the department, the owner or operator must recalculate the payments into the certificate of deposit based on the new cost estimate (new CE). If the current valuation of the certificate of deposit is less than the amount which is required using the new CE, the owner or operator must, within sixty (60) days of the approval of the new estimate, either (a) deposit an amount into the certificate of deposit such that the fund equals the amount in the new CE for the current point in the pay-in period, or (b) obtain other financial assurance as specified in this section to cover the difference.

(E) **Certificates of Deposit for Closure and Post-Closure Care for Other Types of Solid Waste Disposal Sites and Facilities**: The following facility types will be considered other types of solid waste disposal sites and facilities for the purposes of this Subsection 4.6.10(E): Solid Waste Surface Impoundments (covered by Section 9 of these regulations); Solid Waste Incineration Facilities (covered by Section 11 of these regulations); Medical Waste Facilities (covered by Section 13 of these regulations); Composting Facilities (covered by Section 14 of these regulations); and Commercial Exploration and Production Waste Impoundments (covered by Section 17 of these regulations)

(1) For all facilities listed in this section that were in operation prior to the effective date of this Section 4 (July 15, 2018), a certificate of deposit may be funded as described in Subsection 4.6.10(D).

(2) For all new facilities listed in Subsection 4.6.10(E) above that were not in operation on the effective date of this Section 4 (July 15, 2018), a certificate of deposit must be fully funded, with no pay-in period, and approved by the department with Consultation before any waste is accepted in the facility.

(F) **Certificate of Deposit for Corrective Action**: Whenever a certificate of deposit will be used to assure performance of corrective action, the owner or operator will calculate a corrective action cost estimate as required by Section 4.4, submit it to the department for approval, and place 100% of the corrective action cost estimate amount into the closure and post-closure certificate of deposit, or a separate certificate of deposit, within sixty (60) days after department approval.

(G) The certificate of deposit must be accompanied by an original signed copy of a Collateral Assignment of Certificate of Deposit form. The wording of the collateral assignment of certificate of deposit must be identical to the wording specified in Appendix A, unless otherwise approved by the department.

(H) The certificate of deposit must provide that the expiration date will be automatically extended unless, at least sixty (60) days before the current expiration date, the issuing institution notifies the owner or operator and the department and the local governing authority, by certified mail or other trackable delivery service, of a decision not to extend the expiration date. Under the terms of the certificate of deposit, the sixty (60) days will begin on the date when the owner or operator and the department has received the notice, as evidenced by the return receipts. The issuing institution shall give sixty (60) day notification of maturity of the certificate of deposit to the department and the owner or operator. If the owner or operator, the department, and the local governing authority have received notice from the issuing institution that it has decided not to extend the certificate of deposit beyond the current expiration date, the owner or operator must establish adequate alternative financial assurance as required by these regulations. If the owner or operator does not establish alternate financial assurance and obtain written approval of such alternate assurance from the department within forty-five (45) days of such notice by the issuing institution, the department will withdraw the money in the certificate of deposit. The department will notify the local governing authority if the department draws on the certificate of deposit. The money will be kept by the department until needed for closure, post-closure, and/or corrective action or until the owner or operator has established a department-approved alternate financial assurance mechanism.

(I) The issue amount of the certificate of deposit must be in an amount at least equal to the current closure, post-closure and corrective action cost estimates, less amounts covered by alternative mechanisms.

(J) Following a determination that the owner or operator has failed to perform final closure or post closure or corrective action in accordance with the closure or post closure or corrective action plan and other permit requirements when required to do so, the department may draw on the certificate of deposit.

(K) The department will return the certificate of deposit to the issuing institution for termination when the requirements of Section 4.5.2 have been satisfied.

4.6.11 Use of Multiple Financial Mechanisms:

An owner or operator may satisfy the requirements of this Section by establishing more than one financial mechanism per solid waste disposal site and facility. The mechanisms must be as specified in Subsection 4.6.1(D) of this Section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide full financial assurance for an amount at least equal to the current closure, post-closure and corrective action cost estimates. The amount of financial assurance for each financial mechanism shall be stated on each agreement per these Regulations. When use of a financial mechanism for closure and post-closure care or corrective action of the site and facility becomes necessary, the department may choose the order in which to use the mechanisms or may choose to use all concurrently. The department will notify the local governing authority how the department will be draw upon the mechanism(s).

4.6.12 Use of a Financial Mechanism for Multiple Facilities:

An owner or operator may use a financial assurance mechanism specified in Subsection 4.6.1(D) to meet the requirements of more than one solid waste disposal site and facility; provided, however, that all solid waste disposal sites and facilities are located in Colorado and the owner and operator are the same, unless special approval of the department, after Consultation with the local governing authority, is first obtained. Evidence of financial assurance submitted to the department and the local governing authority must include a list showing, for each facility, name, address, and the amount of funds for closure assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if separate mechanisms have been established and maintained for each site and facility. In directing funds available through the mechanism for closure, post-closure or corrective action of any of the sites and facilities covered by the mechanism, the department, with notice to the local governing authority, may direct only the amount of funds designated for that site and facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

4.6.13 Release of the Owner or Operator from the Requirements of this Section. After receiving certifications from the owner or operator and a Colorado registered professional engineer that final closure, post-closure and corrective action has been completed in accordance with the approved plans, the department shall verify that the closure, post-closure and corrective action has met the requirements as established and shall Consult with the local governing authority. Once verified, the department will notify the owner and operator that they are no longer subject to the requirements of this Section.

If there is reason to believe that the closure, post-closure and corrective action activities have not been made in accordance with the approved plan(s), the department shall provide the owner or operator with a detailed written statement of any deficiencies.

4.6.14 Failure to properly maintain financial assurance as required by this Section 4 and the certificate of designation may result in the suspension or revocation of a certificate of designation

SECTION 5 ASBESTOS WASTE MANAGEMENT

5.1 GENERAL PROVISIONS: The provisions of Section 5.1-5.4 shall apply to all asbestos waste disposal areas.

5.1.1 (A) Any person who disposes of asbestos waste and any owner or operator of an asbestos waste disposal area, shall comply with the requirements of Sections 1, 2, 3, and 5 of these regulations.

(B) If a conflict exists between the requirements of this section and Sections 1, 2, or 3, the requirements of Section 5 shall control.

5.1.2 Each asbestos waste disposal area shall comply with the rules and regulations of the Department, the Water Quality Control Commission, the Air Quality Control Commission and each applicable local law and ordinance. Each asbestos waste disposal area shall be located, designed, constructed, operated and maintained so that it will protect public health, worker safety, and the environment.

5.1.3 No asbestos waste management activities shall cause or contribute to the occurrence of any visible emissions.

5.2 NON - FRIABLE ASBESTOS WASTE DISPOSAL AREAS: The provisions of this subsection 5.2 shall apply to each asbestos waste disposal area that receives non - friable asbestos waste.

5.2.1 Within 24 hours following receipt of non - friable asbestos waste and any storage thereof in accordance with Section 5.4 of these regulations, the waste shall be covered with a minimum of nine inches (9") of soil or eighteen inches (18") of non - asbestos cover material. The Department and local governing body having jurisdiction may approve on a case-by-case basis alternative materials of an alternative thickness. All other requirements of Sections 1.1 through 1.9 and 2.0 and 3.0 of these regulations regarding placement of "adequate cover" shall also apply to the disposal of non - friable asbestos waste. Operators shall minimize the potential for release from and exposure to asbestos waste after placement in each disposal area and shall not compact the waste prior to application of cover materials. At no time shall compaction equipment come into contact with asbestos waste, containers, or packaging.

5.2.2 Non - friable asbestos waste management shall be accomplished in a manner that minimizes any change in the friability of the waste.

5.3 FRIABLE ASBESTOS WASTE DISPOSAL AREAS: The provisions of this subsection 5.3 shall apply to each asbestos waste disposal area that receives friable asbestos waste.

5.3.1 (A) No friable asbestos waste shall be received or disposed of at a solid waste facility unless expressly authorized by an approved design and operations plan. This design and operations plan shall describe the friable asbestos disposal area, areas, or work practices used for onsite disposal of friable asbestos waste and shall contain provisions for a response to a spill or release of friable asbestos waste material.

5.3.2 The Department may approve specific disposal activities for friable asbestos waste on a case-by-case basis in accordance with Section 1.5 of these regulations.

5.3.3 No friable asbestos wastes shall be disposed of within one hundred feet (100') in all directions of the property line of a solid waste disposal site and facility.

5.3.4 Warning signs and fencing, or appropriate controls as approved by the Department, shall be installed and maintained at the perimeter of each asbestos waste disposal area where friable asbestos waste is disposed of, in accordance with the following minimum requirements:

(A) A fence shall be placed around the entire area where there has been or will be disposal of friable asbestos waste to ensure the restriction of activities in that area and to preclude the entry of unauthorized and unprotected personnel.

(B) Warning signs shall be displayed as follows: one at each entrance to each asbestos waste disposal area; and one or more on each side of the fenced area based on the length of the side, at a rate of one for every three hundred linear feet (300') of fence.

(C) Warning signs shall be posted in such a manner and in such locations that the legend can be easily read.

(D) Each warning sign shall be an upright rectangle with minimum measurements of twenty inches by fourteen inches (20"x14").

(E) Each warning sign shall display the legend set out below. The letter sizes used in the legend shall be as specified below or of a visibility at least equal to those specified below.

Legend	Notation
Asbestos Waste Disposal Area	1 inch
Do Not Create Dust	0.75 inch
Breathing Asbestos Is Hazardous to Your Health	14 point

(F) Spacing between any two lines in the legend of the warning signs must be at least equal to the height of the upper of the two lines.

(G) Facilities that have existing signs referring to Asbestos Waste Disposal Sites may continue to use these signs until replacement is warranted.

5.3.5 (A) No friable asbestos waste shall be accepted for disposal unless it is tightly sealed in at least two 6 mil, leak - tight plastic bags or in a wrapping or other container deemed equivalent by the Department.

(B) The outermost layer of any containers holding friable asbestos waste shall be labeled with either of the following legends in type at least .5 inches tall:

(1)	CAUTION CONTAINS ASBESTOS AVOID OPENING OR BREAKING CONTAINER BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH
(2)	DANGER CONTAINS ASBESTOS FIBERS AVOID CREATING DUST CANCER AND LUNG DISEASE HAZARD

5.3.6 All activities involved in the disposal of friable asbestos waste, including placement in an asbestos waste disposal area, covering the asbestos waste, and compacting the fill shall be conducted in a manner that minimizes the potential for the rupture or opening of any bags, wrappers or other containers holding the friable asbestos waste and that prevents the emission of asbestos to the air.

5.3.7 (A) Within 24 hours following receipt of friable asbestos waste and any storage thereof in accordance with Section 5.4 of these regulations, the waste shall be covered with a minimum of nine inches (9”) of soil or eighteen inches (18”) of non - asbestos cover material. The Department and local governing body having jurisdiction may approve on a case-by-case basis alternative materials of an alternative thickness. All other requirements of Sections 1.1 through 1.9 and 2.0 and 3.0 of these regulations regarding placement of “adequate cover” shall also apply to the disposal of friable asbestos waste. Operators shall minimize the potential for release from and exposure to asbestos waste after placement in the disposal area and shall not compact the waste prior to application of cover materials. At no time shall compaction equipment come into contact with asbestos waste, containers or packaging.

5.3.8 Structurally rigid containers that hold friable asbestos waste shall be covered as specified in Section 5.3.7 within seventy-two hours of receipt or termination of storage. Precautions must be taken to avoid damage or rupture of the asbestos containers during handling. Before the owner/operator compacts any friable asbestos waste containers, the containers shall be covered with a minimum of nine inches (9”) of soil or eighteen inches (18”) of non-asbestos cover material.

5.3.9 (A) Any friable asbestos waste received in packaging other than a structurally rigid container shall be received and disposed of only if:

(1) An asbestos waste disposal area necessary for the disposal of such friable asbestos waste is prepared prior to the arrival of such waste at the landfill;

(2) A minimum of nine inches (9") of soil or eighteen inches (18") of non - asbestos cover material and the equipment necessary to cover the asbestos waste upon its placement in each asbestos waste disposal area is available to cover the asbestos waste per the requirements of Sections 5.3.7 and 5.3.8;

(3) All unrelated landfill activities within one hundred (100') feet in all directions of each asbestos waste disposal area are stopped during the placement, covering, and compaction of the asbestos waste;

(4) No non - essential persons are allowed within one hundred (100') feet in all directions of each asbestos waste disposal area during the placement, covering, and compaction of the asbestos waste;

(5) Sustained wind speeds at the asbestos waste disposal area do not exceed twenty miles per hour (20 mph) and gusts do not exceed thirty miles per hour (30 mph);

(6) A source of water is provided at the site to facilitate wetting the asbestos wastes if any container is breeched during placement of asbestos waste.

(B) Any friable asbestos waste received in packaging other than structurally rigid containers shall be disposed of by placement in an asbestos waste disposal area that is at least one hundred feet (100') in all directions from any area being used concurrently for the disposal of other waste.

5.3.10 The owner or operator of an asbestos waste disposal area where friable asbestos waste has been disposed of shall:

(A) Maintain operating records required under subsection 2.4 of these regulations, including permanent records of the date and amount of each receipt of asbestos waste, the location of each asbestos waste disposal area within the boundaries of the solid waste disposal facility and the quantity of asbestos waste at each such location. These records shall be of sufficient specificity to identify the location and depth of the asbestos waste.

(B) Ensure that records made to comply with this subsection are readily available at all times and are made available to the local governing body having jurisdiction and the Department upon request.

(C) Such records shall be submitted to the local governing body having jurisdiction within thirty (30) days after the closure of the asbestos waste disposal area has been completed.

5.4 STORAGE OF ASBESTOS WASTE: Storage of asbestos waste at an asbestos waste disposal area, prior to burial, shall be conducted in accordance with the following requirements:

5.4.1 Asbestos waste shall be stored only in rigid containers and in segregated locations used solely for the purpose of such storage where asbestos waste packages can be handled, stored and maintained without being opened or disturbed.

5.4.2 Asbestos waste shall be stored at an asbestos waste disposal area for no more than twenty (20) calendar days prior to burial.

5.4.3 A warning sign shall be posted on each side of an area where asbestos waste is stored prior to burial. Such signs shall conform to subsection 5.3.4(C), (D) and (F). The legend on each such sign shall conform to the requirements of subsection 5.3.4(E) except that the first line shall read "Asbestos Waste Storage".

5.5 MANAGEMENT OF REGULATED ASBESTOS-CONTAMINATED SOIL (RACS):

5.5.1 SCOPE AND APPLICABILITY

The requirements of Section 5.5 apply to the owner or operator of any property with regulated asbestos contaminated soil (RACS) at which soil-disturbing activities are occurring or planned. The owner/operator may choose to follow the procedures set forth in Sections 5.5.1(A) and 5.5.1(B) below when debris is exposed or disturbed to determine if the debris is RACS. The requirements of Sections 5.5.1(C) and 5.5.1(D) apply when RACS is exposed or disturbed.

(A) Any person who disturbs debris or exposes debris during a soil disturbing activity shall characterize debris to determine the applicability of Section 5.5, and have appropriate personnel to characterize debris. Any person who disturbs debris or exposes debris during a soil disturbing activity shall:

(1) Conduct visual inspection of disturbed material;

(2) If debris is exposed during soil disturbing activities, and/or the soil or ash is known to contain asbestos fibers, through documented evidence, then Section 5.5 is applicable. If there is no visible RACS or documented evidence of RACS at a site, an owner/operator does not have a duty under these regulations to sample or otherwise investigate for RACS prior to commencing soil disturbing activities;

(3) If debris is exposed that only contains green waste, and/or natural stone with no associated material suspected of containing asbestos fibers, then Section 5.5 is not applicable.

(4) In the event of an emergency in which a soil disturbing activity in an area of debris must continue or commence at once, a RACS determination in accordance with Section 5.5.1(B) may be postponed during the initial response to the immediate emergency. However, the RACS determination must be made within 48 hours of the initial emergency response.

(5) Any person who exposes but does not disturb debris during a soil disturbing activity shall have protocols to characterize debris as required by this section 5.5.1(A) and stabilize any debris determined to be RACS as required by Section 5.5.7(K), unless the debris is exempted by subsection 5.5.2(A) through (F).

(B) Any person who disturbs debris during soil disturbing activities, when the subject debris is not excluded within Section 5.5.1(A)(3), must inspect the debris, through continuous visual inspection during soil disturbing activities, to determine if the debris is, or contains, suspect asbestos-containing material (ACM). If debris is exposed that only contains metal, glass, plastic, wood, and/or bare concrete with no associated material suspected of being ACM (such as sealants, adhesives, mastics, coatings, adhered materials, or resins), then Section 5.5 is not applicable. The person(s) conducting the visual inspection must be a Qualified Project Monitor (QPM) or a Certified Asbestos Building Inspector (CABI).

All suspect ACM(s) must be:

(1) Assumed to be ACM; or

(2) Sampled by a CABI. The samples shall be analyzed by a National Voluntary Laboratory Accreditation Program (NVLAP) participating laboratory utilizing Polarized Light Microscopy (PLM) (EPA Method 600/R-93/116 or equivalent) to determine if it is ACM; or

(3) Determined to be ACM, or non-ACM, through the use of documentation specific to the material observed in the field establishing the asbestos content of the material (e.g. laboratory analysis results from previous encounters with the same material).

(4) The ACM determination shall be made within seven (7) calendar days of discovery of the debris.

(a) Within 24 hours of discovery of debris, and until the ACM determination is made, the debris shall be stabilized in accordance with Section 5.5.4(A)(3) of these regulations.

(b) No additional disturbance, other than necessary to perform the required stabilization in Section 5.5.4(A)(3), of the debris shall occur prior to the asbestos determination.

(5) A person who disturbs debris, determined or assumed to be or contain ACM per this 5.5.1(B), shall determine if the ACM is exempted in accordance with Section 5.5.2 of these regulations.

(6) A person who disturbs debris, determined or assumed to be or contain ACM per this 5.5.1(B), shall make a RACS determination by:

(a) Assuming the debris containing ACM is RACS and managing the RACS in accordance with Section 5.5 of these regulations; or

(b) Applying site and material specific knowledge of the presence or absence of RACS based on observation and/or documented evidence about the nature of ACM(s).

(7) The owner/operator shall retain, or make available for inspection, records of all RACS determinations onsite for the duration of the debris disturbance, which shall be retained by the owner/operator for a period of six (6) months after the completion of debris disturbing activities.

(C) Soil or ash known to contain non-visible asbestos, based on documented evidence, is RACS and if exposed or disturbed shall be managed in accordance with these regulations.

(D) If soil, ash, or debris is, or contains, RACS then:

(1) RACS that is exposed or disturbed shall be managed, disposed of, or reused in accordance with these regulations.

(2) Removal of ACM that is on, or comprises, a facility component, that is located on or in soil that will be disturbed, shall be conducted under this Section 5.5, in accordance with work practices in Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B), Section III.V, and is not subject to the permit requirements of 5 CCR 1001-10, Part B, if the total quantity of ACM is below the following trigger levels:

(a) 260 linear feet on pipes; or

(b) 160 square feet on other surfaces; or

(c) The volume of a 55-gallon drum.

(3) RACS that is generated and not disposed of or reused in compliance with Section 5.5.8 of these regulations is solid waste and shall be managed in accordance with the landfill requirements of the Colorado Solid Wastes Disposal Sites and Facilities Act (C.R.S. 30-20, Part 1) and Sections 5.1 through 5.4 of these regulations.

(4) Except as provided in Section 5.5.1(D)(5), a person who disturbs or exposes RACS shall make the decision upon the initial discovery of RACS to either manage the RACS in accordance with Section 5.5, or cease soil disturbing activities and permanently stabilize the disturbed or exposed RACS to control the release of asbestos fibers in accordance with one of the following:

(a) Cover RACS with geofabric, or equivalent visible and physical barrier, and restore the site to pre-disturbance conditions using fill suitable for unrestricted use; or

(b) Cover RACS with geofabric, or other visible and physical barrier, followed by eighteen (18) inches of fill suitable for unrestricted use, and vegetation; or

(c) Cover RACS with geofabric, or other visible and physical barrier, followed by six (6) inches of fill suitable for unrestricted use, and concrete or asphalt; or

(d) Cover RACS with geofabric, or other visible and physical barrier, followed by fill suitable for unrestricted use to grade for vertical excavation faces or trenches; or

(e) Alternate cover designs as approved by the Department.

(5) RACS that is driven upon is an RWA and shall be kept adequately wet in order to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds. All equipment surfaces that have come into contact with RACS shall be decontaminated per Section 5.5.7(I) before leaving the RWA.

5.5.2 EXEMPTIONS

(A) Removal of ACM on a facility component with asbestos quantities above the trigger levels, as defined in 5.5.1(D)(2), is subject to the permit and abatement requirements of Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B), and is therefore not subject to this Section 5.5., but shall still comply with Sections 5.1 through 5.4 of these regulations.

(B) Spill response activities that are subject to the requirements of Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B) are not subject to the requirements of Section 5.5, but shall still comply with Sections 5.1 through 5.4 of these regulations.

(C) Ambient occurrences of asbestos fibers in soil that are demonstrated to be the result of background conditions and not the result of site specific activities are not subject to the requirements of this Section 5.5. This background demonstration shall be submitted to, and approved by, the Department prior to the exemption being exercised.

(D) During active solid waste disposal operations, asbestos waste disposal areas that have a certificate of designation are not subject to Section 5.5, but shall comply with the facility's Engineering Design and Operations Plan.

(E) De minimis projects involving a total RACS disturbance of less than one (1) cubic yard, utilizing low-emission methods, are exempt from this Section 5.5, except for the decontamination procedures in Section 5.5.7(I) and the disposal requirements in Section 5.5.8.

(F) Projects conducted directly by a homeowner on their residence not used for the purpose of generating of income, including residential landscaping projects and other private residential soil-disturbing projects conducted after the primary dwelling is built, such as planting trees, digging holes for fence posts, installing sign posts, gardening, other such projects conducted by homeowners on their residence, as described above, are not subject to this Section 5.5, but shall still comply with Sections 5.1 through 5.4 of these regulations.

(G) Soil disturbing activities involving Non-RACS, where no RACS is present or generated, are not subject to the requirements of Section 5.5, but Non-RACS must be disposed as non-friable asbestos waste in accordance with the disposal requirements set forth in Section 5.2 of these regulations.

(H) Soil disturbing activities involving debris that only contains metal, glass, plastic, wood, and/or bare concrete with no associated material suspected of being ACM (such as sealants, adhesives, mastics, coatings, adhered materials, or resins), as determined by a CABI, QMP, or generator knowledge, are not subject to the requirements of Section 5.5.

(I) Soil disturbing activities involving debris that only contains green waste or natural stone are not subject to the requirements of Section 5.5.

5.5.3 TRAINING

(A) All personnel inside the regulated work area (RWA) during the disturbance of RACS shall have annual awareness training. Except as provided in Section 5.5.3(F), this training requirement also applies to equipment operators and drivers of trucks carrying contaminated material for offsite disposal or reuse. This training shall cover information necessary to comply with Section 5.5 requirements and the approved project specific RACS management plan (PSMRP) or standard operating procedure (SOP) (if any) including:

1) General asbestos awareness; including health effects; and

2) Overview of the requirements of Section 5.5 and its implementation; and

3) Overview of suspect ACM that requires further evaluation by a CABI; and

4) Overview of RACS and Non-RACS; and

5) Worker protection, including respiratory protection. An overview of the levels of personal protective equipment (PPE) required for various activities and conditions; and

6) Decontamination requirements for equipment and personnel including the establishment of decontamination station(s); and

7) Engineering controls in order to prevent visible emissions from leaving the RWA or demonstrate that asbestos is not leaving the RWA above risk-based air thresholds; and

8) Overview of RACS handling procedures.

This training shall be conducted by a CABI who is familiar with the site specific plan and/or the Standard Requirements in Section 5.5.7. Records of this training shall be retained, by the owner/operator, and be available for inspection, for a minimum of one year from the date of the training.

(B) In addition to the annual asbestos awareness training required in 5.5.3(A), all personnel inside the RWA during the disturbance of RACS shall have per-project site-specific awareness training. Except as provided in Section 5.5.3(F), this training requirement also applies to equipment operators and drivers of trucks carrying contaminated material for offsite disposal or reuse. This training shall cover site-specific information necessary to comply with Section 5.5 and the selected management approach for the project (PSRMP, SOPs, or the standard requirements of Section 5.5.7), including:

1) An overview of the items from 5.5.3(A) as they pertain to site specific provisions and/or conditions that will affect work practices; and

2) Project chain-of-command and identification of authorized personnel with stop work authority, and identification of QPM(s); and

3) Hands on training specific to the soil disturbing activities the individual will be performing subject to this Regulation.

This training shall be provided by a CABI who meets the training requirements of 5.5.3(D). Records of this training shall be retained by the owner/operator, and be available for inspection, for the duration of the project for which the training was conducted.

(C) Qualified Project Monitors shall have, at a minimum:

1) Annual asbestos awareness training and site specific awareness training under Section 5.5.3(A) and (B); and

2) Training from a CABI on identifying debris, exempted materials under Section 5.5.1(A)(3), and the assumption of debris to be RACS as outlined in Section 5.5.1; and

3) Training from a CABI on how to implement the standard requirements under Section 5.5.7 and how to perform the duties that a QPM may perform in lieu of a CABI; and

4) Training from a CABI on how to implement the provisions of the chosen RACS management approach (PSRMP, SOPs, or standard requirements of Section 5.5.7) and how to perform the duties that a QPM may perform in lieu of a CABI; and

5) Forty (40) verifiable hours of direct experience implementing Section 5.5.

Records of this training shall be retained by the owner/operator, and be available for inspection for the duration of the project for which the training was conducted.

(D) Visual Inspection and identification of RACS shall be conducted by a CABI, with forty (40) verifiable hours of on the job asbestos in soils experience on a minimum of three (3) different asbestos in soils projects, conducted under either AQCC Regulation No. 8 or Section 5.5. The CABI shall be independent of the general contractor (GC) and/or abatement contractor unless the CABI and the GC or abatement contractor are both direct employees of the property owner. However, the GC or abatement contractor may hire a subcontractor CABI, but the CABI shall not be a direct employee of the GC or abatement contractor.

(E) Air monitoring conducted in accordance with this Section 5.5 shall be performed by an Air Monitoring Specialist (AMS).

(F) Truck drivers who do not complete the training in 5.5.3(A) and (B) are ancillary workers. Soil disturbing activities must cease if the truck driver is present within the RWA unless the driver remains in the cab of the truck, the truck's windows and doors remain closed, and the air handling system remains off while the truck is inside the RWA.

5.5.4 RESPONSE TO UNPLANNED RACS DISCOVERY

Soil disturbing activities that expose RACS without previously approved plans are subject to the following requirements:

(A) IMMEDIATE ACTIONS: Immediate actions shall be taken by the person conducting the soil disturbing activity, or representative of the owner or operator, to manage RACS in accordance with Section 5.5 and Section 1.2 definitions of these Regulations. These actions shall include, at a minimum, the following:

(1) Stopping all soil disturbing activities related to RACS, until the 24-hour notification requirements in Section 5.5.4(B), and the interim action requirements in Section 5.5.4(C), are met. In the event of an emergency in which a soil disturbing activity must continue or commence at once, notification shall be made as soon as possible, but within 24 hours of identifying or assuming the presence of RACS within the soil disturbing area. During the initial response to the immediate emergency, the standard requirements of Section 5.5.7 shall be implemented to the extent possible. Within 48 hours, any disturbed and/or exposed RACS shall be managed in accordance with the standard requirements of Section 5.5.7, an approved PSRMP, or an approved SOP.

(2) Establishing and taking measures in order to prevent access to the RWA by unauthorized persons. Instances of unauthorized access not under the control of the owner/operator shall be evaluated to determine if additional access controls are warranted. The unauthorized access, and the response actions taken, shall be documented and provided to the Department within 48 hours of the incident.

(3) Conducting interim surface soil stabilization to reduce emissions including:

a. Polyethylene sheeting or geofabric with daily inspection, and inspection after storm events, and repair/replacement of sheeting as necessary to maintain stabilization; or

b. Chemical stabilizer demonstrated to be effective in the stabilization of RACS (e.g. magnesium chloride) with weekly inspection, and inspection after storm events, and re-application of chemical stabilizer as necessary to maintain stabilization; or

c. Minimum of three (3) inches of soil appropriate for unrestricted use; or

d. Other means of stabilization as approved by the Department.

e. Stabilization is not required if RACS is kept adequately wet. Verification of adequately wet conditions shall be conducted at least every two (2) hours, or RACS shall be stabilized by one of the methods described in (3)(a-d) above.

(B) 24-HOUR NOTIFICATION REQUIREMENTS: The owner/operator, or owner/operator representative shall submit a completed Notification of RACS Disturbance form to the Department's Hazardous Materials and Waste Management Division within 24 hours of identifying RACS during a soil disturbing activity.

(C) INTERIM ACTIONS: In accordance with Section 5.5.5, the owner/operator, or owner/operator representative, shall submit to the Department's Hazardous Materials and Waste Management Division, for review and approval, within five (5) workings days of the discovery, a PSRMP, SOPs, or indicate the standard requirements of Section 5.5.7 will be followed on the Notification of RACS Disturbance form submitted to the Department.

(D) Once the requirements of Sections 5.5.4(A), (B), and (C) are completed, any soil disturbing activities shall proceed in accordance with applicable requirements.

5.5.5 RESPONSE TO PLANNED RACS MANAGEMENT

Planned soil disturbing activities involving RACS shall be conducted in accordance with the standard requirements identified in Section 5.5.7, and with one of the following management strategies and the associated notification requirement:

(A) PROJECT SPECIFIC RACS MANAGEMENT PLAN (PSRMP);

(1) The owner/operator, or owner/operator representative, shall submit a completed Notification of RACS Disturbance form to the Department's Hazardous Materials and Waste Management Division at least ten (10) working days prior to any planned soil disturbing activity. This notification shall include submittal of a PSRMP conforming to the requirements of Section 5.5.5(A)(2). The Department will acknowledge receipt of a notification of the intent to utilize a PSRMP by mail or electronic correspondence. The PSRMP shall be approved by the Department prior to implementation.

(2) If the owner/operator choose(s) management in accordance with this Section 5.5.5(A), a PSRMP shall be developed and submitted to the Department's Hazardous Materials and Waste Management Division for review and approval prior to implementation. The Department will use its best efforts to review and respond to the plan within ten (10) working days of receipt. The PSRMP shall include the following:

(a) Property representative's name and phone number; and

(b) Property location; and

(c) General site description, including a description of RACS and the types of known or assumed ACM(s), and the location(s) of these material on the site; and

(d) Description of planned soil disturbing activities; and

(e) Description of site management, emission control activities, and work practices to control the release of, and/or exposure to, asbestos outside of the RWA including:

(i) Measures to assure that the soil is adequately wet (as that term is defined in Section 1.2 of these regulations), stabilized, or covered during soil disturbing activities; and

(ii) Wind speed monitoring during RACS disturbance, including frequency of monitoring, and shutdown and start up criteria; and

(iii) An air monitoring plan designed to detect asbestos at the perimeter of the RWA as an indication that the measures to control the release of asbestos outside of the RWA are effective. The plan may include a tiered air monitoring approach providing less frequent air monitoring given demonstrated effectiveness of work practices; and

(iv) Work practices specific to mechanical and/or hand disturbance of RACS including measures in order to prevent the release of visible emissions outside of the RWA, or demonstrate that asbestos is not leaving the RWA above risk-based air thresholds; and

(v) Work practices for the loading and placement of RACS including spill prevention procedures.

(vi) The owner /operator has the option to erect a structure maintained at a negative pressure differential sufficient to contain all dust, with off-gas from the evacuation system treated with HEPA filtration. If this option is chosen, the requirement to submit an air monitoring plan, under Section 5.5.5(A)(2)(e)(iii) is not applicable.

and

(f) Description and location of any planned sampling. All sampling shall be performed in accordance with the procedures set forth in Appendix 5A. All investigation derived waste shall be managed in accordance with Section 5.5.8.

(3) A copy of the PSRMP shall be maintained on the site during RACS disturbing activities.

(4) At the option of the owner/operator and upon notice to the Department, a Soil Characterization and Management Plan approved prior to the effective date of this amended Section 5.5, and that complies with the substantive requirements of the regulation prior to amendment, shall remain in effect until the completion of the subject project or until it is replaced by a PSRMP.

(B) STANDARD OPERATING PROCEDURES (SOPs)

(1) The owner/operator, or owner/operator representative, shall notify the Department's Hazardous Materials and Waste Management Division, by submitting a completed Notification of RACS Disturbance form, prior to implementation of the previously approved SOPs at a RWA. SOPs that conform to Section 5.5.5(B)(2) shall be approved by the Department prior to implementation. The Department will acknowledge receipt of a notification of the intent to utilize an SOP by mail or electronic correspondence.

(2) If the owner/operator chooses management in accordance with this Section 5.5.5(B), the owner/operator shall develop and submit to the Department's Hazardous Materials and Waste Management Division, for review and approval, thirty (30) calendar days in advance of any RACS disturbing activities, SOPs that conform with Section 5.5.5(A)(2)(a) – (f) that will be implemented, upon notice to the Department per Section 5.5.5(B)(1), at future RWA(s). A copy of the SOPs shall be maintained on site during RACS disturbing activities for the duration of the Project.

(3) At the option of the owner/operator and upon notice to the Department, a SOP approved prior to the effective date of this amended Section 5.5, and that complies with the substantive requirements of the regulation prior to amendment, shall remain in effect and may be used to comply with the amended regulation.

(C) STANDARD REQUIREMENTS OF SECTION 5.5.7

The owner/operator, or owner/operator representative, shall submit to the Department's Hazardous Materials and Waste Management Division a completed Notification of RACS Disturbance form indicating the intent to utilize the standard requirements of Section 5.5.7, as a default RACS management plan, prior to any planned soil disturbing activity. This notification shall include property location, general site description, and contact information for the owner/operator responsible for the RWA activities. The Department will acknowledge receipt of a notification of the intent to utilize the standard requirements of Section 5.5.7 by mail or electronic correspondence.

(D) RISK BASED APPROACH

The owner/operator may choose to submit, for Department review and approval, a site-specific risk assessment work plan to evaluate the risks of the proposed work practices associated with planned disturbance activities in an area or areas of RACS.

5.5.6 REMEDIATION OF ASBESTOS IN SOIL

(A) Remediation is not required of properties at which ACM, RACS, or asbestos waste is located. If the owner of a property chooses to remediate (rather than just manage) all or a portion of the property containing ACM, RACS, or asbestos waste a Remediation Plan shall be submitted to the Department's Hazardous Materials and Waste Management Division for review and approval prior to commencement of activities associated with the remediation. The Remediation Plan shall comply with this Section 5.5, and include the following:

(1) The standard requirements in accordance with Section 5.5.7, and the plan requirements outlined in Section 5.5.5(A). Alternatively, a risk based approach pursuant to Section 5.5.5(D) may be proposed, for Department review and approval, for disturbance of RACS; and

(2) A detailed description of planned remediation activities, including proposed depth and areal extent of remediation, and work practices to be implemented; and

(3) The proposed use of the property and area of remediation; and

(4) Any planned engineering or institutional controls in order to prevent exposure to any asbestos left in place, or minimize exposure below a risk-based concentration approved by the Department, within the area covered by the Remediation Plan, and

(5) A schedule for submittal of a Remediation Completion Report that incorporates the information from Section 5.5.7(L) and any additional information necessary to demonstrate that the remediation goals have been achieved.

(B) The Department shall use its best efforts to provide written notification that a Remediation Plan has been approved or disapproved within no more than forty-five (45) calendar days after a request by a property owner, unless the property owner and the Department agree to an extension of the review to a date certain.

(C) If a remedial decision is made by the Department, the area subject to the remedial decision may be subject to C.R.S. Section 25-15-320(2), and an environmental covenant may be required for waste left in place.

5.5.7 STANDARD REQUIREMENTS FOR THE DISTURBANCE OF RACS

The requirements of this section, if followed in their entirety, constitute a default RACS management plan, eliminating the need to submit a PSRMP or SOP.

(A) ESTABLISHMENT AND CONTROL OF A REGULATED WORK AREA (RWA)

(1) Requirements for establishment and control of a RWA applicable to all projects subject to this Regulation:

(a) Establish a RWA which is identifiable to all persons. Haul roads between RWAs, where RACS is not present, are considered to be outside the RWA(s); however, equipment decontamination [Section 5.5.7(I)] and spill response procedures [Section 5.5.7(J)] shall be followed; and

(b) Stop all soil disturbing activities in the RWA if ancillary workers or members of the public are present within the RWA. Truck drivers who do not complete the training under Sections 5.5.3(A) and (B) are ancillary workers. Soil disturbing activities must cease if the truck driver is present within the RWA unless the driver remains in the cab of the truck, the truck's windows remain closed, and the air handling system remains off while the truck is inside the RWA; and

(c) Post labeling and signage to demarcate RWA(s). The RWA shall be demarcated by visible means that fully defines the extent of the RWA. Labeling and signage shall indicate the presence of asbestos, and that the area is off limits to unauthorized personnel.

(2) **Additional Requirement for Projects Disturbing RACS Containing Friable ACM.** Establish a secured work site (e.g., fencing with locks/zip-ties/chains). Personnel, or staff assigned to this duty, may be used to secure the RWA in lieu of fencing. If the RWA is located within a larger secure facility, fencing of the RWA is not necessary as long as the RWA is secured.

(B) PERSONAL PROTECTIVE EQUIPMENT (PPE) FOR THE PURPOSES OF PREVENTING CROSS-CONTAMINATION

(1) Requirements applicable to all RWAs subject to this Regulation:

(a) Use of disposable booties or impermeable footwear that will be decontaminated per Section 5.5.7(I); and

(b) Use of disposable gloves or impermeable gloves that will be decontaminated per Section 5.5.7(I); and

(c) Replace or decontaminate (per Section 5.5.7(I)) all PPE in all instances where the integrity of the PPE is compromised, and when workers exit the RWA; and

(d) Decontaminate (per Section 5.5.7(I)) or dispose of all used PPE as asbestos contaminated waste.

(2) **Additional Requirement Applicable to Projects at RWAs Containing Friable ACM.** Use of disposable impermeable suits or equivalent coveralls, remove suits or coveralls upon exiting the RWA, and dispose of used suits or coveralls as asbestos contaminated waste.

(C) WETTING

(1) Wetting requirements applicable to all RACS disturbance:

(a) Adequately wet all RACS and soils, or other materials containing RACS, on the surface and in the sub-surface prior to and during RACS disturbance, except as provided in Section 5.5.7(F)(1)(b)(ii). Pre-wetting is not necessary if soils are already adequately wet. Apply water or amended water (as required in Section 5.5.7(C)(2)) at low pressure in order to minimize dust generation and splattering to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk-based thresholds.

(b) Mist RACS and soils, or other materials, containing RACS during placement as needed to maintain the material in an adequately wet condition using equipment mounted spray bars, or additional hose operator(s).

(c) Except as provided in (d) below, incidental occurrences of visible emissions leaving the RWA shall be managed by evaluating site conditions and engineering controls for each occurrence of visible emissions, and immediately implementing any identified engineering control revisions necessary in order to prevent future occurrences of visible emissions. All instances of visible emissions leaving the RWA shall be documented as required in Section 5.5.7(L) of this regulation.

(d) When utilizing the risk-based air monitoring threshold approach to evaluate the effectiveness of adequately wetting, visible emissions are allowed to leave the RWA as long as the risk-based air threshold is not exceeded.

(2) **Additional requirement for RACS that contains friable ACM.** Use amended water containing a wetting agent, such as a 50:50 mixture of polyoxyethylene ester and polyoxyethylene ether, or the equivalent, in a 0.16 percent solution (1 ounce to 5 gallons) of water, or as per manufacturer recommendations for the wetting of asbestos. This requirement may be waived by the Department for emergency situations where the work must occur immediately and wetting agents are not available.

(D) WIND SPEED MONITORING

(1) Requirements applicable to all projects involving mechanical disturbance of RACS, and hand disturbance of RACS containing friable ACM:

(a) Take wind measurements from within the RWA using a hand held anemometer. Alternatively, or in conjunction with hand held measurements, an onsite weather station may be used within a quarter mile of the RWA as long as the conditions measured by the weather station are representative of conditions in the RWA.

i. Collect wind speed measurements at a minimum of thirty (30) minute intervals and during wind gust(s). Average wind speed measurements shall be obtained manually by taking ten readings at one minute intervals and averaging the ten readings, or through the use of instrumentation that provides a ten minute average wind speed reading.

ii. If wind break barriers are used, wind speed measurements may be taken from within barriers; however, wind speed measurements shall also be taken outside the wind break barriers if any RACS disturbing activities, such as loading, are taking place outside or above the barriers. Wind speed shut-down criteria shall be based on measurements taken that are representative of the area of active RACS disturbance.

(b) Immediate stoppage of all RACS disturbance shall occur based on results of wind speed monitoring conducted in accordance with subsection (a) and exceedance of the following criteria:

i. Wind gust(s) in excess of 20 mph, or

ii. Sustained winds in excess of 12 mph, averaged over ten (10) minutes, or

iii. Winds are interfering with the ability of engineering controls to work as intended, or

iv. Winds are creating visible emissions that leave the RWA.

(c) RACS disturbance may resume when all of the following criteria are met:

i. No gust(s) in excess of 20 mph occur for twenty (20) minutes, and

ii. No sustained winds in excess of 12 mph occur for twenty (20) minutes, based on a ten (10) minute average wind speed measurement, and

iii. Winds are not interfering with the ability of engineering controls to function as intended, and

iv. Winds are not creating visible emissions that leave the RWA.

(E) AIR MONITORING

(1) If using the risk-based air threshold approach to monitor the effectiveness of adequately wetting:

(a) Air monitoring to determine asbestos content of visible emissions allowed to leave the RWA, for comparison to the risk-based air thresholds shall not be utilized for projects that are less than ten (10) days in duration.

(b) Air monitoring to determine asbestos content of visible emissions allowed to leave the RWA, for comparison to the risk-based air thresholds, shall begin on the first day of the project.

(c) A minimum of four (4) air samples per day shall be collected for TEM analysis.

(d) Sample collection, analysis, and data evaluation shall be conducted in accordance with Appendix 5A.

(2) If preventing visible emissions leaving the RWA as an indication of the effectiveness of work practices, not for risk evaluation, air monitoring is required during mechanical disturbance of RACS in RWAs with an adjacent receptor zone:

(a) No air monitoring is required for RACS disturbance that will not exceed a duration of two (2) days. However, the requirements for adequate wetting (Section 5.5.7(C)) and no visible emissions leaving the RWA (Section 5.5.7(F)) shall be adhered to on all RACS disturbance projects. Dividing projects into multiple two (2) day or shorter components shall not be used as a mechanism to avoid air monitoring requirements.

(b) Area monitoring shall consist of a minimum of four (4) samples collected on the perimeter of the RWA at appropriate intervals to provide representative information regarding potential releases of asbestos fibers to the adjacent receptor zone(s). Additional samples shall be collected for large perimeter RWAs (greater than one (1) acre). RWAs greater than one (1) acre shall require additional perimeter monitoring points be added at a rate of one (1) sample for every 200 linear feet (or approximately each additional ¼ acre). If representative information about potential releases to the adjacent receptor zone(s) can be collected using less than the minimum number of samples, the remaining sample locations shall be at the discretion of the AMS.

(c) Phase Contrast Microscopy (PCM) analysis is required on all samples collected (unless all samples will be analyzed by Transmission Electron Microscope (TEM) by default). The laboratory shall be requested to provide verbal results to the AMS or the QPM by the start of the next working day, or as soon as possible after the start of the next working day, with written results within 24 hours of the receipt of verbal results. A consultation with the Department is required If this timeframe cannot be met by the laboratory.

(d) Upon receipt of a laboratory report indicating a “cannot be read (CBR)”, or a “not analyzed (NA) or rejected” due to loose debris or uneven loading, analysis result:

i. The AMS shall evaluate the lab report and any field documentation to determine a possible cause for the CBR or “not analyzed (NA) or rejected” result; and

ii. If the CBR or “not analyzed (NA) or rejected” cannot be correlated to a specific field event that compromised the sample (e.g. the sample was blown over, the filter of the sample was sprayed with water) then the sample shall be prepared for indirect TEM presence/absence analysis to determine potential asbestos content in accordance with Appendix 5A; and

iii. If the CBR or “not analyzed (NA) or rejected”, analysis result can be correlated to a compromised sample, then preparation for indirect TEM presence/absence analysis is not required as long as adequate air monitoring data is available to evaluate the effectiveness of engineering controls. However, overloading of a sample with particulate matter does not constitute a compromised sample, and will require indirect preparation for TEM presence/absence analysis; and

iv. Field personnel shall evaluate why the sample was compromised and modify field procedures as necessary to avoid future samples from being compromised; and

v. The Department project manager shall be notified by phone or email of instances of CBR or “not analyzed (NA) or rejected” analysis results within 24 hours of receipt of verbal results.

(e) TEM presence/absence analysis is required (analysis providing fiber counts/concentrations is always optional) as described in paragraphs (i) through (iv) below. The laboratory shall be requested to provide verbal results by the start of the next working day, or as soon as possible after the start of the next working day, with written results within 24 hours of the receipt of verbal results.

i. All samples, required by this Section 5.5, with PCM results having fiber concentrations greater than 0.01f/cc shall be submitted for TEM analysis.

ii. During the first five (5) days of RACS disturbance – A minimum of 25% of the samples collected from each RWA, inclusive of the downwind floating samples as described in 5.5.7(E)(3), shall be submitted for TEM analysis. The sample(s) selected for TEM analysis shall have the highest PCM result(s) based on fiber concentration. If all PCM results are Below Detectable Limit (BDL) for fiber concentration, then the sample(s) selected for TEM analysis shall be determined by highest fiber count. If all samples have no fiber counts (i.e. zero (0) fibers counted, not a "below detection limit" fiber concentration) then no TEM analysis is required.

iii. After five (5) days of RACS disturbance with no asbestos detections by TEM analysis, the frequency of analysis by TEM, on the highest 25% of PCM results(s), may be reduced to once every five (5) days of RACS disturbance, or portions thereof, using the same selection criteria as in paragraphs (i) and (ii) above. The samples submitted for TEM analysis during the period of reduced frequency TEM analysis shall be either the first occurrence of: 1) high winds exceeding wind shut down criteria, or 2) visible emissions. In the absence of high wind events or visible emissions the selected day for TEM analysis may be random, as determined by the AMS.

iv. If there are any asbestos detections during the random once every five (5) days of RACS disturbance analysis by TEM, then TEM analysis shall be conducted for the next three (3) consecutive days of RACS disturbance, or portions thereof, using the same procedures as in paragraph (i) and (ii) above. If there are no additional asbestos detections during the next three (3) consecutive days of RACS disturbance with samples submitted for TEM analysis, then the frequency of TEM analysis may return to random once every five (5) days of RACS disturbance.

v. If site conditions, friability of the materials being managed, or work practices change, then the initial five (5) days of TEM analysis shall restart using the provisions set forth in this Section 5.5.7(E)(1)(e).

(f) Detection or presence responses - For each detection of asbestos by TEM analysis, the following shall be conducted:

i. Notify the Department project manager by phone or email, on the same calendar day as receipt of verbal or written results (whichever comes first) from the laboratory.

ii. Evaluate site conditions and engineering controls for each detection, and immediately implement any identified engineering control revisions necessary with the goal of preventing future detections of asbestos fibers.

iii. Submit an Emission Control Plan (ECP) to the Department project manager for each detection (days with multiple detections can be addressed by a single ECP). The ECP shall be submitted within 48 hours from the asbestos detection event and shall contain:

1. The date of the detection.

2. A written description of sample details (sample ID, number of structures detected, type of asbestos detected, PCM analytical result) and any potential cause of the release. Include a description of site activity (engineering controls being employed, equipment being used, size of excavation/soil disturbing activity, types of materials identified, etc.) and CABI observations at the work area before and during the presumed time of release.

3. A diagram or write up of all air sample positions clearly indicating which sample received the TEM detection. Indicate, through illustration or description, prevailing wind direction and average wind speeds for the detection event; include any wind speed shutdowns for the date of detection. If applicable, indicate downwind floater air sample relocation times and new positions through illustration or description.

4. Laboratory reports confirming the type and amount of fibers detected by TEM analysis.

5. Other pertinent information that will additionally describe the release and/or will assist in the prevention of future releases from the RWA.

6. A written description of actions taken and any other proposed actions with the goal of preventing future releases from the RWA.

7. If the owner/operator believes fibers are coming from offsite and are not under the control of the owner/operator, then, in addition to the information provided in the ECP, documentation shall be provided demonstrating additional sources of asbestos fibers.

(g) If there are three (3) TEM detections on consecutive analysis events or ten (10) detections for a single project, consultation with the Department is required to determine if the standard requirements of Section 5.5.7 are being implemented appropriately and whether:

i. Changes in the standard requirements of Section 5.5.7 are likely to prevent future releases; or

ii. Changes in the standard requirements of Section 5.5.7 are not likely to prevent future releases and a PSRMP is necessary per Section 5.5.5(A)(2); or

iii. If the owner/operator believes fibers are coming from offsite and are not under the control of the owner/operator, then, in addition to the information provided in the ECP, documentation shall be provided demonstrating additional sources of asbestos fibers. Air samples shall be collected and analyzed following the analytical procedures of Appendix 5A for the type of project being conducted; and

iv. Additional consultation with the Department is required to determine whether additional engineering controls for structures within the adjacent receptor zone are appropriate.

(3) **Additional requirement for projects disturbing RACS containing friable ACM.** Collect two (2) additional downwind floating samples for mechanical disturbance of RACS containing friable ACM. The samplers shall be moved based on prevailing wind direction and adjacent receptors. For example, if adjacent receptors are present on only one side of the RWA, one sample location should be maintained between the RWA and the adjacent receptor.

(F) WORK PRACTICES TO BE FOLLOWED DURING RACS DISTURBANCE

(1) Work practice requirements applicable to all management of RACS:

(a) Prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds by:

i. Excavating in lifts not to exceed the extent of wetting; or

ii. Conducting continuous wetting while mixing dry materials at the point of RACS disturbance to ensure all materials are adequately wet prior to removal from the excavation.

iii. Instances of visible emissions leaving the RWA shall be documented and addressed by changing or increasing controls (e.g. more effective wetting, reduced speed of excavation).

(b) RACS on exposed excavation faces that will be disturbed and/or managed during the project shall either be kept adequately wet (in accordance with Section 5.5.7(C)), or be stabilized using any of the following in order to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds:

i. Polyethylene sheeting or geofabric with daily inspection, and inspection no later than twelve (12) hours following a storm event, and repair/replace sheeting as necessary to maintain stabilization; or

ii. Chemical stabilizer demonstrated to be effective in the stabilization of RACS (e.g. magnesium chloride) with weekly inspection, and inspection no later than one (1) calendar day following a storm event, and re-application of chemical stabilizer as necessary to maintain stabilization; or

iii. Minimum of three (3) inches of soil appropriate for unrestricted use.

(c) Stormwater shall be managed in accordance with the Water Quality Control Commission's stormwater regulations (5 CCR 1002-61), which include specific stormwater permitting and management requirements for construction sites. The Water Quality Control Division should be contacted to determine the specific requirements for each project. Stormwater shall be managed in a manner that minimizes run on and runoff from RACS. Stormwater that comes into contact with RACS shall be treated as asbestos contaminated water in accordance with Section 5.5.7(J)(4), and other material(s) impacted by asbestos contaminated stormwater shall be managed as RACS in accordance with Section 5.5.7(J)(3).

(2) Work Practice requirements applicable to the management of RACS using hand methods on surfaces or in the subsurface:

a. Wet and remove the RACS and six (6) inches, in all directions, of surrounding soil or other material from the last occurrence of visible ACM; and

b A CABI shall confirm that the visible extent of ACM and surrounding soil, or other material, has been removed (or extent of excavation has been reached). If RACS remains, it shall be managed for stabilization or future removal. If there is no documented evidence of non-visible RACS at the site, then a visual inspection and clearance shall be sufficient to determine the removal of RACS. If there is documented evidence of non-visible RACS at the site, sampling is required to confirm the removal of RACS. After the removal of the additional six (6) inches, and in the absence of any debris, a QPM may make the determination that RACS has been removed; and

c. If RACS remains in the RWA, it shall be managed for stabilization, per Section 5.5.7(K), or future removal.

d. In lieu of stabilization or full removal, sampling may be performed per Section 2.2 of Appendix 5A to demonstrate that the material is not RACS.

e. Dispose of RACS in accordance with Section 5.5.8.

(3) Work practice requirements applicable to management of RACS using mechanical methods:

a. For surface occurrence of RACS - Wet and remove all RACS and a minimum of six (6) inches of soil, and/or other matrix material, in all directions from the last occurrence of visible ACM, with CABI confirmation that the visible extent of RACS has been removed.

b. For subsurface occurrence of RACS - Wet and remove all RACS and a minimum of three (3) linear feet of soil or other matrix material, in the direction(s) of planned excavation, with CABI confirmation that the visible extent of RACS has been removed. If there is no documented evidence of non-visible RACS at the site, then a visual inspection and clearance shall be sufficient to determine the removal of RACS. If there is documented evidence of non-visible RACS at the site, sampling is required to confirm the removal of RACS. After the removal of the additional three (3) linear feet, and in the absence of any debris, a QPM may make the determination that RACS has been removed.

c. If RACS remains in the RWA, it shall be managed for stabilization, per 5.5.7(K), or future removal.

d. In lieu of stabilization or full removal, sampling may be performed per Appendix 5A to demonstrate that the material is not RACS.

e. Package and dispose of RACS in accordance with Section 5.5.8.

(4) Soil or other matrix material that remains after removal of RACS in accordance with Section 5.5.7(F), Section 5.5.7(H)(1)(c)(i), or an approved plan, is not considered RACS, is not subject to Section 5.5, and may be appropriate for unrestricted use, onsite or offsite, as long as it does not contain any other regulated material.

(G) LOADING AND PLACEMENT OF RACS

(1) Requirements for the loading of RACS:

(a) Protect clean surfaces (including loading surface and truck or disposal container surfaces that may come in contact with RACS) by covering or decontamination of surfaces prior to transport or removal of the truck or disposal container from the RWA and/or loading zone.

(b) Spill prevention shall consist of:

i. Minimization of spillage by not overfilling the excavator or loader bucket and returning the bucket to a closed position prior to moving from the loading point; and

ii. Replacement of protective coverings when worn or damaged in order to prevent breaches; and

iii. Control of runoff in order to prevent cross contamination from water containing asbestos; and

iv. Mitigation of spills of RACS in accordance with Section 5.5.7(J).

(c) During the process of loading the container, the equipment operator shall lower the bucket as close as possible to the interior of the container before dumping, and dump the load slowly to allow adequate misting and in order to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds.

(2) Requirements for the transportation of RACS:

(a) Onsite transportation of RACS between the RWA and an onsite area of staging, stockpiling, storage, disposal or reuse shall comply with the following:

i. The packaging requirements for RACS set forth in Section 5.5.8(A) of these regulations are not applicable; however, the decontamination requirements of Section 5.5.7(I) shall be followed at the end of disposal operations, or before disposal equipment is removed from the site; and

ii. Driving speeds shall not exceed 12 miles per hour or RACS shall be covered during transport; and

iii. For transportation between the RWA and a non-contiguous onsite staging, stockpiling, storage, disposal, or reuse area:

1. Transportation equipment tires shall not contact RACS; or

2. RACS that is driven upon is a RWA and shall be kept adequately wet in order to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds, and all equipment surfaces that have come into contact with RACS shall be decontaminated per Section 5.5.7(I) before leaving the RWA; or

3. The haul road shall be managed as RACS for stabilization, per Section 5.5.7(F)(1), and future removal of a minimum of three (3) inches of soil, or other matrix material. If the road is constructed of a durable surface such as concrete or asphalt, the surface shall be decontaminated in accordance with Section 5.5.7(I)(1)(b) using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(H) ONSITE STAGING, STOCKPILING, AND STORAGE OF RACS

(1) Staging, as defined in Section 1.2 of these regulations, is the accumulation and temporary storage of RACS in the RWA for 12 hours or less. The following requirements shall apply to the staging of RACS:

(a) Staged RACS shall be kept adequately wet.

(b) Staging of RACS shall be on 6 mil, or greater, polyethylene sheeting or shall include removal, and management as RACS, of a minimum of three (3) inches of material, from below the staging pile/area prior to demobilization; with visual or measured confirmation of removal. If polyethylene sheeting is placed on top of a durable surface such as concrete or asphalt, the surface must be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(c) Material determined to be clean during generation shall be inspected during placement for staging. Staging of clean material with incidental discovery of RACS shall be managed as follows:

i. If a CABI was continually inspecting the material during generation, remove the piece of ACM and one (1) foot of material in all directions, with CABI confirmation that the visible extent of RACS has been removed. If more than one (1) piece of ACM, or a pocket of ACM is discovered, remove the pocket of ACM plus one (1) foot of material in all directions, with CABI confirmation that the visible extent of RACS has been removed. Material that remains after removal of RACS, and CABI visible confirmation, is not considered RACS, is not subject to Section 5.5, and may be appropriate for unrestricted reuse, onsite or offsite, as long as it does not contain any other regulated material.

ii. If a CABI was not continually inspecting the material during generation, an intrusive inspection of the pile shall be conducted to determine the extent of RACS contamination, followed by the removal of the visible extent of contamination plus removal of one (1) foot of material in all directions. Alternatively, the entire pile, plus three (3) inches of material below the pile, shall be removed and managed as RACS. If the pile was placed on top of a durable surface such as concrete or asphalt, the surface shall be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(2) Stockpiling, as defined in Section 1.2 of these regulations, is the accumulation and storage of RACS that will exist for more than twelve (12) hours, up to and including ten (10) calendar days. The following requirements shall apply to stockpiled RACS:

(a) Stockpiled RACS shall be placed on a minimum of 6 mil polyethylene sheeting or shall include removal, and management as RACS, of a minimum of three (3) inches of soil, or other matrix material, from under the entire area of RACS stockpiling after stockpile removal. If the stockpile was placed on top of a durable surface such as concrete or asphalt, the surface must be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(b) RACS shall be adequately wet during disturbance.

(c) Stockpiled RACS shall be controlled per Section 5.5.7(A).

(d) Stockpiled RACS shall be stabilized by:

i. Polyethylene sheeting or geotechnical fabric with daily inspection, and inspection no later than twelve (12) hours following storm events, and repair/replace sheeting as necessary to maintain stabilization; or

ii. Chemical stabilizer demonstrated to be effective in the stabilization of RACS (e.g. magnesium chloride) with weekly inspection, and inspection no later than one (1) calendar day after storm events, and re-application of chemical stabilizer as necessary to maintain stabilization; or

iii. Minimum of three (3) inches of soil appropriate for unrestricted use.

(e) For stockpile areas that are non-contiguous with the RWA, transportation of RACS shall be conducted in accordance with the following:

i. Transportation equipment tires shall not contact RACS; or

ii. The tires shall be decontaminated per Section 5.5.7(I) before leaving the RWA; or

iii. The haul road shall be managed as RACS for stabilization, per Section 5.5.7(H)(2)(d), and future removal of a minimum of three (3) inches of soil, or other matrix material. If the road is constructed of a durable surface such as concrete or asphalt, the surface shall be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(f) For a stockpile that was previously thought to be free of RACS, but where RACS is subsequently identified, the procedure outlined in Section 5.5.7 (H)(1)(c) shall be followed.

(3) Storage of RACS exceeding ten calendar days shall require the submission of a RACS Storage Plan. Storage of RACS shall not commence prior to approval of the RACS Storage Plan by the Department's Hazardous Materials and Waste Management Division. The RACS Storage Plan shall include:

(a) Approval of storage with signature from the property owner; and

(b) Volume of RACS intended for storage; and

(c) Liner design or provisions for removal of a minimum of three (3) inches of underlying material; and

(d) Storm water design including protections for run-on and run-off; and

(e) Cover design or use of an equivalent durable stabilizer; and

(f) Access control and signage; and

(g) Storage timeframe (shall not exceed six (6) months unless an extended storage timeframe is approved by the Department and complies with local governing authority requirements); and

(h) Inspection and maintenance schedule; and

(i) Closure and removal requirements; and

(j) Documentation and reporting; and

(k) Certification of any designed elements by a Colorado registered Professional Engineer.

(4) Temporary sub-surface storage of RACS in areas of future planned RACS removal shall not exceed six (6) months and shall comply with the following:

(a) RACS may only be placed within the Area of Contamination (AOC) that it was originally removed from.

(b) Placement of RACS utilizing standard RACS management requirements in accordance with the standard requirements of Section 5.5.7, an approved PSRMP, or an approved SOP.

(c) Cover RACS in accordance with the requirements of Section 5.5.7(K).

(d) RACS not removed within six (6) months (unless an extended storage timeframe is approved by the Department), shall be considered disposal in accordance with Section 5.5.8(A), or reuse within an AOC and will require an environmental covenant in accordance with Section 5.5.8(B)(1).

(5) Offsite staging, stockpiling, and storage of RACS are allowed as long as they comply with the disposition requirements of Section 5.5.8.

(I) DECONTAMINATION

(1) Requirements applicable to all projects subject to Section 5.5:

(a) Personnel Decontamination:

i. Remove booties and/or gloves before exiting RWA and dispose as asbestos contaminated waste; or

ii. If not using disposable PPE, decontaminate boots in a boot wash station, remove gloves after exiting the boot wash station, and dispose of gloves as asbestos contaminated waste. Rinsate from the boot wash station shall be collected, filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility, or re-applied to RACS that will be managed under these regulations.

(b) Decontamination of Equipment or Surfaces that have come into Contact with RACS

i. For equipment that comes into contact with RACS:

1. Wet decontamination on a decontamination pad (minimum 10 mil poly or other durable non-permeable barrier) followed by CABI inspection and verification of equipment decontamination before it leaves the decontamination area. All decontamination liquids and solids shall be contained, and run-on and run-off shall be prevented. Rinsate/runoff shall be collected, filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations. For breaches in the decontamination pad where RACS or water contaminated with asbestos may have impacted the material below the decontamination pad, implement the provisions of Section 5.5.7(J);

and/or

2. Decontamination using HEPA vacuums followed by CABI inspection and verification of equipment decontamination before it leaves the decontamination area.

(c) Protection of Clean Equipment and Surfaces:

i. Keep all equipment off of RACS; or

ii. Protect clean surfaces from coming in contact with RACS by covering equipment surfaces or RACS surfaces with polyethylene sheeting or equivalent durable impermeable covering. For onsite movement of excavation equipment between RWAs, where only the excavator bucket has come in contact with RACS, the bucket shall be wrapped in polyethylene sheeting (minimum 6 mil) prior to movement. Protective coverings shall be cleaned, repaired, or replaced as necessary. If protective coverings are breached and RACS or asbestos contaminated water comes into contact with underlying material, the provisions of Section 5.5.7(J) shall be followed. Coverings that have come in contact with RACS shall be disposed as asbestos contaminated waste.

(2) Additional Requirements for Projects Disturbing RACS Containing Friable ACM:

(a) Remove disposable impermeable suits or equivalent coveralls before exiting RWA and dispose as asbestos contaminated waste, or

(b) After removal of suits or coveralls, conduct full wet decontamination prior to exiting RWA with collection of rinsate and filtration to less than 5 microns and discharge to a sanitary sewer or other Department-approved disposal facility. Re-application of decontamination shower water is prohibited.

(J) RACS SPILL RESPONSE

(1) Areas where RACS is spilled are RWAs until clean up is completed.

(2) Spilled material shall be cleaned up immediately and not allowed to dry out or accumulate on any surface. The Department's Hazardous Materials and Waste Management Division shall be notified, through the spill reporting hotline, in the event that spills of RACS cannot be cleaned up within 24 hours of spill identification.

(3) Where there are breaches in ground coverings that have the potential to allow RACS or water contaminated with asbestos to impact the material below the covering, a minimum of three (3) inches of soil, or other matrix material, shall be removed from beneath the breached ground coverings. Visual or measured (e.g. survey) confirmation that three (3) inches of soil and/or other matrix material from beneath the breached covering has been removed shall be conducted. If ground coverings are placed on top of a durable surface such as concrete or asphalt, the surface shall be decontaminated using wet methods, followed by CABI inspection that all soil and debris has been removed from the surface.

(4) Rinsate, runoff, or any other water that has come into contact with RACS shall be considered to be asbestos contaminated water and shall be collected and filtrated to less than 5 microns and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(5) Surfaces that are contacted by asbestos contaminated water shall be managed as RACS as per Section 5.5.7(J)(3) or permanently stabilized as per Section 5.5.7(K).

(6) If work practices in an RWA are causing an ongoing spill outside the RWA, the work practices shall cease or be modified to prevent additional releases.

(K) REQUIREMENTS FOR EXPOSED RACS REMAINING IN PLACE

(1) Any remaining RACS that has been exposed by the soil disturbing activity, but is not disturbed, such as an excavation side-wall or bottom shall be covered or stabilized using one of the following:

(a) Cover RACS with geofabric, followed by eighteen (18) inches of fill suitable for unrestricted use, and vegetation; or

(b) Cover RACS with geofabric, followed by six (6) inches of fill suitable for unrestricted use, and concrete or asphalt; or

(c) Cover RACS with geofabric, followed by fill suitable for unrestricted use to grade or six (6) inches, whichever is greater, for vertical excavation faces or trenches; or

(d) Alternate cover designs as approved by the Department.

(L) DOCUMENTATION

(1) The documents listed below shall be maintained during a project and available for Department review upon request. However, this documentation need not be submitted to the Department unless requested. CABI and AMS notes may be collected by one individual if they possess both certifications; however, if no AMS is onsite the CABI shall provide items listed in the AMS notes section (e.g. wind monitoring and shutdown events). CABI and AMS notes may be taken by another individual, but shall be reviewed, approved, and signed by the CABI or AMS for whom the notes are being taken. Other appropriate personnel may also provide the following documentation.

(a) CABI/QPM Notes shall include documentation of:

i. Site description including location; and

ii. Descriptions of site activities; and

iii. Descriptions of equipment in use; and

iv. Descriptions of hand removals (including locations); and

v. Descriptions of types of debris identified; and

vi. Descriptions of suspect material identified; and

vii. Friability of ACM identified (as determined by a CABI); and

viii. Sampling, if conducted (all sampling shall be conducted by a CABI); and

ix. Decontamination visual inspection and clearances; and

x. Excavation visual inspection and clearances; and

xi. Spill response activities; and

xii. Observations of visible emissions and responses; and

xiii. Observations of non-earthen material or the appearance of fill; and

xiv. Observations of other indicators of impact to soils.

(b) AMS notes shall include documentation of:

i. Wind speed measurements; and

ii. Prevailing wind direction(s); and

iii. Wind shut down event(s); and

iv. Initial air sample locations; and

v. Air sample relocation notes; and

vi. Observations of visible emissions and responses; and

vii. Notes pertaining to sample malfunctions (pump faults, overloading, etc.); and

viii. Instances of samples being compromised (samples knocked over, sample filters being sprayed with water, samples physically impacted by equipment, etc.); and

ix. Air sample data (flow rates, time of sampling, volumes, calibration method, etc.).

(c) General documentation shall include:

i. Disposal records; and

ii. Analytical reports including chain of custody forms; and

iii. Evaluations of any samples with a “cannot be read” analysis result and the notifications of these events to the Department; and

iv. Location of known remaining RACS; and

v. Creation and removal dates for, and locations of, staged, stockpiled, and/or stored RACS; and

vi. Stockpile and staging pile inspection logs and documentation of weather events requiring inspection; and

vii. Logs of all site personnel with access to the RWA; and

viii. Certification records for all CABIs and AMSs utilized on the project, and

ix. Records for training conducted in accordance Sections 5.5.3(A) and 5.5.3(B); and

x. Records demonstrating the QPM(s) meet the training and experience requirements set forth in Section 5.5.3(C); and

xi. ECP(s) generated during the project.

5.5.8 PACKAGING AND DISPOSITION OF REGULATED ASBESTOS CONTAMINATED SOIL (RACS)

(A) Disposal of RACS

(1) RACS containing one percent (1%) or greater of friable ACM (as determined in the field by a CABI) by volume per load or container, based on visual estimation through continuous visual inspection or other Department-approved quantifiable means of measurement, shall be packaged in a leak tight container and disposed as friable asbestos waste, in accordance with Section 5.3 of these regulations. Alternatively, a friable ACM determination by a CABI is not required if the disposal load is assumed to be RACS containing 1% or greater of friable ACM and is packaged and disposed of in accordance with Section 5.3 of these regulations. Documentation shall accompany each load of RACS removed from the site stating that soil originating from this site shall not be used as daily cover or reused offsite.

(2) For RACS containing:

(a) Less than one percent (1%) of friable ACM (as determined in the field by a CABI) by volume, per load or container, based on visual estimation through continuous visual inspection, or other Department-approved quantifiable means of measurement, shall be packaged in a leak tight container and disposed in a manner similar to non-friable asbestos waste, as described in Section 5.2 of these regulations. Documentation must accompany each load of RACS removed from the site stating that soil originating from this site shall not be used as daily cover or reused offsite.

(b) Except as provided by Section 5.5.8(A)(3), only visible non-friable ACM (as determined in the field by a CABI) that has not been rendered friable, or RACS that contains no visible ACM, shall be packaged in a leak tight container and disposed of as non-friable asbestos waste in accordance with Section 5.2 of this Part 5. Documentation shall accompany each load of RACS removed from the site stating that soil originating from this site shall not be used as daily cover or reused offsite.

(c) A total volume of debris that is less than 1% of the disposal load, based on visual estimation through continuous visual inspection, and the debris is all assumed to be RACS, then a CABI is not required to make a friable ACM determination.

(3) Owners/operators may utilize alternative packaging for RACS, that contains only non-friable ACM and/or asbestos fibers in soil, that ensures that there are no visible emissions during transport to or from the landfill. The alternative packaging must also be acceptable to the disposal facility accepting the waste. A written notice shall be submitted to the Department at least forty-eight (48) hours prior to the alternative packaging being used. If alternative packaging will be used for material that contains any amount of friable asbestos waste, the alternative packaging shall be in accordance with Section 5.3.5 of the Regulation.

(4) A Design and Operations (D&O) plan shall be submitted to, and approved by, the Department for onsite disposal of RACS outside of the AOC, in accordance with the Colorado Solid Wastes Disposal Sites and Facilities Act (C.R.S. 30-20, Part 1) and these regulations. The packaging requirements set forth above in Section 5.5.8(A)(1-2) are not required for onsite disposal, but the requirements of Section 5.5.5(A)(2)(e) are applicable. An environmental covenant, in accordance with 25-15-320, C.R.S., is required for onsite RACS disposal, and a Certificate of Designation shall be required, in accordance with Section 1.6 of these regulations, unless exempt under Section 1.4.

(B) Onsite reuse of RACS:

(1) A plan for reuse of RACS within the footprint of the AOC shall be submitted to the Department for review and approval prior to implementation and shall comply with Section 5.5.5(A)(2)(e), and the following cover requirements:

(a) Cover RACS with geofabric, followed by eighteen (18) inches of fill suitable for unrestricted use, and vegetation; or

(b) Cover RACS with geofabric, followed by six (6) inches of fill suitable for unrestricted use, and concrete or asphalt; or

(c) Cover RACS with geofabric, followed by fill suitable for unrestricted use to grade or six (6) inches, whichever is greater, for vertical excavation faces or trenches; and

(d) The final grades shall promote surface water run-off and minimize erosion, and shall have slopes no less than 5% (20:1) and no greater than 25% (4:1); or

(e) Alternate cover designs as approved by the Department; and

(f) An environmental covenant, in accordance with 25-15-320, C.R.S., may be required for onsite reuse of RACS.

(2) A plan for beneficial reuse of RACS outside the footprint of the AOC, in accordance with Section 8.6, shall be submitted to the Department for review and approval prior to its implementation. The plan shall include provisions for covering RACS and shall comply with the management requirements of Section 5.5.5(A)(2)(e). Additionally, the cover requirements outlined in Section 5.5.7(K) shall be adhered to. An environmental covenant, in accordance with 25-15-320 C.R.S. may be required for beneficial reuse of RACS.

(C) Demonstration of Non-RACS

(1) Soil or other matrix material initially determined to be RACS may be demonstrated not to be RACS based on visual inspection, removal of all ACM, and sampling and analysis of the remaining material showing no detectable asbestos. Sampling and analysis shall be conducted in accordance with Appendix 5A. If there is no detectable asbestos, this material is no longer subject to Section 5.5 and may be appropriate for unrestricted use, onsite or offsite, as long as it does not contain any other regulated material.

5.5.9 FEES

The Department shall collect fees, from the owner, operator, or person conducting the soil disturbing activity, based on total documented costs, in accordance with Section 1.7

APPENDIX 5A SAMPLE COLLECTION PROTOCOLS AND ANALYTICAL METHODOLOGIES

1.0 Purpose

(A) The purpose of this appendix is to establish standard sample collection requirements and analytical methods and procedures for use in identifying and quantifying asbestos fibers in air, bulk material, and environmental media such as soil or ash.

2.0 Sample Collection Requirements

(A) The following sample collection requirements shall be followed when collecting samples for the purpose of determining the applicability of Section 5.5, and when collecting samples necessary to comply with the requirements of Section 5.5. Remediation plans submitted in accordance with Section 5.5.6 shall include a site specific sampling and analysis plan that incorporates the sample collection methodologies and analytical procedures in this Appendix, or proposes alternatives, and include site specific clearance criteria.

2.1 Bulk Samples

(A) Bulk samples shall be collected, in a manner sufficient to determine whether the material is asbestos-containing material (ACM) or not ACM, from each type of suspect ACM. Bulk samples shall be collected by a State of Colorado certified Asbestos Building Inspector (CABI). In the absence of bulk sample collection, any suspect ACMs must be assumed to be ACMs.

(B) Bulk samples shall be collected by homogenous type based on color, pattern, texture, thickness, associated materials, or by other identifying characteristics. Additionally, the quantity and location of a suspect material shall be used to determine the number of bulk samples required to characterize the asbestos content of each homogeneous suspect material. For the purpose of determining that a homogeneous suspect material does not contain asbestos, a minimum of three (3) bulk samples shall be collected from the homogeneous material unless there is insufficient material to constitute three (3) samples. If one of the collected samples of a homogeneous bulk material is determined to be ACM, then the homogeneous material shall be considered ACM.

2.2 Soil Samples

(A) Samples collected to determine asbestos content in soil shall be ten (10) point aliquot composite samples collected from a maximum area of 1,250 square feet (representing 0-6 inches beyond the exposed surface) or a maximum volume of forty (40) cubic yards. Individual aliquots shall be approximately 1/10 of the entire sample volume. At each aliquot location approximately one (1) tablespoon of soil shall be collected. The total volume of the ten (10) aliquots should equal roughly a half cup. The total collected sample volume should be greater than one quarter (¼) cup, but should not exceed one cup. Aliquot locations shall be randomly selected but shall be representative of the entire sample area or volume (to be inclusive of the interior of soil piles in addition to the surface). However, aliquots shall be co-located with any areas where friable ACM was formerly present. All samples collected to determine asbestos content shall be collected by a CABI.

(B) Sampling for clearance purposes of any exposed horizontal or vertical surface shall have the following additional requirements:

1) The aliquots of a clearance sample shall not be collected until after the RACS, and the required amount of associated material, has been removed.

2) A visual inspection shall be performed and passed (i.e., no visible ACM present) by a CABI prior to the collection of soil samples. Visual inspections shall include the following:

   a) The area to be cleared shall be designated before the visual inspection; and

   b) Former locations of friable materials shall be designated; and

   c) The surface being inspected shall be dry enough to allow identification of suspect ACM; and

   d) The visual inspection shall be conducted in adequate lighting; and

   e) The area to be cleared shall be free of visual impediments (e.g. snow cover, plastic sheeting, standing water, etc.); and

   f) At a minimum, the area to be cleared shall be inspected in at least two (2) perpendicular directions; and

   g) Single or multiple inspectors may be used to perform a visual inspection and clearance. However, a single inspector shall not visually inspect more than a five (5) foot width with each pass [i.e. for a clearance area that is 25' x 50' a single inspector would be required to make at least five (5) passes in one direction (25' length) and at least ten (10) passes in the other direction (50' length)]; and

   h) Detailed close examination of the area being cleared is required. The inspector(s) should use limited invasive inspection techniques, such as periodically sifting the surface being cleared and closely inspecting the disturbed area.

3) If sidewalls with six (6) inches or greater of vertical height are present, independent ten (10) point aliquot composite samples shall be collected from each of the sidewalls and the floor of the excavation.

2.3 Ash Samples

(A) Ash that contains, or is comingled with, suspect ACM and/or construction and demolition debris shall be considered to be RACS unless the ash is sampled, and analysis demonstrates that the ash is not RACS. Representative samples of each type of ash materials shall be sampled and analyzed in the same manner as soil (including area/volumetric limitations of sampling). Ash samples shall be collected by homogenous strata, location, content of other surrounding material, or other observations indicating heterogeneity of the ash present. All samples collected to determine asbestos content shall be collected by a CABI. In the absence of suspect ACM or construction and demolition debris, and in the absence of documented evidence of non-visible asbestos, ash material may be treated as non-RACS.

2.4 Cross Contamination Prevention

(A) All sample collection equipment shall be decontaminated in a manner sufficient to prevent cross contamination between individual samples or individual composite samples. Decontamination is not required between the collection of aliquots comprising a single composite sample.

2.5 Air Samples for Standard RACS Management

(A) Air samples shall be collected by drawing air through 0.8-micron (µm), 25-millimeter (mm), mixed cellulose ester (MCE) filters, using an open-faced cowl extension oriented face down at an angle of 45°. Sample flow rate shall be between 0.5-10 liters per minute depending on the anticipated duration of sampling and the specified detection sensitivity. The air sampling equipment shall be run until the minimum volume required is collected for each sample. However, if the minimum air volume required by the method, and/or to reach the required analytical sensitivity, being utilized cannot be met, the State of Colorado trained and certified Air Monitoring Specialist (AMS) shall request that the laboratory prepare the sample using an indirect preparation method, for TEM presence/absence analysis. Air samples shall be collected at a height that is representative of the disturbance activity taking place. However, air samples shall be located at a height between three (3) feet above the ground surface but not to exceed twenty (20) feet above the ground surface. Air samples shall be collected by an AMS.

2.6 Air Samples for Risk-Based Air Threshold Monitoring

(A) Air samples shall be collected by an AMS. Air monitoring shall be conducted during each partial or full day of soil management activities using fixed and mobile monitors as follows:

1) A minimum of four (4) samples shall be collected for each regulated work area (RWA).

2) For the purpose of determining the number of samples necessary, each RWA shall be divided into four (4) equal quadrants. A minimum of one (1) sample shall be collected for each quadrant with an adjacent receptor zone.

3) If an RWA is greater than one (1) acre, one (1) additional sample for each quadrant with an adjacent receptor zone shall be collected and analyzed for each additional one quarter (¼) acre in RWA surface area.

4) Samples shall be located along the RWA perimeter, between the RWA and each adjacent receptor zone. Samples shall be placed between the RWA and any fixed adjacent receptor(s). In the absence of fixed adjacent receptors, sample placement shall be at the AMS's discretion.

5) The sample volume shall be the minimum necessary to meet analytical sensitivity.

6) Samples shall be collected by drawing air through 0.8-micron (µm), 0.25-millimeter (mm), mixed cellulose ester (MCE) filters, using an open-faced cowl extension oriented face down at an angle of 45°.

3.0 Analytical Requirements

(A) The following analytical methods shall be used to evaluate the presence of asbestos and/or to determine asbestos content when analyzing samples for the purpose of determining the applicability of Section 5.5, and when analyzing samples collected in accordance with Section 5.5:

3.1 Bulk Samples

(A) Samples of suspect ACM shall be analyzed by polarized light microscopy (PLM), according to United States Environmental Protection Agency (USEPA) Method EPA/600/R-93/116 or equivalent method, to determine if any asbestos fibers are present. If the asbestos content of a sample is estimated to be 1% asbestos or less, but greater than 0%, by a method other than point counting (such as visual estimation), the determination shall be repeated using the point counting technique with PLM. Alternatively, the material may be assumed to be ACM. Analysis shall be conducted by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory.

3.2 Soil Samples and Ash Samples

(A) Prior to preparation of a soil or ash sample, bulk materials shall be separated from the soil or ash sample for independent analysis. Any bulk materials identified in a soil or ash sample that contain any amount of asbestos shall be reported as independent layers of the whole sample. The samples shall be adequately prepared (crushed and dried) to facilitate stereomicroscopic analysis by the laboratory. The goal of the preparation process should be to produce dried conglomerates of approximately one eighth inch (1/8”) to one quarter inch (¼”) size. Rock and/or stone material does not need to be crushed (this process is not intended to be homogenization). Soil and ash samples shall be analyzed by PLM according to USEPA Method EPA/600/R-93/116 to determine if any asbestos fibers are present. Analysis shall be conducted by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory. During the stereomicroscopic analysis (10X – 50X) of the soil/ash sample the analyst shall sift through the sample at a rate of approximately one (1) tablespoon per minute. At the end of the stereomicroscopic analysis the sample shall be agitated or shaken as a final check for asbestos prior to the preparation of PLM grab mounts. At no time during the stereomicroscopic analysis shall a sub sample be collected. The entire sample shall be analyzed and the results reported. If no asbestos was identified by PLM after the initial stereomicroscopic examination, then three (3) random grab mount preparations shall be analyzed by PLM to determine if the sample is none detected for asbestos content. If any asbestos is found by the laboratory it shall be reported even in the absence of a second detection (i.e. there does not need to be a second detection to qualify a trace level of asbestos in the sample). Quantification of asbestos content shall be based on the entire sample volume, and be reported as such.

3.3 Air Samples for Standard RACS Management

(A) Air samples submitted for Phase Contrast Microscopy (PCM) shall be analyzed according to NIOSH Method 7400 by a laboratory showing successful participation in the American Industrial Hygiene Association (AIHA) Proficiency Analytical Testing (PAT) Program or individual(s) certified through the AIHA Asbestos Analysts Registry (AAR) Program.

(B) Air samples submitted for Transmission Electron Microscopy (TEM), for which quantification of asbestos is desired, shall be prepared and analyzed according to the standard Asbestos Hazard Emergency Response Act (AHERA) method (AHERA; 40 CFR Part 763, Subpart E, Appendix A). All TEM analysis shall be performed by a NVLAP accredited laboratory. If a presence/absence analysis is desired, the analysis shall be performed using the AHERA method modified in the following manner:

1) A minimum of two (2) preparations shall be prepared and utilized for each sample.

2) Analysis shall be conducted on a minimum of four (4) grid openings or until three (3) or more structures are identified, whichever comes first.

3) Any structure (adhering to the AHERA counting rules) identified during analysis shall be reported.

a) Identification of less than three (3) structures shall be reported as present.

b) Identification of three (3) or greater structures shall be reported as detected.

(C) Any air sample analysis that results in a “cannot be read (CBR)” determination from the analyst, or a “not analyzed (NA) or rejected” due to loose debris or uneven loading, shall be evaluated by the AMS to determine if a cause of the CBR or NA can be ascertained. If it is determined that the CBR is a result of overloading from airborne emissions, then the AMS shall request that the laboratory prepare the sample, using an indirect preparation method, for TEM presence/absence analysis.

3.4 Risk-Based Air Threshold Samples

(A) Air samples collected for TEM analysis shall be submitted to a NVLAP accredited laboratory. Samples shall be analyzed by TEM according to ISO Method 10312 with the following modifications for PCM equivalent (PCMe) structures:

1) An aspect ratio of 3:1 shall be used when counting structures greater than 5 µm in length, rather than the 5:1 ratio specified in the method.

2) A width range of 0.25 to 3 µm will be used when counting PCMe structures, rather than the 0.2 to 3 µm specified in the method.

3) A minimum of ten grid openings will be counted, rather than the minimum of four (4) grid openings specified in the method.

4) Calculations shall be made based on total fibers rather than primary fibers.

(B) The maximum number of grid openings (GOs) to be counted to achieve the specified analytical sensitivity shall be estimated as follows:

Number of GOs = EFA ÷ (A_{GO} x V x S x CF)

where:

EFA = effective filter area (385 for a 25-mm filter)
A_{GO} = area of a grid opening (approximately 0.01 mm2; actual value to be provided by the analytical laboratory)
V = volume of air sampled (in liters [L])
S = analytical sensitivity (structures per cubic centimeter [s/cc])
CF = conversion factor (1000 cc/L)

(C) Any air sample analysis that results in a "cannot be read (CBR)" determination from the analyst, or a "not analyzed (NA) or rejected" due to loose debris or uneven loading, shall be prepared by the laboratory, using an indirect preparation method, for TEM presence/absence analysis.

3.5 Data Evaluation for Risk-Based Air Threshold Samples

(A) General requirements:

1) Samples collected for comparison to risk-based air thresholds shall be evaluated based on the average (mean) concentration over the exposure duration.

2) All valid data shall be used to calculate daily and ten (10) day rolling averages.

3) For all projects a minimum of three (3) samples per day must have quantifiable data (not CBR or rejected). If less than three (3) quantifiable analytical results are available then the daily average is invalid.

(B) Project days 1-9:

1) The results of the daily samples must be averaged to calculate a daily average for use in comparing to the risk based air threshold for days 1-9 of monitoring.

2) A ten (10) day average shall be calculated for days 1-9. The ten (10) day average shall be comprised of at least eight (8) valid daily average results. However, all valid data shall be used to calculate the ten (10) day average.

3) If the ten (10) day average exceeds the risk-based air threshold, engineering controls shall be adjusted to reduce the daily average.

4) The Department shall be notified within 24 hours if the calculations in paragraphs 1 and 2 above cannot be completed due to invalid data.

(C) Project days 10 and greater:

1) Starting on day 10, a ten (10) day rolling average shall be calculated and compared to the risk-based threshold.

2) If average concentration trends indicate the risk-based air threshold will be exceeded before project completion, engineering controls shall be adjusted to reduce the daily asbestos emissions.

3) If subsequent evaluation of average concentration trends indicates that the risk-based air threshold will still be exceeded before project completion, additional adjustments to engineering controls shall be made.

4) If changes in engineering controls are not effective in reducing airborne concentration trends such that the risk-based air thresholds can be met, consultation with the Department is required.

5) The Department shall be notified within five (5) working days if the averaged airborne asbestos concentration for the entire project exceeds the risk-based air threshold.

4.0 Documentation

(A) All of the following sampling and analytical documentation shall be maintained during a project and available for Department review upon request. This documentation need not be submitted to CDPHE unless requested or as required in a project specific plan.

1) Documentation of bulk, soil, and ash samples shall include:

a. A description of the material being sampled including friability.

i. For samples collected for characterization purposes also include an estimate of the quantity of visible suspected RACS present.

ii. For samples of ash, also include a brief description of the ash layer, and any associated identifiable debris.

b. Name of person collecting the sample(s).

c. Date and time of sample collection.

d. Location of sample collection (a map, drawing, or diagram showing sample locations in relation to the work area and surrounding area).

e. The boundary/limits that are represented by the collected sample.

f. Chain of custody documentation.

g. Laboratory analysis reports.

h. Log of characterized homogeneous bulk materials including material descriptions, photographic documentation, and asbestos content.

2) Documentation of air samples shall include:

a. Name of person collecting the sample(s).

b. Date and time(s) of sample collection.

c. Locations of air sample collection.

d. Any relocation of air samples.

e. A map, drawing, or diagram showing air sample locations (initial and relocations) in relation to the work area and the surrounding area.

f. Chain of custody documentation.

g. Laboratory analysis reports.

h. Explanation of any air sample malfunctions and any voided air samples.

i. Risk based air threshold concentration calculations.

j. Air sample data (flow rates, time of sampling, volumes, calibration method, etc.).

k. Wind speed measurements.

l. Prevailing wind directions.

m. Wind shut down events.

n. Observations of visible emissions and responses.

5.0 Deviations from Sampling and Analysis Procedures

(A) Deviation from this sampling and analysis appendix shall only be allowed upon consultation with, review by, and approval from, the Department.

SECTION 6 INCINERATOR ASH DISPOSAL SITES AND FACILITIES

6.1 GENERAL REQUIREMENTS FOR MANAGEMENT OF SOLID WASTE INCINERATOR ASH

6.1.1 In addition to applicable requirements in the preceding sections of these regulations, this Section 6 shall apply to the management and disposal of solid waste incinerator ash.

6.1.2 Solid waste incinerator ash must either be beneficially used or reused, as defined in paragraph 6.1.3, or finally disposed in accordance with paragraphs 6.1.4 through 6.2.10.

6.1.3 Beneficial use or reuse of solid waste incinerator ash must receive approval from both the Colorado Department of Health and the county. In order to constitute beneficial use the applicant must demonstrate:

(A) That the waste material can meet the same specifications as alternative non-waste materials; and

(B) That the beneficially used waste materials will not release contaminants into the environment.

6.1.4 Solid waste incinerator ash must be disposed of only at approved or designated solid waste disposal sites and facilities. Sites not approved to take solid waste incinerator ash on a continuous basis must receive approval from the Department and the local governing body having jurisdiction. A substantial change in operations may be required prior to accepting the residual ash for disposal at the facility.

6.1.5 All solid waste combustion ash and associated waste water and fugitive dust handling and disposal shall comply with all applicable laws and regulations, and with all applicable local zoning laws and ordinances.

6.1.6 Residual ash shall be dewatered to remove any free liquids prior to shipment to a disposal site. The ash residue must be wet enough so the surface of the ash remains damp after unloading at a landfill until soil cover material can be applied.

6.1.7 Transportation of ash shall occur in equipment designed and utilized to prevent leakage, spillage or dispersion of the material during transportation.

6.1.8 The ash must be covered daily or less frequently as approved by the Department considering factors such as the type of ash, the climate and hydrogeology of the site and size of the active area. In any regard, the ash must be covered at intervals sufficient to prevent infiltration of precipitation and fugitive dust problems from the ash.

6.2 MUNICIPAL SOLID WASTE INCINERATOR ASH DISPOSAL STANDARDS

6.2.1 These regulations apply to the management and disposal of municipal solid waste incinerator ash, except as provided for in 6.2.2 for facilities in operation prior to adoption of these regulations.

6.2.2 Those sites and facilities in operation prior to adoption of these regulations, must comply with Sections 6.1 of these regulations and may be required to come into compliance with all other regulations in this section applicable to the management and disposal of municipal solid waste incinerator ash upon a determination by the Department that such sites and facilities may be causing impact of existing or future uses of surface or ground water.

6.2.3 Municipal solid waste incinerator ash must be disposed of in lined monofills having leachate detection and collection systems. The Department may waive the requirement of monofilling on a case-by-case basis if, after taking into consideration factors such as ash volume, physical and chemical characteristics of the ash including toxicity, leaching potential and site characteristics, the operator can demonstrate that codisposal with solid waste would provide the degree of environmental protection equal to that provided by monofilling.

6.2.4 Plans and specifications for the liner and leachate collection system shall be included in the facility engineering report. The liner and leachate collection system must meet the following minimum standards:

6.2.5 The liner shall be constructed on a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure due to settlement, compression or uplift.

6.2.6 The liner shall consist of a minimum of 2 feet compacted clay below the leachate collection system, with 10^{-7} cm/sec permeability or an equivalent liner which includes a synthetic material. The liner must be installed using quality control measures specified in the facility engineering report to ensure attainment of the design permeability and to prevent damage to the liner during construction and during the active life of the landfill.

6.2.7 The system for the collection of leachate shall conform to the following standards:

(A) Protective cover shall be provided which allows for the flow of any leachate generated by the ash to the collection layer; and prevents damage to the liner system.

(B) The collection system shall be designed to ensure that liquids and leachate will drain continuously from the protective cover to the collection sump or point without ponding or accumulating on the liner and shall have adequate provisions for maintenance and cleaning.

(C) The leachate collection and removal system must be constructed of materials that are: (1) chemically resistant to the leachate which is expected to be generated and (2) of sufficient strength and thickness to prevent collapse under the pressures exerted by the overlying ash, cover materials, and by equipment used at the landfill.

6.2.8 At least two (2) feet of compacted clay of 10^{-7} cm/sec permeability and one foot of soil cover must be placed over the disposal site at closure. Final grades and cover design shall ensure proper drainage to prevent infiltration of water and provide stabilization to control erosion and maintain the integrity of the cap at closure.

6.2.9 A plan for monitoring of leachate in the collection system and procedures for handling, treatment and disposal must be contained in the facility operations report.

6.2.10 Monitoring of the leachate detection and collection system and groundwater monitoring shall continue through post closure for a minimum of twenty (20) years.

SECTION 7 REGULATIONS FOR TRANSFER STATIONS

7.1 PURPOSE, SCOPE AND APPLICABILITY:

(A) The purpose of this section is to establish minimum health and safety standards for the operation of transfer stations. The criteria apply to all transfer stations at which refuse generated off-site awaits transportation to approved solid waste disposal sites and facilities. At such sites, refuse may be transferred from one type of containerized collection receptacle, is processed by shredding, baling, or compaction, and then placed into another receptacle. Other waste management and disposal activities conducted at the site of the transfer station may require regulation by the Department and a certificate of designation from the local governing body having jurisdiction.

(B) A transfer station shall not be deemed to be a solid waste disposal site and facility and therefore, such a facility shall not be required to apply for and obtain a certificate of designation as outlined in these regulations. The governing body having jurisdiction can request, in writing, that the Department conduct a technical review of the site and facility documents and its operation plan. The Department shall be notified, by the governing body having jurisdiction when a permit approving a transfer station is issued. A copy of the approved operations plan shall be maintained at the transfer station.

(C) An intermediate processing facility is a transfer station under these regulations and a material recovery facility is a recycling facility under Section 8 of these regulations.

(D) Only residential and commercial waste shall be accepted at transfer stations. Wastes such as asbestos waste and contaminated soil shall not be accepted at transfer stations unless the transfer station is specifically designed and approved for these wastes.

(E) Transfer stations shall comply with the health laws, standards, rules, and regulations of the Department, the storm water rules of the Water Quality Control Commission, the Air Quality Control Commission, and all applicable local laws, ordinances and regulations.

(F) In conformance with Section 1.5.2, portions of these requirements may be waived or modified for small rural transfer stations as long as the performance of the site under the altered requirements is as protective of public health and the environment as these regulations.

7.2 OPERATING PLAN CRITERIA

Owners or operators of all new transfer stations shall develop an operation plan that contains, as a minimum, descriptive responses of compliance to this subsection.

7.2.1 General data and maps

(A) Name(s) and address(es) and telephone number(s) of the owner /operator. Name and address and phone number of the person(s) operating the facility and having the authority to take corrective action in an emergency.

(B) Facility mailing address, county and legal description including 1/4 section, section, township and range.

(C) Regional map depicting service area, existing and proposed.

(D) Vicinity map showing access and service roads, zoning and land use, residences, water wells and the location of all surface water bodies, the location of 100 year flood plain boundaries, and all manmade or natural features relating to the facility within a 1/2 mile radius.

(E) Site map showing adjacent properties including land use, property owners names and addresses, site property boundaries and area (acres). If proposed site is adjacent to public roads or streets, include the properties across the street or road. The map should show the present site, conditions and the projected site utilization including all site structures (such as buildings, fences, gates, entrances and exits, parking areas, on-site roadways, and signs) and the location of all water supplies and utilities. This site map shall be certified by a state licensed surveyor or engineer.

(F) Site maps and drawings showing all the proposed, structures -and areas designated for unloading, baling, compacting, storage, and loading, including the dimensions, elevations, and floor plans of these structures and areas, including the general process flow.

(G) Facility's drainage system and water supply system.

7.2.2 Design criteria

(A) <u>Unloading and loading areas shall be:</u>

(1) Adequate in size to facilitate efficient unloading from the collection vehicles and the unobstructed movement of vehicles;

(2) Constructed of concrete or asphalt paving material and equipped with adequate drainage structures;

(3) Solid waste handling shall be confined to the smallest practical area. Such handling shall be supervised by competent operating personnel who shall be familiar with proper operational procedures;

(4) Sufficient internal storage areas to provide for incoming solid waste;

(5) Exhaust removal systems shall be installed in enclosed areas; and

(6) Measures shall be provided to prevent backing into pits while unloading.

(B) On-site roads

(1) Designed to accommodate expected traffic flow in a safe and efficient manner;

(2) The road surface design shall be suitable for heavy vehicles and the road base shall be capable of withstanding expected loads;

(3) Passable, in all weather conditions, by loaded collection and transfer vehicles. Provisions shall be made for de-icing ramps during winter months; and

(4) Where public dumping is allowed, separate access for passenger vehicles shall be provided.

(C) Equipment Number, description and uses of all equipment projected to be employed including the design capacity.

(D) Gate and fencing Types and heights of suitable gate and fencing material to be placed on site, to limit unauthorized persons from access to the facility when the facility is closed.

(E) Signs A sign shall be posted, at all access points to the facility, with the hours of operation, the types of solid waste accepted and not accepted, the operating hours the facility accepts wastes, and emergency telephone numbers of a responsible party.

(F) Buffer zones Buffer zone of 200 feet around the active operating area to the nearest property line in residential zoned areas, or as otherwise established by the governing body having jurisdiction.

7.2.3 Operation standards

(A) Waste characterization The types, composition, and expected daily volume of all solid waste to be accepted at the facility in cubic yards or tons/per day, the maximum time any such waste will be stored, and the proposed capacity of the facility.

(B) Supervision Facilities with permanent continually operating mechanical equipment shall have an attendant on duty at all times the facility is open to the public.

(C) Personnel The number, classification, and job descriptions of personnel to be employed at the facility when operating at full capacity. A personnel training plan which includes recognizing unauthorized waste such as PCB's and hazardous wastes, equipment operation, and any other personnel concerns.

(D) Nuisance conditions All reasonable measures shall be employed to collect, properly contain, and dispose of scattered litter, including frequent policing of the area, and the use of wind screens where necessary. The facility shall be managed in such a manner that noise, dust and odors do not constitute a hazard to human health. The facility shall be managed in such a manner that the attraction, breeding and emergence of birds, insects, rodents and other vectors do not constitute a health hazard.

(E) Off-site water Control measures shall be provided to protect surface and ground waters, including run-off collection and discharge, designed and operated to handle a twenty-four (24) hour, twenty-five (25) year storm and equipment cleaning and washdown water.

(F) Fire protection Fire protection equipment shall be available at all times. A fire protection plan including provisions to prevent the spread of fire to adjoining property shall be approved by the local fire department.

(G) Operational records Records shall be maintained for all facilities. These records shall include a daily log of the quantity of solid waste received and transported, as-built construction details, and variations from approved operations procedures. Records shall be kept on-site whenever practicable or as otherwise approved.

(H) Contingency plan Contingency plans specifying the procedures to be followed to handle situations such as the following shall be available at all times to the transfer station attendants:

(1) Hazardous material incident, including emergency response contacts, equipment, identification of trained personnel, and notification procedures;

(2) Contamination of surface water or ground water;

(3) Nuisance conditions on site or confirmed beyond the site boundary; and

(4) Alternate solid waste handling system for periods of inability to operate or delays in transporting solid waste due to fires, unusual traffic conditions, equipment breakdown, hot loads, or other emergencies or undesirable conditions.

(I) Cleaning facilities handling more than 100 cubic yards of waste per day shall be cleaned daily of all loose materials and litter, by wash-down or other approved method, to prevent odors and other nuisance conditions. All residuals shall be properly removed and disposed. All boxes, bins, pits or other container type used shall be cleaned on an approved schedule.

(J) Standing water All floors shall be free from standing water. All drainage from cleaning areas shall be discharged to sanitary sewers or other methods that meet local pre-treatment standards.

(K) Storage adequate Storage space for incoming solid waste shall be available at the transfer station. Solid wastes should be loaded into the containerized collection receptacle on the same day it arrives at the transfer station. Uncompacted wastes will not be allowed to remain on the tipping floor overnight. Removal of all putrescible solid waste from the transfer station whenever transfer containers are full, or weekly, whichever comes first, is also required. Uncleaned transfer vehicles containing putrescible material shall not be parked on public streets or roads except under emergency conditions. Adequate off-street parking for facility vehicles shall be provided.

(L) All solid waste received at a transfer station shall be transferred as soon as practicable. All solid wastes arriving at the transfer station that are not transferred within twenty-four (24) hours of receipt shall be placed in closed containers or in totally enclosed buildings, structures, or other means of cover acceptable to the Department, that deter water, birds, insects, rodents and other vectors from reaching wastes.

(M) Final disposal All solid waste passing through the transfer station shall be ultimately treated or disposed of in an approved solid waste disposal site and facility.

(N) Water supply The amounts-and source-of water, for--use on site for the control of nuisance conditions, fire protection, construction purposes and personnel use shall be presented.

7.2.4 Closure plans for final closure of the transfer station shall include a plan for the removal of all stored solid wastes and washdown liquids. The Department and the local governing authority shall be notified, in writing, of temporary or permanent closure of the transfer station.

SECTION 8 RECYCLING & BENEFICIAL USE

8.1 GENERAL PROVISIONS

8.1.1 Purpose

Consistent with § 30-20-102(5), C.R.S., the overall purpose of these rules is to encourage responsible recycling and beneficial use of recyclable materials. Section 8 is a fully integrated framework to provide a regulatory structure for sites and facilities that manage recyclable materials. Section 8 additionally sets the requirements for beneficial use of solid waste projects. Section 8 is designed to manage recycling facilities and beneficial use based on the classification of materials and facilities accepting recyclable materials. The regulations set forth in Section 8 are classified and defined into the following sub-categories:

8.2 Municipal Solid Waste (MSW) Drop-off sites and recyclable material generators;

8.3 MSW Material recovery facilities;

8.4 MSW Recyclable material end users;

8.5 Industrial recycling operations; and

8.6 Beneficial use projects.

8.1.2 Scope and Applicability

The scope of this section applies to any site and facility operated for the purpose of processing, reclaiming, or recycling recyclable materials that qualify for the statutory exemption from the requirement to obtain a certificate of designation and as a solid waste disposal site and facility as provided in § 30-20-102(5), C.R.S. Also included in this section are all sites subject to the reporting requirements of § 30-20-122, C.R.S.

8.1.3 Minimum Site and Facility Standards

(A) A recycling facility that does not comply with the requirements set forth in Section 8 is a solid waste disposal site and facility and is, therefore, subject to Section 1 and all other applicable sections of the Solid Waste Regulations.

(B) A recycling facility shall be operated in order to prevent ground water contamination and the creation of off-site odors as a result of processing, reclaiming, recycling, or storage prior to recycling.

(C) To qualify as a recycling facility, a facility must be able to meet the required three year rolling average material turnover rate set forth in this section and defined in the solid waste definitions.

(D) Recycling facilities shall comply with the health laws, standards, rules, and regulations of the Department, the Water Quality Control Commission, the Air Quality Control Commission, and all applicable local laws and ordinances.

8.1.4 Exemptions

This section 8 does not apply to the following:

(A) Biosolids and activities regulated under section 25-8-205(1)(e), C.R.S;

(B) Composting facilities that are regulated under Section 14 of these regulations, unless recycling operations are conducted at that facility;

(C) Waste grease recycling regulated under Section 18 of these regulations, unless recycling operations are conducted at that facility;

(D) Waste tire collection facilities or waste tire processors or end-users that are regulated under Section 10 of these regulations, unless recycling operations are conducted at that facility;

(E) Facilities that collect and process only scrap automobiles, scrap appliances, or other processed scrap metal, unprocessed home scrap metal, unprocessed prompt scrap metal, and obsolete scrap metal, as those terms are defined in section 30-20-101, C.R.S.;

(F) Facilities that collect and process only shredded circuit boards;

(G) Recyclable hazardous waste and household hazardous waste; and

(H) Household hazardous waste roundup events, community cleanup events, and other one-time or occasional collection events where yard waste and other recyclable materials are accepted for drop-off by private citizens for cleanup events.

8.2 MSW DROP-OFF SITES AND RECYCLABLE MATERIAL GENERATORS

8.2.1 Scope and Applicability

Section 8.2 is applicable to all municipal solid waste drop-off sites and recyclable material generators that meet the following criteria and operations:

(A) All sites defined as a drop-off site; and

(B) All sites defined as a recyclable material generator.

8.2.2 Exemptions

All drop off sites and recyclable material generators that meet the following criteria are exempt from the registering and the reporting requirements:

(A) Drop-off sites and recyclable material generators where the collected recyclable materials are sent to be processed at a registered recycling facility operating in Colorado;

(B) Non-baled recyclable material storage, and drop-off sites with containers less than a total of twelve cubic yards of recyclable material storage; and

(C) Industrial recycling operations, which are exempt from Section 8.2 but subject to Section 8.5.

8.2.3 Minimum Material Turnover

Recyclable material at drop-off sites and at recyclable material generator locations shall be collected and managed at a rate to prevent an overflow of material from containers, bins, or other adequate storage methods.

8.2.4 Reporting and Recordkeeping

(A) Recyclable material generators which collect and send recyclable material directly out of state for recycling and/or processing shall register with the Department and submit the Recycling Facility Annual Reporting Form to the Department by March 1st of each year for the previous calendar year. The annual report shall provide the following information:

(1) Types of materials recovered for recycling based on the Department's material classification;

(2) Amount in tons of each material recovered for recycling;

(3) Destination of each material and amount per destination; and

(4) Company name, address, and phone number, and email.

(B) Facilities may request confidential business information protection on the amount and destination of materials recovered for recycling data submitted per § 24-72-204(3)(a)(IV), C.R.S.

(C) Recyclable material generators and operators of drop-off sites that collect and send recyclables directly out of state may provide one Recycling Facility Annual Reporting Form for multiple recycling site locations documenting the total amount of each material collected for recycling statewide specifying material collected per location in the report.

8.3 MSW MATERIAL RECOVERY FACILITIES

8.3.1 Scope and Applicability

(A) Section 8.3 applies to material recovery facilities (MRFs) as defined in the solid waste definitions.

(B) A material recovery facility that does not comply with or meet the conditions identified in this section will be considered a solid waste disposal site and facility that is subject to Section 1 and all other applicable sections of the Solid Waste Regulations.

(C) A facility that manages municipal solid waste recyclable materials is subject to section 8.3.

8.3.2 Exemptions

The following operations are exempt from Section 8.3:

(A) Drop-off sites subject to Section 8.2;

(B) Industrial recycling operations subject to Section 8.5;

(C) Composting operations subject to Section 14 of the regulations pertaining to solid waste.

8.3.3 Facility Registration

All Material Recovery Facilities shall register with the Department and submit the following required information on the Recycling Facility Initial Registration Form:

(A) The name, physical and mailing address of the facility, including a business and corporate name as necessary;

(B) The name and address of the owner and the operator;

(C) The emergency contact for a 24-hour contact; and

(D) Types of recyclable material collected based on the Department's material classification.

8.3.4 General Site Requirements

(A) All sites defined as material recovery facilities shall have an operations plan detailing how the facility qualifies for § 30-20-102(5), C.R.S. and how it will operate and ensure the facility does not become a solid waste disposal site and facility. The operations plan must be kept on-site or at a Department-approved off-site location. Facilities may request a plan review by the Department. The operations plan shall include the following:

(1) A physical description of the facility and the types of recyclable materials managed;

(2) Methods to control public access and prevent unauthorized vehicle traffic and illegal dumping by adequate fencing or other security means;

(3) Emergency response procedures including procedures to prevent and control fires;

(4) Procedures for preventing receipt of unauthorized waste; and

(5) A closure plan including a plan for the disposition of collected materials on-site at the time of closure.

(B) Following a 1-year accumulation period, the weight or volume of recyclable materials that are recycled shall be at least 75% of the total weight or volume (determined using a consistent measure) of recyclable materials received and currently in storage over a 3-year rolling average.

(C) Upon filing a written justification to the Department, a recycling facility may implement a commodity and site-specific variance to the accumulation period and/or minimum recycling rate requirement, and/or material specific variance to the accumulation period and/or recycling rate. The Department reserves the right to deny such a submittal based on the grounds of the facility operating in a manner that is producing, or could lead to nuisance conditions.

(D) Intermediate processing facilities which accept recyclable material combined with municipal solid waste shall comply with all regulations in Section 7 regarding transfer stations.

(E) Electronic recycling facilities shall comply with all applicable local, State and Federal requirements.

8.3.5 Recordkeeping and Reporting

(A) All material recovery facilities shall complete the Recycling Facility Annual Reporting Form and submit to the Department by March 1st of each year for the previous calendar year. The annual report shall provide the following information:

(1) Types of materials recovered for recycling based on the Department's material classification;

(2) Amount in tons of each material recovered for recycling;

(3) Destination of each material and amount per destination to prevent double counting; and

(4) Amount of material remaining on-site.

(B) Facilities may request confidential business information protection on weight or volume data and destination of materials submitted per § 24-72-204(3)(a)(IV), C.R.S.

(C) All material recovery facilities shall maintain records on-site for at least the previous three years.

8.3.6 Closure Requirements

(A) No person shall close a material recovery facility without notifying the Department in writing at least sixty (60) calendar days in advance of initiating closure.

(B) Prior to completing the closure activities, all recyclable materials and solid waste shall be processed, reclaimed, or recycled so that potential off-site odors, ground water contamination, and nuisance conditions shall be addressed. Any material remaining on-site following closure renders the site a solid waste disposal site.

(C) Closure shall be completed within one hundred eighty (180) calendar days of initiating closure activities.

(D) Facilities shall submit a final report to the Department within ninety (90) calendar days of completing closure.

8.4 MSW RECYCLABLE MATERIAL END USERS

8.4.1 Scope and Applicability

This section applies to all recyclable material end users, which includes but is not limited to all facilities which utilize municipal solid waste recyclable materials to be processed into a product as defined in the solid waste definitions.

8.4.2 Exemptions

The following operations are exempt from Section 8.4:

(A) On-site recycling facilities that process only recyclable materials generated on-site;

(B) Industrial recycling operations subject to Section 8.5.

(C) Composting operations subject to Section 14 of the Solid Waste Regulations.

(D) Facilities which utilize a recycled material feedstock which has already been processed into a product.

8.4.3 Facility Registration

All recyclable material end users shall register with the Department and submit the following required information on the Recycling Facility Initial Registration Form:

(A) The name, physical and mailing address of the facility, including a business and corporate name as necessary;

(B) The name and address of the owner and the operator;

(C) The emergency contact for a 24-hour contact; and

(D) Types of recyclable material collected.

8.4.4 General Site Requirements

All sites classified as a recyclable material end user shall follow best management practices for storage and utilization of the specific recyclable material which includes at a minimum:

(A) Recyclable materials shall be stored indoors, covered, or properly managed in order to prevent ground water contamination and off site odors.

(B) Following a 1-year accumulation period, the weight or volume of recyclable materials that are recycled shall be at least 75% of the total weight or volume (determined using a consistent measure) based on the amount of recyclable materials received and currently in storage over a 3-year rolling average.

(C) Upon filing a written justification to the Department, a recycling facility may implement a commodity and site-specific variance to the accumulation period and/or recycling rate, and/or material specific variance to the accumulation period and/or recycling rate. The Department reserves the right to deny such a submittal based on the grounds of the facility operating in a manner that is producing, or could lead to nuisance conditions.

(D) A recyclable material end user that does not comply with or meet the conditions identified in this section will be considered a solid waste disposal site and facility and is, therefore, subject to Section 1 and all other applicable sections of the Solid Waste Regulations.

8.4.5 Recordkeeping and Reporting

(A) All recycling facilities are required to complete the annual Recycling Facility Annual Reporting Form and submit to the Department by March 1st of each year for the previous calendar year. The annual report shall provide all information required by the Department to properly complete the legislative requirement of recycling data including:

(1) Types of materials recovered for recycling based on the Department's material classification;

(2) Amount in tons of each material recovered for recycling; and

(3) Amount of material remaining on-site.

(B) Facilities may request confidential business information protection on weight or volume data and receipt of materials submitted per § 24-72-204(3)(a)(IV), C.R.S.

(C) Recyclable material end users shall maintain records on-site for at least the previous three years.

8.4.6 Closure Requirements

(A) No person shall close a recycling facility without notifying the Department in writing at least sixty (60) calendar days in advance of the closure date.

(B) Prior to completing the closure activities, all recyclable materials and solid waste shall be processed, reclaimed, or recycled so that potential off-site odors, ground water contamination, and nuisance conditions shall be addressed. Any material remaining on-site following closure renders the site a solid waste disposal site.

(C) Closure shall be completed within one hundred eighty (180) calendar days of initiating closure activities.

(D) Facilities shall submit a final report to the Department within ninety (90) calendar days of completing closure.

8.5 INDUSTRIAL RECYCLING OPERATIONS

8.5.1 Scope and Applicability

Section 8.5 applies to industrial recycling operations, operated for the purpose of processing, reclaiming, or recycling recyclable materials. Industrial recycling operations include the following recyclable materials:

(A) Construction & demolition debris;

(B) Other recyclable materials as approved by the Department.

8.5.2 Recyclable Material Performance Criteria

The Department will consider the following criteria in making determinations to define what materials shall be deemed to be recyclable materials as a result of processing, reclaiming, recycling, or storage prior to recycling:

(A) Adherence to established engineering or other appropriate specifications;

(B) Adherence to established product, end user specifications or customer conditions of acceptance;

(C) Environmental impacts;

(D) Demonstrated benefit associated with the use; and

(E) Actual use as a substitute for, or in conjunction with, a commercial product or raw material.

8.5.3 Exemptions

The following operations are exempt from Section 8.5:

(A) On-site recycling operations where the processing of recyclable materials occurs on the same site from where the recyclable materials are generated and that recycle and store only materials generated on-site and meet the performance criteria of 8.5.2. Creation of ground water contamination, off-site odors, and speculative accumulation of waste materials voids this exemption.

(B) Concrete and asphalt operations when the material is managed like a commodity by meeting the following conditions:

(1) material is managed and separated into commodity specific piles processed for reuse;

(2) material is managed in active piles separated by material type or use within the past year; and

(3) Incoming loads shall have all non-concrete, non-asphalt and non-rebar material removed from concrete and asphalt materials within thirty (30) calendar days and non-concrete, non-asphalt and non-rebar material shall not exceed 10% of the total material onsite by weight or volume.

(C) Environmental media storage and reuse.

8.5.4 Facility Registration

Prior to receiving recyclable materials, the owner/operator of an industrial recycling operation must submit, for Department review and approval, an Industrial Material Recycling Facility Initial Registration Form. The registration must provide the following information:

(A) The name, physical and mailing address of the facility, including a business and corporate name as necessary;

(B) The name, address and other contact information of the facility owner and operator;

(C) The name, address and other contact information of the property owner;

(D) The emergency contact for a 24-hour contact;

(E) Types of recyclable material collected; and

(F) Either an Industrial Recycling Facility Operations Plan or Industrial Recycling Facility Design and Operations Plan as specified in Section 8.5.5.

8.5.5 General Site Requirements

(A) All industrial recycling operations must submit to the Department, for review and approval, either an Industrial Recycling Facility Operations Plan or an Industrial Recycling Facility Design and Operations Plan detailing how the facility will operate in accordance with § 30-20-102(5), C.R.S., prior to the importation of recyclable materials.

(B) All industrial recycling operations that process liquid or leachable recyclable materials must submit an Industrial Recycling Facility Design and Operations Plan to document the operations will not contaminate ground water. The design and operations plan must include the following information:

(1) A physical description of the facility and the types of recyclable materials managed;

(2) Methods to prevent unauthorized vehicle traffic and illegal dumping by adequate fencing or other security means;

(3) Procedures for preventing receipt of unauthorized waste and procedures for safely managing and properly disposing of unauthorized waste;

(4) An initial accumulation plan that includes a time frame for the initial accumulation of recyclable materials and the maximum volume and weight of the recyclable materials to be received during the initial accumulation period. This time frame may differ for individual recyclable materials as approved by the Department;

(5) A facility engineering design showing engineered features that will prevent liquid and leachable materials from negatively impacting groundwater; and

(6) A closure plan including a plan for the disposition of collected materials on-site at the time of closure.

(C) All other industrial recycling operations that do not fall within Paragraph (B) of this Section 8.5.5 must submit an Industrial Recycling Facility Operations Plan. The operations plan must include the following information:

(1) A physical description of the facility and the types of recyclable materials managed;

(2) Methods to prevent unauthorized vehicle traffic and illegal dumping by adequate fencing or other security means;

(3) Procedures for preventing receipt of unauthorized waste and procedures for safely managing and properly disposing of unauthorized waste;

(4) An initial accumulation plan that includes a time frame for the initial accumulation of recyclable materials and the maximum volume and weight of the recyclable materials to be received during the initial accumulation period. This time frame may differ for individual recyclable materials as approved by the Department; and

(5) A closure plan including a plan for the disposition of collected materials on-site at the time of closure.

(D) Following the Department-approved accumulation period not exceeding 365 days, the weight or volume of recyclable materials that are recycled must be at least 75% of the total weight or volume (determined using a consistent measure) of recyclable materials received and currently in storage over a 3-year rolling average.

(E) Industrial recycling operations must operate in accordance with their Department-approved Industrial Recycling Facility Operations Plan or Industrial Recycling Facility Design and Operations Plan.

(F) Upon filing a written justification to the Department, a recycling facility may implement a commodity and site-specific variance to the accumulation period and/or recycling rate, and/or material specific variance to the accumulation period and/or recycling rate. The Department reserves the right to deny such a submittal based on the grounds of the facility operating in a manner that is producing, or could lead to nuisance conditions.

(G) The owner or operator of an industrial recycling operation must submit a copy of the Industrial Recycling Facility Operations Plan or Industrial Recycling Facility Design and Operations Plan to the local governing body having jurisdiction at the time the plan is submitted to the Department.

8.5.6 Recordkeeping and Reporting

(A) All industrial recycling operations shall complete the Recycling Facility Annual Reporting Form and submit to the Department by March 1st of each year for the previous calendar year. The annual report shall provide all information required by the Department to properly complete the legislative requirement of recycling data including:

(1) Types of materials recovered for recycling based on the Department's material classification;

(2) Amount in tons of each material recovered for recycling;

(3) Destination per material and amount per destination to prevent double counting; and

(4) Amount of material remaining on-site.

(B) Facilities may request confidential business information protection on weight or volume data and destination of materials submitted per § 24-72-204(3)(a)(IV), C.R.S.

(C) All industrial recycling operations shall keep and maintain records on-site for at least the previous three years.

8.5.7 Closure Requirements

(A) No person shall close a recycling facility without notifying the Department in writing at least sixty (60) calendar days in advance of the closure date.

(B) Prior to completing the closure activities, all recyclable materials and solid waste shall be processed, reclaimed, or recycled so that potential off-site odors, ground water contamination, and nuisance conditions shall be addressed. Any material remaining on-site following closure renders the site a solid waste disposal site.

(C) Closure shall be completed within one hundred eighty (180) calendar days of initiating closure activities.

(D) Facilities shall submit a final report to the Department within ninety (90) calendar days of completing closure.

8.6 BENEFICIAL USE

8.6.1 Scope and Applicability for Beneficial Use

(A) This section applies to the beneficial use of solid wastes, including but not limited to those listed in a table found on the Pre-Approved Beneficial Uses Table. The following tables referenced in this Section 8.6, as may be amended by the Department, are on the Division's website:

(1) Table 1A: Category 1 Total Elemental Analysis Table. Table 1A provides total elemental analysis testing criteria for Category 1 beneficial use materials.

(2) Table 1B: Category 1 and 2 Analyte Mobility Analysis Table. Table 1B provides water leaching testing criteria for Category 1 & 2 beneficial use materials.

(3) Table 2: Beneficial Use-by-Category Table. Table 2 defines allowable beneficial uses based on Category of Material.

(4) Table 3: Pre-Approved Beneficial Uses Table. Table 3 provides pre-approved beneficial uses that do not require testing and characterization under Section 8.6.

(B) This section serves to encourage the utilization of solid wastes.

(C) Proposals for those beneficial uses not listed in or removed from the Pre-Approved Beneficial Use Table will be reviewed by the Department according to the criteria set forth in this Section, resulting in the issuance of a Beneficial Use Determination (BUD) by the Department.

(D) Persons requesting the beneficial use of solid waste may propose alternative material characterization and beneficial use evaluation processes as identified in § 8.6.5(E).

8.6.2 Performance and Storage Standards

(A) Waste management, including handling, processing, treatment, storage, and ultimate disposition of wastes, may not have:

(1) A negative impact on groundwater quality; and

(2) Environmental impacts exceeding:

i. Those expected from available commercial products or raw materials;

ii. Department-approved unrestricted use concentrations that are protective of ground and surface water; or

iii. Any residual constituents exceeding background concentrations for those constituents.

(B) The weight or volume of recyclable materials that are recycled shall be at least 90% of the total weight or volume (determined using a consistent measure) of recyclable materials received and currently in storage over a 3-year rolling average.

(C) Waste usage shall comply with applicable federal, state, and local requirements;

(D) Upon failing to meet any of the above performance standards, the Department may revoke the beneficial use approval, and the Solid Waste regulations shall apply; and

(E) Use of the waste material shall meet the following criteria:

(1) Adherence to established engineering or other appropriate specifications;

(2) Adherence to established product, end user specifications or customer conditions of acceptance;

(3) Demonstrated benefit associated with the use; and

(4) Actual use as a substitute for, or in conjunction with, a commercial product or raw material.

(F) Any waste generation facility storing waste for beneficial use shall remove the waste prior to discontinued use and provide written notification to the Department describing the closure activities that have taken place.

8.6.3 [Reserved]

8.6.4 Department Approved Beneficial Uses

The Department has approved beneficial uses specified in the Pre-Approved Beneficial Use Table. A person may use wastes specified on the Pre-Approved Beneficial Use Table and meet the performance standards listed in 8.6.2 without prior approval from the Department, unless there is reason to believe the waste contains contaminants that exceed the Department approved unrestricted use concentrations that are protective of ground and surface water, or background constituent concentrations or alternative criteria approved by the Department.

8.6.5 Beneficial Use Waste Material Characterization

(A) Non-characterized materials or categorized uses:

Testing programs and beneficial uses for wastes not specifically listed in the Category 1 Total Elemental Analysis Table, Category 1 and 2 Analyte Mobility Analysis Table and the Beneficial Use by Category Table and the Pre-Approved Beneficial Use Table shall be approved by the Department on a case-by-case basis. Wastes or uses not listed on Category 1 Total Elemental Analysis Table, Category 1 and 2 Analyte Mobility Analysis Table and the Beneficial Use by Category Table and the Pre-Approved Beneficial Use Table shall follow the characterization testing requirements described in Section 8.6.5, unless another characterization method or process is approved by the Department. The characterization results shall be reported to the Department as specified in Section 8.6.5 (E). The Department will assign an appropriate category.

(B) Initial Characterization:

Any waste stream proposed for a specific beneficial use shall be properly characterized prior to beneficial use to determine its category under Section 8.6.6.

(C) Characterization Methods:

(1) The limits of quantitation used in the characterization shall be at or below the concentration listed in Category 1 Total Elemental Analysis Table and Category 1 and 2 Analyte Mobility Analysis Table for each parameter for the specific target category. All material sampling, total elemental analyses and analyses of leach testing shall be performed using EPA SW-846 methods, unless otherwise approved by the Department. The Department may require additional tests to characterize waste materials prior to beneficial use. The limit of detection and the limit of quantitation shall be reported with the sample results. If a substance is reported below the limit of quantitation, the detected value with the appropriate qualifier shall be reported.

(2) All wastes to be beneficially used in accordance with these regulations shall be determined not to be a hazardous waste as defined under § 25-15-302, C.R.S.

(3) All wastes which are characterized to determine eligibility for Category 1 and 2 under Section 8.6.6 shall be analyzed using EPA SW-846 methods for determining the mobility of analytes in liquid, soils and wastes, or other methods as approved by the Department.

(4) All wastes characterized to determine eligibility for Category 1 under Section 8.6.6 shall be analyzed using EPA SW-846 methods for determining total elemental analytes present in liquids, soils or waste, or methods as approved by the Department.

(5) All waste shall be evaluated through geotechnical engineering methods or other appropriate means to show suitability for intended beneficial uses.

(D) Recharacterization:

Wastes that are beneficially used under this section shall be recharacterized after the initial characterization in accordance with this section, unless the Department approves an alternative recharacterization method and/or frequency. Persons may use knowledge of the constituents, materials and beneficial use in lieu of the following material characterization process, if the constituents, materials and beneficial uses have not changed since the initial BUD. In these cases the person must provide a statement to the Department by March 1 each year following the initial BUD.

(1) Representative sampling of each Category 1 waste shall be performed in the same manner as specified for the initial characterization once each year.

(2) Representative sampling of each Category 2 waste shall be performed in the same manner as specified for the initial characterization once every 2 years.

(3) Notwithstanding the frequencies set forth in (D)(1)-(D)(2) above, representative sampling of each waste shall be performed whenever there is any change in the waste generation process.

(E) Department notification:

(1) Each waste generator or user shall submit initial characterization results, proposed categorization under Section 8.6.6, and estimated quantities to be beneficially used to the Department for approval prior to the beneficial use of waste materials.

(2) Test results from waste recharacterization shall be submitted within thirty (30) calendar days of receipt of recharacterization results. Recharacterization due to processing changes shall be submitted to the Department prior to the beneficial use of the waste.

8.6.6 Beneficial Use Materials Categories

(A) Category 1: Wastes containing constituent concentrations less than those specified in Category 1 Total Elemental Analysis Table and Category 1 and 2 Analyte Mobility Analysis Table may be used as Category 1 beneficial use materials.

(B) Category 2: If a waste does not meet the criteria for Category 1, the characterization test as approved by the Department shall be run on a representative number of samples of the final product. Waste products containing constituent concentrations less than those specified in Category 1 and 2 Analyte Mobility Analysis Table may be used as Category 2 beneficial use materials.

(C) Category 3: Wastes that are characterized as non-hazardous may be used in liquid waste solidification applications where the material is disposed of at the same permitted solid waste disposal site and facility. The site of final disposal shall be permitted to accept such wastes as defined in the facility Design and Operations Plan.

8.6.7 Beneficial Uses

(A) Once characterization is completed, use the Beneficial Use-by-Category Table for a list of potential beneficial uses; and

(B) Wastes may not be placed below groundwater, or into permanent standing water, unless they are a part of a solidified application that has been demonstrated to not impact groundwater. A waiver for approval may be granted for unsolidified uses that are demonstrated to not have a negative impact on groundwater geologically and chemically.

8.6.8 Recordkeeping and Reporting

(A) Ongoing beneficial use operations shall complete the Industrial Recycling Facility Annual Reporting Form and submit to the Department by March 1st of each year for the previous calendar year. The annual report shall provide all information required by the Department to properly complete the legislative requirement of recycling data including:

(1) Types of wastes beneficially used;

(2) Amount in tons of each waste recovered for beneficial use; and

(3) Destination per waste and amount per destination to prevent double counting.

(B) Facilities may request confidential business information protection on weight or volume data submitted per § 24-72-204(3)(a)(IV), C.R.S.

(C) All waste beneficial use operations shall keep and maintain records on-site for at least the previous three years.

SECTION 9 WASTE IMPOUNDMENTS

9.1. GENERAL PROVISIONS

9.1.1. SCOPE AND APPLICABILITY: This Section 9 applies to all waste impoundments, as defined in Section 1.2 of these Solid Waste Regulations, where storage, treatment, utilization, processing, or deposit and final treatment of solid waste occurs, unless exempted in Section 9.1.2 below.

Sections 1 and 2 of these Solid Waste Regulations are applicable to all waste impoundments and ancillary equipment associated with a waste impoundment, unless specifically otherwise noted herein. Sections 1 and 2 of these Solid Waste Regulations do not apply to the impoundments exempted in Section 9.1.2(A)(1), (3), (4), (6), (7), (8), (10), (11), (13), (14), (15), (16) and (17). For ease of use, this Section 9 includes those Section 2 requirements that usually apply to the operation of waste impoundments; however, there may be unique features at a particular facility that trigger additional site-specific Section 2 requirements not referenced in this Section 9.

Facilities subject to this Section 9 must obtain a certificate of designation (CD) unless otherwise exempt per Section 30-20-102, C.R.S., or these Regulations. The CD will include, at a minimum, the engineering, design and operations plan (EDOP) for the facility required by this Section 9. Facilities that require a CD must follow the CD application process in Section 30-20-103, C.R.S., and these Regulations. See section 1.6 of these Solid Waste Regulations.

Facilities subject to this Section 9, but exempt from the requirement to obtain a CD, must provide an EDOP to the Department for review and approval prior to implementation. Nothing in this section shall preclude any review action that may be required by the local governing authority under appropriate local ordinance or rule. See sections 1.3.9 and 1.4.1 of these Solid Waste Regulations.

Section 30-20-100.5(1)(a), C.R.S. provides that proper disposal of solid wastes is a matter of mixed statewide and local concern. Because a facility may also need to comply with applicable local requirements in addition to this Section 9, facilities should check with the local governing authority for their submittal, notification, and approval requirements. The phrase “Department and local governing authority approval, as appropriate,” as used in this Section 9 acknowledges that the Solid Waste Act and Regulations establish dual jurisdiction over solid waste. Facilities should review Title 30, Article 20, Part 1, C.R.S., and the Solid Waste Regulations to determine which authorities apply.

Compliance with this Section 9 shall not relieve the facility owner or operator from the obligation to comply with the facility’s CD and any other applicable federal, state or local statute, regulation, requirement or ordinance.

9.1.2. EXEMPTIONS

(A) This Section 9 does not apply to the following:

(1) Impoundments whose design and primary function is retaining or detaining stormwater for water quality or flood control purposes as required by any state, district, or local requirement;

(2) Stormwater/leachate impoundments subject to the composting regulations under Section 14 of these Solid Waste Regulations;

(3) Raw water impoundments;

(4) Secondary containment;

(5) Tanks incorporating structural and water-retaining elements into their design and construction (exemption includes basins constructed of reinforced concrete and whose joints are sealed with water and joint sealant and whose sidewalls may be either sloped or vertical so long as reinforced);

(6) Impoundments that contain water in a treatment process and whose primary function is water treatment, not waste treatment or disposal (exemption includes drinking water treatment backwash ponds that recycle water for further treatment, even if those ponds are periodically taken out of service for solids handling and removal);

(7) Impoundments that do not contain solid waste, as defined in Colorado Revised Statutes (CRS) 30-20-101;

(8) Impoundments containing only substances exempted from the definition of Solid Waste by section 30-20-101(6)(b)(I) through (VIII), C.R.S.;

(9) Impoundments subject to a consent order, decree or agreement or a written cooperative agreement issued pursuant to the “Solid Waste Disposal Sites and Facilities Act”, CRS, 30-20-101, et seq., as amended, to the extent that the treatment, storage or disposal of such wastes in a waste impoundment is approved by the Department pursuant to such consent order, decree, agreement, or written cooperative agreement;

(10) Impoundments subject to license issued pursuant to the “Radiation Control Act”, CRS 1973, 25-11-101, et seq., as amended;

(11) Impoundments subject to an uncontested order, a consent order, decree or agreement; or a written cooperative agreement issued pursuant to the federal “Comprehensive Environmental Response Compensation and Liability Act of 1980”, as amended, to which the Department is a signatory party, to the extent that the treatment, storage or disposal of such wastes in a waste impoundment is approved by the Department pursuant to such uncontested order, consent order, decree, agreement, or written cooperative agreement;

(12) Impoundments subject to the commercial exploration and production (EP) waste impoundment regulations under Section 17 of these Solid Waste Regulations;

(13) Impoundments subject to the requirements for oil and gas liquid waste impoundments regulated by the Oil and Gas Conservation Commission;

(14) Ponds and basins operating under the Water Quality Control Commission (WQCC) Regulation 64;

(15) Impoundments which are used for temporary or emergency (up to 30 days) storage of solid waste (this temporary storage time-frame must be documented to ensure the 30-day time frame is not exceeded);

(16) Impoundments operating under WQCC Regulation 84;

(17) Impoundments that are subject to a permit issued pursuant to the Colorado Mined Land Reclamation Act, section 34-32-101 and the Colorado Surface Coal Mining Reclamation Act, section 34-33-101, CRS, et seq.

(18) Other waste impoundments exempted, based on a case-by-case determination, by the Department.

(B) **Reserved**

9.1.3. PRECLASSIFICATION:

(A) The following types of impoundments are preclassified as Type A:

(1) Coagulant sludge impoundments at surface water treatment plants;

(2) Reserved.

The impoundment types that are preclassified as Type A are not subject to Sections 9.1.7, 9.1.8, 9.1.9, and 9.3. The impoundment types preclassified as Type A are subject to Section 9.2.

9.1.4 EFFECTIVE DATE: This Section 9 was adopted by the Solid and Hazardous Waste Commission on February 21, 2012 and became effective on March 30, 2012.

9.1.5. DEFINITIONS: For a comprehensive list of definitions, refer to Section 1.2 of these Solid Waste Regulations. The following definitions commonly used relative to this Section 9 are provided for the convenience of the regulated community.

(A) **"Ancillary Equipment"** as used in this Section 9 means any device, such as, but not limited to, piping, fittings, flanges, valves, or pumps, from the first such equipment upstream from a waste impoundment to the first such equipment downstream of the waste impoundment. All other equipment not included in this definition is not ancillary equipment for the purposes of this Section 9.

(B) **"Demonstration Plan"** as used in this Section 9 means an evaluation prepared by an existing waste impoundment facility pursuant to Section 9.1.8 of this Section 9 for purposes of classifying one or more waste impoundments at the facility as Type A or Type B.

(C) **"Existing facility"** as used in Section 9 refers to a facility with waste impoundments that have received solid waste prior to the effective date in Section 9.1.4.

(D) **"Facility"** as used in this Section 9 means a facility with one or more waste impoundments.

(E) **"Site Setting"** as used in this Section 9 means the hydrology, geology, hydrogeology, geography, ground water quality, and/or climate at a particular site or impoundment location.

(F) **"BSGW/Appendix B"** as used in this Section 9 means the ground water quality standards presented in WQCC Regulation 41 (Basic Standards for Ground Water or BSGW; 5 CCR 1002-41), augmented by Appendix B to the Solid Waste Regulations. Appendix B presents a methodology for determining alternate facility- or impoundment-specific enforceable limits for constituents not included in Regulation 41, a methodology for establishing background concentrations in ground water, and a statistical method for evaluating ground water data.

9.1.6 CLASSES OF WASTE IMPOUNDMENTS

Classification of waste impoundments, as described below, is based upon the potential for environmental threat, as determined by evaluating the waste stream characteristics and the site setting of the facility. For purposes of this Section 9, waste impoundments are classified without regard to the engineering or operational controls that may already exist or be proposed at the facility. This Section 9 includes two classes of waste impoundments, defined according to potential impact to ground water.

(A) **Type A Waste Impoundment**

(1) A waste impoundment is considered Type A if it meets one of the following criteria:

(a) Liquid captured from the underdrain system of the waste impoundment has constituent concentrations less than the standards set forth in Regulation 41 (5 CCR 1002-41) Basic Standards for Ground Water (BSGWs) for all constituents relevant to the impoundment's waste stream(s) (if there are multiple waste impoundments at a facility handling the same waste stream and not all waste impoundments are equipped with an underdrain system, then underdrain samples from those impoundments having underdrains may be representative of leaching potential from those not having an underdrain system); or

(b) The constituent concentrations in the liquid fraction of the sludge managed in the waste impoundment is less than the standards set forth in the BSGWs for all constituents relevant to the impoundment's waste stream(s); or

(c) TCLP or SPLP data on the solid fraction of the sludge shows concentrations in the leachate extract to be below standards set forth is the BSGWs for all constituents relevant to the impoundment's waste stream(s).

(2) If insufficient information is available to satisfy the criteria in Section 9.1.6(A)(1), and the concentrations in the influent to the waste impoundment are less than the BSGWs for all constituents, as determined using a Department-approved sampling plan to make sure the sampling results are representative of impoundment conditions given the potential variability in the influent waste stream, the impoundment can still be classified as a Type A impoundment.

(3) Despite failing to meet one of the criteria in 9.1.6(A)(1)or (2), if the facility is able to demonstrate, based on evaluation of waste characteristics and site setting and not considering impoundment design or operations, that there is no reasonable potential to exceed BSGWs at the point of compliance as defined in Section 1.2 of the Solid Waste Regulations, the impoundment can still be classified as a Type A impoundment.

(4) A demonstration that an impoundment meets one or more of the criteria in this section and should be classified as a Type A impoundment is subject to Department approval per Section 9.1.8.

(B) **Type B Waste Impoundment**

Type B waste impoundments pose risk of adverse impact to ground water, based on the waste type, site setting. Any facility not satisfying the Type A criteria above or not otherwise exempt in Section 9.1.2 is a Type B waste impoundment.

(C) The impoundment classification may be subject to reclassification based on a significant change to the treatment process delivering waste to an impoundment that alters the potential of an impoundment at the facility to impact ground water or cause exposure to individuals in proximity to the impoundment.

9.1.7. COMPLIANCE SCHEDULE

The following compliance schedules apply to certain waste impoundments:

(A) Operators of waste impoundments receiving sludge from the following types of treatment must submit, within nine (9) months of the effective date of this Section 9, either an engineering design and operation plan for a Type B waste impoundment consistent with Section 9.3, or a Demonstration Plan consistent with Section 9.1.8(B) showing that the facility can qualify as Type A on the basis of favorable site hydrogeology:

(1) reverse osmosis,

(2) ion exchange, and

(3) iron filtration.

(B) With the exception of impoundments subject to Section 9.1.2(B), 9.1.7(A) and 9.1.7(C), all other waste impoundments that are not pre-classified must follow the process and schedules outlined in Section 9.1.8 and 9.1.9 below and the requirements of Section 9.2 and 9.3.

(C) Operators of waste impoundments that will be closed and taken out of service consistent with the timelines established in the Clean Air, Clean Jobs Act (HB10-1365) for closure or transition of an electric generating unit must submit, within 12 months of the effective date of this Section 9, a written notice to the Department containing the schedule for planned impoundment closure. These operators must submit, within 24 months of the effective date of this Section 9, a closure plan addressing the applicable provisions of Section 9.3.4(F) and 9.3.6.

(D) Alternative implementation schedules may be proposed to the Department and approved as part of a site-specific closure plan.

9.1.8 INVENTORY AND CLASSIFICATION OF IMPOUNDMENTS AT EXISTING FACILITIES

This section applies to existing facilities, except those that are preclassified under Section 9.1.3 and those listed in Section 9.1.7(A).

Existing facilities are required to inventory the impoundments at their facility and propose a classification for each impoundment subject to Department approval. New facilities not receiving waste prior to the effective date of this Section 9 must propose waste impoundment classifications as part of their certificate of designation application, or as part of their engineering design and operation plan submittal, as appropriate.

(A) Inventory and Preliminary Classification Report: Existing facilities subject to this Section 9 must submit an Inventory and Preliminary Classification Report (IPCR) to the Department for review and approval. Existing facilities shall submit the IPCR to the Department within twelve (12) months of the effective date of this Section 9. Water treatment plants other than those listed in Section 9.1.7(A) serving fewer than 10,000 people may petition to take up to twenty-four (24) months to submit the IPCR.

The IPCR shall include a brief description of all waste impoundments identified at the facility. In addition, for each waste impoundment having sufficient information readily available in order to classify the impoundment, the IPCR should propose a preliminary classification according to the Type A or Type B categories described above. For waste impoundments not having sufficient information on which to propose a preliminary classification, the IPCR will state that fact. In cases of insufficient information, the facility must submit a Demonstration Plan pursuant to Section 9.1.8(B) below after receiving a written determination on the IPCR from the Department.

For each waste impoundment that the facility has attempted to classify, the Department will determine whether the information provided in support of the proposed classification is adequate. This written determination will constitute a final agency action subject to appeal. Facilities obtaining an approved IPCR that was successful in classifying all waste impoundments at the facility may skip 9.1.8(B) below and proceed to development of an engineering design and operation report, if necessary.

(B) Demonstration Plan: Existing facilities without sufficient readily available information with which to classify their waste impoundments in the IPCR must develop a Demonstration Plan. The purpose of the Demonstration Plan is to obtain further information in order to classify one or more waste impoundments at a facility. The facility may request a meeting with the Department prior to submission of the Demonstration Plan. Within twelve (12) months of the date of the Department's written determination on the IPCR, facilities shall submit the Demonstration Plan for Department review and approval. Water treatment plants other than those listed in Section 9.1.7(A) serving fewer than 10,000 people may petition the Department for an additional twelve (12) months to complete the Demonstration Plan.

(1) The demonstration plan shall include a scope of work and schedule for implementation, and may include any of the following as necessary to complete classification of each impoundment:

(a) Operational history of the waste impoundment;

(b) Chemical characteristics of the waste stream(s) disposed, managed, stored, treated, or processed in the waste impoundment;

(c) Evaluation of the site setting and, through modeling or other appropriate means approved by the Department, evaluate the constituent concentrations relevant to the waste streams received in the impoundment that may occur at the point(s) of compliance without considering existing engineering or operational controls;

(d) Maps and plans, drawn to a commonly recognized engineering scale, that show the following:

i. The location and depth of cut or fill for liners;

ii. The location, dimensions and grades of all surface water control structures, and/or ground water containment structures, if applicable;

iii. The location and dimensions of all surface water containment structures, including those designed to impound contaminated runoff, sludge, or liquids for treatment;

iv. The spatial distribution of engineering, geologic and hydrologic data, and relationship to the proposed facility and each individual impoundment unit;

v. The location of all proposed monitoring points for surface water and ground water quality;

(e) The design details of the impoundment including size and total volume at capacity;

(f) Sampling of the uppermost aquifer at the point of compliance, as defined in Section 1.2 of these Solid Waste Regulations, for those constituents reasonably expected based on current and historical operations and activities at the facility and for which there is a BSGW. Appendix B of these Solid Waste Regulations may be used to establish background levels for constituents.

(g) The owner or operator of the facility must implement the demonstration plan according to the approved schedule.

(C) The facility shall provide a Demonstration Report summarizing the findings of the Demonstration Plan to the Department for review and approval within three (3) months of completing implementation of the Demonstration Plan.

9.1.9 TIMING OF SUBMITTAL OF AN ENGINEERING DESIGN AND OPERATION PLAN

(A) Within twelve (12) months of the Division's formal determination approving the proposed IPCR, or within twelve (12) months of the Division's formal determination approving the Demonstration Report in the case of those impoundments for which a Demonstration Report is required, facilities having Type B waste impoundments shall submit a CD application including an EDOP, or for CD-exempt facilities, an EDOP that satisfies the requirements of Section 9.3. The CD application will be reviewed by the Department and approved by the local governing authority. CD-exempt facilities shall submit the EDOP to the Department for approval. The EDOP shall include schedules for implementing and performing the identified activities. For an owner or operator with multiple impoundments, the schedule for implementation may include a prioritization of the impoundments based upon risk, operational constraints and logistical considerations prevailing at the facility. The facility must ensure that all Type B waste impoundments are included in the EDOP. For facilities with both Type A and Type B impoundments, requirements for Type A waste impoundments may be integrated into the EDOP. The facility shall implement the approved EDOP in accordance with the approved schedules.

(B) New waste impoundments constructed after the effective date of this Section 9 must include the waste impoundment evaluation and demonstration required by Section 9.1.8(B) as part of their CD application, or as part of their EDOP submittal if the facility is managing its own waste in its own impoundments.

(C) Alternative implementation schedules may be proposed to the Department and approved on a site-specific basis.

9.2 REQUIREMENTS FOR TYPE A WASTE IMPOUNDMENTS

9.2.1 DESIGN AND CONSTRUCTION

The following design criteria apply to a Type A waste impoundment.

(A) **Access control**: The owner or operator shall control public access, prevent unauthorized access, provide for site security both during and after business hours, and prevent illegal dumping of wastes. Effective artificial or natural barriers may be used in lieu of fencing.

(B) **Stormwater control**: Each waste impoundment shall be designed, constructed and maintained to provide: (1) run-on control and diversion structures to prevent flow into the unit from a 25-year, 24-hour storm, and (2) a run-off control system to collect runoff from a 25-year, 24-hour storm and control run-off from a 100-year, 24-hour storm. Precipitation that cannot be diverted from the impoundment, and therefore comes in contact with impounded waste, shall be managed as solid waste. Each impoundment shall be designed, constructed and maintained to prevent damage to the containment structure from erosion.

9.2.2 FINANCIAL ASSURANCE:

The owner or operator of a Type A waste impoundment shall establish and maintain financial assurance in accordance with Section 4 of these Solid Waste Regulations.

9.2.3 SELF-CERTIFICATION

The Department, as deemed necessary, may utilize self-certification checklists in conjunction with their inspections. Any facility that receives a self-certification checklist from the Department must complete the checklist and return it to the Department. Submission of a completed self-certification checklist will substitute for submission of an Annual Report, as required in Section 9.2.4 below.

9.2.4 ANNUAL REPORT: By March 1 of each year, the owner or operator of a Type A waste impoundment shall submit an annual report documenting:

(A) the annual volume of waste removed from the impoundment in the previous calendar year;

(B) the disposition of waste removed;

(C) a description of any unauthorized release that occurred;

(D) a description of corrective actions taken to address any such unauthorized release; and

(E) an attestation from the facility that the process generating the waste has not significantly changed and continues to support the original classification.

Submittal of a self-certification checklist for a particular year will substitute for that year's annual report.

9.2.5 CLOSURE: The owner or operator of each Type A waste impoundment shall develop a closure plan and submit it for Department approval. The closure plan must present sufficient detail to support the closure cost estimates required in Sections 4 and 9.2.2 above and to enable the Department to evaluate the adequacy of financial assurance. For some Type A impoundments, the scope of the closure plan will be limited to sludge and impacted soil removal, disposal and verification sampling to ensure residual contamination is below acceptable levels in soil and ground water.

(A) **Closure Certification**: A closure certification report is required to be submitted within sixty (60) calendar days of completion of closure activities which documents all the requirements and conditions of the closure plan have been achieved. The Report must be signed and sealed by a Colorado registered professional engineer and is subject to review and approval by the Department.

9.2.6 POST-CLOSURE CARE: The owner or operator of each Type A waste impoundment whose closure activities result in waste disposed in place as a landfill or with levels of residual contamination that exceed unrestricted use must implement a post-closure care plan in accordance with the criteria identified Section 9.3.6.

9.3 REQUIREMENTS FOR TYPE B WASTE IMPOUNDMENTS

The design and operation of Type B waste impoundments must not cause exceedances of BSGWs/App. B at the point(s) of compliance. The extent of engineering and operational controls necessary to satisfy this requirement will vary considerably from facility to facility depending on the potential for groundwater impact. Engineering Design and Operation Plans (EDOP; see Section 9.3.4) have the flexibility to include only the requirements applicable to the unique combination of site setting and waste characteristics at an impoundment. Type B waste impoundment facilities may request alternative, equally protective measures.

Attaining the BSGW/App. B at the point of compliance may be achieved through a prescriptive liner or performance-based alternative design. Performance-based design allows existing facilities to use existing liner systems if those systems can be successfully demonstrated to reasonably ensure groundwater protection, given the unique interplay of waste characteristics, site construction and site setting. New facilities may employ performance-based design to show that a liner system other than a prescriptive liner will be sufficient to meet the design objective of attaining BSGWs/App. B at the point(s) of compliance.

9.3.1 FACILITY DESIGN REQUIREMENTS

Type B Waste Impoundments shall comply with the following.

(A) **Review by Professional Engineer**: All engineered features of the facility design shall be reviewed and sealed by a Colorado registered professional engineer.

(B) **Liner Design Requirements**

Waste impoundment design and operation can utilize either prescriptive or performance-based alternative liner designs that, in conjunction with waste characteristics and site setting, ensures attaining BSGWs/App. B at the point(s) of compliance, taking into consideration background concentrations. It is recommended that the liner design also consider the constructability, operation and maintenance of the waste impoundment. This will facilitate selecting the design approach and optimizing the design specific elements and features.

Each waste impoundment shall be lined with a composite liner, a double liner system, or an alternate liner system of performance based alternative design. In addition, the facility design must include leak detection monitoring. The owner or operator of the facility shall demonstrate to the Department that the design developed for the facility will comply with this Section 9 and Sections 1 and 2 of these Solid Waste Regulations, and with BSGW/App. B.

(1) **Composite Liner System**: A composite liner shall consist of an upper and lower component.

(a) The upper component shall consist of a minimum 60-mil high-density polyethylene (HDPE) liner and shall be installed in direct and uniform contact with the lower component.

(b) The lower component shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity less than or equal to 1×10^{-7} cm/sec.

(2) **Double liner system**: A double liner system shall consist of an upper liner and a lower liner separated by a drainage layer.

(a) The upper liner shall consist of a minimum 60-mil HDPE liner and shall be installed in direct contact with the underlying underdrain material.

(b) The drainage layer contains transmissive material such as sand, gravel or a synthetic drainage blanket, and conveys liquid to a sump from which it can be extracted. This type of layer incorporates leak detection capability directly into the design, and may warrant a smaller scale groundwater monitoring program, subject to Department approval.

(c) The lower liner shall consist of a minimum 60-mil HDPE liner and shall be installed in direct contact with the underlying prepared soil.

(3) **Performance-Based Alternative liner designs**: Alternative liner designs, including single liner systems, entailing liner designs that, in conjunction with waste characteristics and site setting, ensure that BSGWs/App. B can be met at points of compliance, may be approved by the Department based on a demonstration of the alternate liner design's performance, the waste type and site specific technical information.

(C) **Leak Detection Monitoring**: Owners/Operators must include leak detection monitoring consistent with the liner design specific to that impoundment.

(1) Single liner and composite liner systems must incorporate one or more of the following based on the evaluation above:

(a) Vadose Zone Monitoring (wet/dry wells);

(b) Resistivity net monitoring;

(c) Downgradient impoundment edge ground water monitoring; or

(d) Another equivalently protective monitoring system as approved by the Department.

(2) In a double liner system, the leak detection system may be incorporated into the interstitial drainage layer. If this is done, sampling of leak detection liquids must be performed immediately upon discovery. If the leak detection system is not incorporated into the interstitial drainage layer, the requirements of Section 9.3.1(C)(1) must be met.

(D) **Fluid Level Measurement**: Maximum liquid level in the waste impoundments shall be capable of being measured at any time or continuously so that each impoundment has a minimum of two (2) feet of freeboard (or an alternate amount of freeboard as approved by the Department), measured from the lowest elevation berm of a specific impoundment to the upper surface of the impounded waste. Fluid level measurement points for each impoundment shall be established, and continuously maintained.

(E) **Access Control**: Owners and Operators shall control public access and prevent unauthorized access, provide for site security both during and after business hours, and prevent illegal dumping of wastes. Effective artificial or natural barriers may be used in lieu of fencing.

(F) **Stormwater Control**: Each waste impoundment shall be designed, constructed and maintained to provide: (1) run-on control and diversion structures to prevent flow into the unit from a 25-year, 24-hour storm, and (2) a run-off control system to collect runoff from a 25-year, 24-hour storm and control run-off from a 100-year, 24-hour storm. Precipitation that cannot be diverted from the impoundment, and therefore comes in contact with impounded waste, shall be managed as solid waste. Each impoundment shall be designed, constructed and maintained to prevent damage to the containment structure from erosion.

(G) **Embankment Durability**: Embankments shall be designed and maintained to minimize erosion and to withstand deterioration caused by the impounded waste such that the integrity of the impoundment is maintained.

(H) **Ground Water Monitoring System**: The ground water monitoring system must comply with each requirement in Appendix B. Except as otherwise noted in this Section 9, monitoring parameters must be established based on the hydrogeologic data related to the site, background concentrations in ground water, the type of waste stream(s) accepted at the facility and waste characterization analyses performed on incoming wastes. Waste impoundments equipped with leak detection capability may have conditional groundwater monitoring requirements that are only triggered if and when a leak is detected.

9.3.2 FACILITY CONSTRUCTION REQUIREMENTS

(A) **Construction**: Facilities with Type B impoundments must implement their approved quality assurance and quality control plan (QA/QC) during construction of all engineered structures and appurtenances. The QA/QC Plan must be reviewed and approved by the Department prior to commencing construction of any waste management features at the facility.

Note: The Department has guidance on construction quality assurance and as-built documentation on the Department's website, http://www.cdphe.state.co.us/hm/sw/swpubs.htm.

(B) **Construction Certification Report**: The owner or operator of a new Type B waste impoundment shall submit a construction certification report to the Department for approval at least ninety (90) calendar days prior to the commencement of waste acceptance into the impoundment. For existing facilities, the facility may submit the report and resume waste disposal operations. However, if a problem comes to light during Department review and prior to approval of the construction certification report, a compliance schedule will have to be developed for implementation of any corrective actions needed.

The construction certification report shall certify that the construction has been completed in accordance with the facility's approved EDOP and approved QA/QC Plan. The construction certification report shall be signed and sealed by a Colorado registered professional engineer approved by the Department prior to the acceptance of waste. Construction certification reports shall be developed, approved and implemented for all engineered structures and ancillary equipment used to manage solid waste at the facility.

(C) **Synthetic Liners**: Synthetic liners shall be installed according to the manufacturer's instructions, which shall be submitted as part of the facility's EDOP.

(D) **Testing**: The construction will be tested and evaluated using quality control and quality assurance measures and methods specified in the facility's approved QA/QC Plan as part of the facility's EDOP.

(E) **Liner Protection**: During construction and prior to the addition of liquid wastes, liner systems shall be protected from erosion, desiccation, drying, degradation from ultraviolet radiation or other damage.

9.3.3 FACILITY OPERATION REQUIREMENTS

The owners or operator shall operate a Type B Waste Impoundment in accordance with the approved EDOP.

(A) **Ground water Monitoring**: The owner or operator shall conduct groundwater monitoring in accordance with the approved ground water monitoring plan which is part of the facility's EDOP.

(B) **Surface Water Monitoring**: The owner or operator shall conduct surface water monitoring, including monitoring of seeps, where seepage has been detected or other releases have been identified.

(C) **Fluid Level Measurement**: The owner or operator shall conduct fluid level and freeboard level measurement for each impoundment in accordance with the approved EDOP.

(D) **Contingencies**: The owner or operator shall implement and maintain the approved contingency plan which is part of the facility's EDOP. It will be implemented in the following situations: 1) an unplanned release from a waste impoundment, 2) leachate observed in the leak detection system for any waste impoundment outside of the normal or design range, and/or 3) any condition of noncompliance necessitating corrective action at any waste impoundment.

(1) The owner or operator shall notify the Department within twenty-four (24) hours of any identified release from a waste impoundment or ancillary equipment or any incident requiring implementation of the Contingency Plan. Within seven (7) calendar days of the incident, the owner or operator shall provide written notification outlining immediate actions taken.

(2) A detailed written assessment of the impact of leakage, repair completion and verification, and the need for additional monitoring and proposed corrective action shall be submitted by the owner/operator within forty five (45) calendar days to the Department. Repairs affecting an engineered feature at the facility must be certified by a Colorado registered professional engineer in accordance with these Regulations.

(E) **Waste Impoundment Inspections**: The owner or operator of the facility shall implement a periodic impoundment inspection program which will be described in the facility's EDOP. The inspection provisions shall cover all waste treatment, disposal, containment and storage features at each waste impoundment. At a minimum, these inspections shall examine ground movement, cracks, erosion, leaks, equipment connections, influent and effluent locations, rodent burrows, vegetation growing on a liner system, damage to ancillary equipment, spills, detection of liquids in sumps, fires or explosions, or other events or problems which could affect the operation of the facility or jeopardize the integrity of an impoundment. Leak detection and collection systems shall also be inspected weekly, or at the frequency established in the approved EDOP, for the presence of any liquids. If liquids are detected in quantities exceeding the design leakage rate, samples shall be taken and analyzed immediately, and a determination made as to the source of the liquid in the leak collection system. Other aspects of the waste containment system, including ancillary equipment, shall be inspected on a periodic basis as well.

(F) **Waste Characterization For Impoundments Accepting Only Wastes Generated On-site**: Waste impoundments accepting only wastes generated on-site shall initially profile each waste stream entering the impoundments and then update the profile as necessary to account for significant changes to the waste generation process. Existing facilities may use the Demonstration Report to establish the initial waste profile.

(G) **Waste Characterization For Impoundments Accepting Wastes From Third Parties**: If a facility receives wastes generated by third parties, the owner or operator of the facility shall implement its approved waste characterization plan which is part of the facility's EDOP to ensure that only approved waste is disposed of at the facility and to ensure that no hazardous waste is received at the facility. For any facility, the disposal of waste streams different from those originally approved shall constitute a significant change in operation and require an approval by the Department prior to acceptance at the facility. An amendment to the facility's EDOP or certificate of designation may be required.

(1) The owner or operator of each waste impoundment facility shall initially profile and then conduct annual testing on each waste stream entering the impoundments to demonstrate conformance with the original analyses. Each facility must also ensure that solid waste generators using the facility notify the facility when there has been a change in their processes or waste composition.

(2) The owner or operator of each waste impoundment facility shall analyze at least one sample of the contents of each impoundment annually for the suite of reasonably expected constituents included in Appendix II of the Solid Waste Regulations. Such analysis shall be performed using appropriate methods to provide an accurate representation of constituents and concentration levels found in the waste. If the impounded wastes are subject to stratification, a separate sample shall be taken from each representative level, including settled sludge and oil or other surface accumulation. Analysis of such sampling results will be submitted to the Department within 30 days of when they become available to the facility, along with a proposal of the suite of analytes to be analyzed on an annual basis. The facility will annually submit results of sampling for the suite of approved analytes.

(3) Annual testing of unannounced grab samples shall be taken from random vehicles entering the facility and analyses conducted for the original or approved amended list of parameters. If any waste is found to differ from the original analysis, the Department shall be notified in writing within seven (7) calendar days, and a request to modify the design and operation plan submitted to the Department for review and approval prior to continuing acceptance of the identified waste stream.

(4) Solid waste disposal facilities shall not receive hazardous waste and will conduct waste profiling in accordance their approved waste characterization plan.

(5) A facility may propose alternative waste characterization methods to those presented in Sections 9.3.3(G)(1) through (G)(4).

(H) **Personnel Training Plan**: The facility shall implement the approved personnel training plan.

(I) **Commingling of Waste**: Incompatible wastes shall not be commingled. The disposal of waste streams different from those originally approved shall constitute a significant change in operation and require an approval by the Department prior to acceptance at the facility. An amendment to the facility's EDOP or CD may be required.

(J) **Financial Assurance**: The owner or operator shall maintain financial assurance of an adequate amount to cover closure and post-closure care costs in accordance with Section 4 of these Solid Waste Regulations.

9.3.4 ENGINEERING DESIGN AND OPERATIONS PLAN

The owner or operator of each Type B waste impoundment shall submit an engineering design and operation plan (EDOP) to the Department for review and approval, per the schedule in Section 9.1.9 for existing waste impoundments, and prior to commencing impoundment construction, storage, treatment or disposal operations for new impoundments. The EDOP shall describe how the facility will comply with all applicable requirements in these Solid Waste Regulations. Facilities may use existing general, design, construction and operating documentation to satisfy these requirements.

The EDOP shall include the following subject areas, as appropriate. Given the diverse nature of waste impoundment facilities, not all of the following information will pertain to every facility.

(A) **General Information**:

(1) Owner and Operator mailing address, county and legal description of the facility with waste impoundments;

(2) Map of facility property;

(3) Type of treatment, disposal, storage and containment features, monitoring and operational practices to be used at the facility;

(4) Discussion of facility's service area, including transportation corridors and surrounding access;

(5) The names, qualifications and addresses of the persons operating the facility and having the authority to take corrective action in the event of noncompliance;

(6) The hours and days of operation;

(7) A listing of the waste stream types to be approved for routine receipt and anticipated volumes in barrels or gallons/per day of wastes to be received;

(8) The expected life of the site;

(9) The number and job descriptions of personnel projected to be employed in waste impoundment operations at the facility when operating;

(10) Type of equipment projected to be used in waste impoundment operations at the facility;

(11) The size (surface area and volume) and types of impoundments or processing areas to be constructed;

(12) Provisions to minimize nuisance conditions on-site and prevent nuisance conditions from occurring off-site;

(13) Provisions for fire protection, including the amounts and sources of on-site water available to be used for fire suppression; and

(14) Facility inspections, including the frequency of inspections by the operator and associated written documentation of impoundment and ancillary equipment conditions.

(B) **Site Investigation**

(1) **Geologic Data**: The EDOP shall include, as applicable, the following geologic data:

(a) Types and regional thickness of unconsolidated soils and materials;

(b) Types and regional thickness of consolidated bedrock materials; and

(c) Regional and local geologic information, including but not limited to bedrock strike and dip, fracture patterns, slope stability, faulting, folding, rockfall, landslides, and subsidence or erosion potential that may affect the design and operation of the facility for solid wastes disposal.

(2) **Hydrologic data.** The EDOP shall include, as applicable, the following hydrological data:

(a) Lakes, rivers, streams, springs, or bogs, on-site and within two (2) miles of the site boundary;

(b) Depth to and thickness of perched ground water zones and uppermost aquifers;

(c) Ground water wells within one (1) mile of the point of compliance, including well depth, depth to water, screened intervals, yields and the aquifers tapped, if such information is available in the public records of the Division of Water Resources in the Department of Natural Resources;

(d) Hydrologic properties of the perched zones and uppermost aquifer, including flow directions, flow rates, porosity, coefficient of storage, permeability, and potentiometric surface;

(e) Site location in relation to the base floodplain of nearby drainages;

(f) The separation between the wastes to be impounded and the uppermost water-bearing zone, perched or otherwise;

(g) An evaluation of the potential for impacts to existing surface water and ground water quality from each of the proposed impoundment units, if more than one, or the facility if only one unit exists;

(h) The existing quality of ground water beneath the proposed facility;

(i) Any other associated information related to the time of travel from the midpoint of each cell to the point of compliance;

(j) Climatic information;

(k) The estimated volume, physical and chemical characteristics of the waste;

(l) The distance ground water beneath the site would flow during the facility's operating life and post-closure care period; and

(m) The distance to existing domestic wells or springs.

(C) **Facility Design**: The EDOP shall include specific design details for each waste impoundment and all associated structures and ancillary equipment used to store, treat or dispose of solid waste.

(1) **Engineering Data.** The EDOP shall contain, as applicable, the following engineering data:

(a) The types and quantity of material(s) that will be used in the different components of the liner system;

(b) Liner design, liner materials and specifications, liner installation requirements and procedures, and liner QA/QC procedures after installation;

(c) Maps and plans, drawn to a common recognized engineering scale, that show the following;

(1) The location and depth of cut or fill for liners;

(2) The location, dimensions and grades of all surface water control structures;

(3) The location and dimensions of all surface water and groundwater containment structures, including those designed to impound contaminated runoff, sludge, or liquids for treatment;

(4) The spatial distribution of engineering, geologic and hydrologic data, and relationship to the proposed facility and each individual impoundment unit;

(5) The location of all proposed facility structures and access roads;

(6) The location of all proposed monitoring points for surface water and ground water quality;

(7) The final contours and grades of the reclaimed site after closure;

(8) The location of fencing or other access control features to be placed on-site;

(9) The location of each proposed phase of development; and

(10) The design details of the impoundment including size and total volume at capacity.

(d) All designated ancillary equipment associated with each impoundment.

(2) **Demonstration of Performance**: The EDOP shall reasonably demonstrate that the liner system, in combination with waste characteristics and site setting, will result in constituent concentrations at the point of compliance that are below BSGWs/App. B.

(3) **Leak Detection Monitoring**: If applicable, the EDOP for Type B impoundments shall describe the leak detection monitoring system installed at each impoundment.

(4) **Monitoring and Measurement Systems**: The EDOP shall include design specifications for all proposed monitoring points for surface water and groundwater quality and the monitoring system used to make volume and freeboard determinations. For waste impoundment facilities or units equipped with freeboard monitoring, the design details shall be provided in the Report.

(5) **Access Control**: The EDOP shall describe the access controls at the facility.

(6) **Stormwater Control**: The EDOP shall provide design details for the stormwater control features.

(7) **Embankment Durability**: The EDOP shall describe how each Type B waste impoundment shall be maintained.

(8) **Ground water Monitoring System**: The EDOP shall include design details for the ground water monitoring system and include a plan describing how the facility will comply with each requirement in Appendix B of these Solid Waste Regulations.

(D) **Construction**: The EDOP for any new waste impoundments, or existing waste impoundments requiring upgrade of engineered features in order to comply with this Section 9, must include a quality assurance and quality control plan (QA/QC) for all engineered structures and appurtenances.

(E) **Operations**:

(1) The EDOP shall include specific operational details for each waste impoundment and all associated structures or ancillary equipment used to store, treat or dispose of solid waste. The EDOP shall demonstrate how the facility will comply with all regulatory requirements.

(2) **Sitewide Monitoring Plan**: The EDOP shall include a sitewide monitoring plan, inclusive of ground water monitoring, surface water monitoring, leak detection monitoring, fluid-level monitoring, and inspections.

(3) **Contingency Plan**: The EDOP shall include a contingency plan for the facility.

(4) **Waste Characterization Plan**: Each facility receiving waste from off-site shall have as part of its EDOP a Waste Characterization Plan (WCP). The WCP shall describe how procedures employed at the facility to demonstrate compliance with Section 2.1.2 of these Solid Waste Regulations and to ensure that only approved wastes are disposed of at the facility.

(5) **Personnel Training Plan**: The EDOP shall include a personnel training plan that includes the following provisions:

(a) Annual training on the facility's EDOP , all attachments to the plan and all documents referenced in the plan that are relevant to operational compliance, and

(b) Annual training in the recognition and exclusion of hazardous and prohibited wastes.

(F) **Closure Plan**: The EDOP shall include a closure plan that describes the steps necessary to close each impoundment at any point during its active life and at the end of the facility's active life. The facility may either: 1) close the waste in place as a solid waste landfill in accordance with these Solid Waste Regulations, or 2) remove all solid waste and residual contamination to meet unrestricted use concentrations. Option 2, also known as "clean closure," eliminates the need for post-closure care. Both Option 1 and Option 2 require the owner or operator of a waste impoundment to develop a closure plan.

(1) The closure plan shall include the following information consistent with Section 9.3.6:

(a) Provisions for removal of all solid waste at the site and decontamination of all ancillary equipment at the site, or closure of the waste impoundment with waste in place as a landfill;

(b) Provisions for removing all liquid wastes from the impoundments;

(c) Proposed plans and procedures for sampling and testing soil and ground water at the site;

(d) Provisions for sampling and testing of residual materials, such as sludge and soil, and provisions for final disposal.

(e) Provisions for a Background Study which must include, at a minimum, the following:

(i) Sampling Plan;

(ii) Analysis Plan;

(iii) Data Evaluation Plan;

(iv) Determination of relevant background concentrations;

(f) General description of the site post-closure, including:

(i) the final property contours, material and procedures to be used to fill the impoundments;

(ii) A description of final soil placement and establishment of plant life;

(iii) A description of anticipated land use; and

(iv) A schedule for completing all activities necessary to satisfy the closure criteria of this section.

(g) An analysis of whether an environmental covenant will be necessary following closure.

(h) An analysis of whether post-closure care will be necessary and, if so, a post-closure plan consistent with the requirements of Section 9.3.7.

(i) Cost estimates for closure and post-closure and proof of financial assurance equal to or greater than those cost estimates consistent with Section 4 of the solid Waste Regulations.

9.3.5 RECORDKEEPING AND REPORTING REQUIREMENTS

Not all of the requirements below will apply to facilities disposing of or managing their own waste on their own property. Such facilities may note in their EDOP any of the requirements below that are not applicable.

(A) **Record Availability**: For facilities with waste impoundments, all records required by Section 9.3.5, shall be maintained on-site for a minimum of three (3) years unless otherwise approved by the Department and shall be available for inspection by representatives of the Department during regular business hours.

(B) **Incoming Shipments**: For facilities receiving third party wastes, each shipment of solid waste being disposed of in a waste impoundment shall be registered, with the following information entered on a single receipt or manifest:

(1) Date and time;

(2) Receiving impoundment identification;

(3) Quantity;

(4) Type of waste;

(5) Location produced;

(6) Waste generator;

(7) Hauler and truck number; and

(8) Driver's name and signature.

(C) **Monthly Summaries**: All facilities shall maintain monthly summaries, including the total volume of each waste stream managed or disposed in each waste impoundment.

(D) **Annual Report**: All facilities shall submit an annual report by March 1st of each year to the Department. The annual report shall include:

(1) the total volume received of each waste type during the previous calendar year;

(2) the waste removed from each impoundment during the previous calendar year, not including interbasin transfers, with location details provided for final disposition of the waste;

(3) any unplanned releases from an impoundment unit at the facility during the previous calendar year; and

(4) for waste impoundments receiving third party wastes, documentation proving that no hazardous waste has been received (per Section 2.1.2) and random load screening results.

(5) an annual ground water monitoring report, where one is required in the EDOP.

(E) **Routine Monitoring**: All facilities with Type B waste impoundments shall maintain records of monitoring data including ground water monitoring data, fluid level monitoring data, equipment and impoundment inspection logsheets, and precipitation data.

(F) **Inspections**: Records shall be maintained by all facilities with Type B waste impoundments that fully document all inspections, fluid level measurements, damage, repairs and repair verifications to impoundments, the liner systems or ancillary equipment.

(G) **Reporting Requirements**:

For facilities receiving third party wastes, waste characterization results indicating excursions from the facility's approved plans, such as inadvertent receipt of unapproved wastes, shall trigger notification in writing to the Department within seven (7) calendar days after receipt of such results by the owner or operator.

The owner or operator of the facility shall notify the Department within 24 hours of conditions not in substantive compliance with the approved design and operations plan and/or any situation that could cause a violation of the approved operations plan (e.g. major precipitation events, fire, other examples of *force majeure*). The facility shall remedy the situation as soon as possible, implement contingency plans as appropriate, and notify the Department again following any corrective actions.

9.3.6 CLOSURE REQUIREMENTS

(A) Owners and Operators of Type B impoundments shall close the impoundments only in accordance with the approved Closure Plan in the facility's EDOP.

(B) Individual impoundments at a facility may be closed independently of closure of the entire facility.

(C) At least sixty (60) days in advance of the proposed closure date, the owner or operator of a facility receiving third party wastes open to the public must notify the Department and place signs of suitable size at the entrance to the site and facility.

(D) The owner or operator of the facility must complete closure activities of the facility in accordance with the closure plan and within one hundred eighty (180) calendar days following the final receipt of waste, or according to the implementation schedule in the approved closure plan.

(E) Following closure of an impoundment facility, the owner or operator shall work with the Department to place an Environmental Covenant on the former impoundment area in compliance with C.R.S. § 25-15-320 if waste is left in place as part of the closure or the site is not suitable for unrestricted use. If waste is left in place and/or the site is not suitable for unrestricted use, the owner or operator must comply with Section 9.3.7.

(F) **Closure Certification**: A closure certification report is required to be submitted within sixty (60) calendar days of completion of closure activities which documents all the requirements and conditions of the closure plan have been achieved. The Report must be signed and sealed by a Colorado registered professional engineer and is subject to review and approval by the Department.

9.3.7 POST-CLOSURE CARE AND MAINTENANCE REQUIREMENTS

(A) **Post-Closure Care Plan**: Within sixty (60) days of receiving an approved closure certification report for an impoundment with waste left in-place or with residual contamination such that the site is not suitable for unrestricted use, the owner or operator shall submit a Post-Closure Care Plan for Department review and approval that will include at least the following.

(1) Provisions to prevent nuisance conditions;

(2) Provisions to maintain the integrity and effectiveness of the final cover, should waste be closed in place, including making repairs to the cover and replanting vegetation as necessary;

(3) Provisions to monitor ground water and maintain the ground water monitoring system, if applicable;

(4) The name, address, and telephone number of the person or office to contact about the facility during the post-closure period;

(5) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the function of the cap and monitoring systems unless reviewed and approved by the Department; and

(6) Provisions to comply with the Environmental Covenant or Notice of Environmental Use Restriction.

(B) The owner or operator must implement the approved post-closure care plan in accordance with the approved schedule. This includes placing an Environmental Covenant or Notice of Environmental Use Restriction on the waste impoundment areas and any others areas with remaining contamination per Section 9.3.6(F).

(C) **Post-Closure Certification**: Following completion of the post-closure care period the owner or operator must submit a post-closure certification signed by an independent Colorado registered professional engineer for approval, verifying that post-closure care has been completed in accordance with the post-closure plan.

(D) **Post–Closure Duration**: Post-closure care must be conducted for a minimum of thirty (30) years. The length of the post-closure care period may be:

(1) Decreased by the Department if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment; or

(2) Increased by the Department if it is determined that the lengthened period is necessary to protect human health and the environment.

SECTION 10 WASTE TIRES

SECTION 10.1 - SCOPE and APPLICABILITY

10.1.1 PURPOSE

The purpose of this Section10 is to implement the provisions of sections 30-20-1401 through 30-20-1417, C.R.S.

10.1.2 APPLICABILITY

This section 10 applies to all persons, unless otherwise exempted, who generate, accumulate, store, transport, dispense, or process waste tires, used tires or tire-derived product. Section 10.11 applies to all persons who sell new motor vehicle or trailer tires. Persons managing waste tires pursuant to this section 10 are exempt from section 8 of these Regulations for their waste tire management activities, except for the beneficial use of waste tires. Persons managing waste tires pursuant to this section 10 who engage in other recycling activities are subject to section 8 of these Regulations for those activities.

10.1.3 EXEMPTIONS

(A) This Section 10 does not apply to:

(1) Operation, including by a local, state or federal government agency, of a vehicle that is primarily engaged in the collection and transportation of solid wastes other than waste tires;

(2) A person who only travels through the state with waste tires as part of interstate commerce and does not collect, deposit, transfer, store or dispose of any waste tires within this state;

(3) Transportation of products made from waste tires for sale or other distribution;

(4) Household Hazardous Waste roundup events, community cleanup events, and other one-time or occasional collection events where waste tires are accepted for drop-off by persons not engaged in commercial activity and where the waste tires are picked up by a registered Waste Tire Hauler and transported to the facility of a registered Waste Tire Hauler or Waste Tire Generator, Waste Tire Collection Facility, Waste Tire Processor, Waste Tire Monofill, approved beneficial user of whole waste tires, municipal or county-owned waste tire collection area, or municipal or privately owned solid waste landfill; at the conclusion of the event;

(5) The beneficial use of less than ten (10) waste tires. A person who beneficially uses ten (10) or more waste tires must:

(a) Comply with section 8.6 of these Regulations;

(b) Comply with section 10.3 if they transport their own waste tires,

(c) Comply with section 10.6 if they process waste tires at the facility, and

(d) Comply with section 10.8, if they store more than five hundred (500) waste tires at any one site at any one time.

(B) Owners/operators of Solid Waste Landfills, Transfer Stations, and Recycling Facilities that accumulate waste tires by separating them out of the solid waste streams are exempt from section 10.8 of these Regulations if they:

(1) Store less than five hundred (500) waste tires outdoors at their facility, and

(2) Store less than a total of one thousand five hundred (1,500) waste tires at their facility.

(C) Government entities that store waste tires as part of road-side cleanup activities are exempt from section 10.8 if they:

(1) Store less than 500 waste tires outdoors at their facility, and

(2) Store less than a total of one thousand five hundred (1,500) waste tires at their facility.

(D) A government entity that removes illegally disposed waste tires from the road-side is exempt from section 10.3 if the waste tires are disposed of or recycled in accordance with this section 10.

(E) Registered waste tire haulers, generators, monofills, processors and waste tire collection facilities who accept ten (10) or more unmanifested waste tires or ten (10) or more waste tires from unregistered waste tire haulers must submit to the Department within twenty (20) days from the end of the preceding month a Uniform Waste Tire Manifest(s) Form WT-2 for the receipt of unmanifested waste tires. The Uniform Waste Tire Manifest Form must contain the following information:

(1) Date(s) waste tires were accepted;

(2) The total amount of waste tires accepted;

(3) License plate number of unregistered waste tire hauler vehicle used to deliver waste tires;

(4) If available the name, address and telephone number of the person who delivered the waste tires.

(5) If possible, the source of the tires.

SECTION 10.2 - GENERAL PROVISIONS

10.2.1 COMPLIANCE WITH OTHER LAWS

Waste Tire Haulers, Waste Tire Generators, Waste Tire Processors, Mobile Waste Tire Processors, Waste Tire Collection Facilities, Waste Tire Monofills, End Users, and Beneficial Users must comply with all local, state, and federal laws, regulations, ordinances, and other requirements.

10.2.2 OPERATIONS COVERED BY MULTIPLE PARTS OF THIS SECTION 10

Waste Tire Generators, Waste Tire Haulers, Waste Tire Collection Facilities, Waste Tire Processors, Mobile Waste Tire Processors, Waste Tire Monofills, and End Users may perform activities that are regulated by multiple parts of this section 10. If so, these entities must register accordingly and comply with the requirements of all applicable parts of these regulations, which are not duplicative or overlapping.

10.2.3 LIMITATIONS ON THE DISPOSAL OF WASTE TIRES

(A) Except as specified in section 10.2.3(B) below, a person must dispose of waste tires only by delivery to a generator engaging in waste tire collection, to a waste tire processor, to a waste tire monofill, or to a waste tire collection facility. This prohibition on disposal also applies to waste tires that have been cut in half or otherwise modified but not processed into tire-derived product.

(B) If an individual not engaged in commercial waste tire activities is able to establish that due diligence has been conducted and no option for disposing of a waste tire as specified by section 10.2.3(A) is available, then the individual may dispose of the waste tire in a solid waste disposal site and facility or transfer station. To establish due diligence, an individual must (1) contact the local governing authority to determine whether local recycling options are available, (2) contact the Department to determine whether local recycling options are available, and (3) contact all waste tire generators, waste tire haulers, waste tire monofils, waste tire processors and waste tire collection facilities within fifty (50) miles to determine whether alternatives to final disposal exist. The Department has discretion to determine whether this due diligence requirement has been satisfied.

10.2.4 EXEMPTION FROM ANNUAL FEES IN SECTION 1.7.3

The annual fee requirement of section 1.7.3 of these Regulations does not apply to persons registered pursuant to sections 10.3, 10.4, 10.6, 10.7, 10.8, or 10.9 for their activities governed by these sections.

10.2.5 ENFORCEMENT

The Department may enforce this section 10 through its enforcement authorities, including those specified in sections 30-20-113 and 30-20-114, C.R.S.

SECTION 10.3 - STANDARDS FOR WASTE TIRE HAULERS

10.3.1 GENERAL

(A) Unless transported out of state, a person may only transport waste tires to the following types of facilities, sites and users in Colorado:

(1) A registered waste tire generator;

(2) A registered waste tire hauler;

(3) A registered waste tire collection facility;

(4) A registered waste tire monofill;

(5) An end user of whole waste tires in compliance with section 10.9 of these Regulations

(6) A registered waste tire processor;

(7) A municipal or county-owned waste tire collection area;

(8) A municipal or privately owned solid waste landfill in compliance with this section 10.2.3 (B); or

(9) A beneficial user of whole waste tires that has been approved by the Department.

(B) A person registered as a Waste Tire Hauler pursuant to section 10.3.3 of these Regulations may pick up waste tires from a person exempted from this section 10, who is not registered as a Waste Tire Generator, Waste Tire Hauler, Waste Tire Collection Facility, Waste Tire Processor, Mobile Waste Tire Processor, or Waste Tire Monofill, an illegal waste tire site or from a private property as long as the Waste Tire Hauler creates a manifest for the load of waste tires pursuant to Section 10.3.5 of these Regulations, and ensures delivery of the waste tires only to a facility listed in section 10.3.1(A) above.

(C) Waste Tire Haulers must within twenty-four (24) hours of identification notify the Solid Waste Program within the Colorado Department of Public Health and Environment in the event of a fire or other emergency involving waste tires. Within two (2) weeks of this notification, the facility must submit a written report describing the emergency to the Solid Waste Program. This report must describe the origins of the emergency, the actions that have been taken, actions that are currently being taken or are planned, results or anticipated results of these actions, and an approximate date of resolution of the issues generated by the emergency.

(D) A Waste Tire Hauler that is not also registered as a Waste Tire Generator, Waste Tire Collection Facility, Waste Tire Processor, or Waste Tire Monofill must not have on site:

(1) More than one thousand five hundred (1,500) waste tires at any one time; or

(2) A waste tire for more than three (3) days; or

(3) Waste tires outside the waste hauler’s vehicle or trailer.

10.3.2 REGISTRATION FOR WASTE TIRE HAULERS

(A) No person shall transport a load of ten (10) or more waste tires at one time unless he/she has registered with the Department by submitting an application for Certificate of Registration (Form WT-1 or WT-1H) to the Hazardous Materials and Waste Management Division of the Department and received a Certificate of Registration from the Department.

(B) An application for a Certificate of Registration as a Waste Tire Hauler must be submitted on Form WT-1 or WT-1H. The application must be delivered to the Department, electronically or by hard copy, and must include, at a minimum, the following information:

(1) The business name of the Waste Tire Hauler and any other names under which the Waste Tire Hauler may do business;

(2) The principal business address of the Waste Tire Hauler;

(3) A business telephone number(s) and email address;

(4) The name and address of the responsible officer of a corporate Waste Tire Hauler or the owner(s) of a Waste Tire Hauler operating a proprietorship or partnership;

(5) The signature and date of signature of the Waste Tire Hauler applicant; and

(6) The number of vehicles the Waste Tire Hauler uses to transport waste tires in Colorado.

(C) (1) The Department will issue a Certificate of Registration and corresponding decal(s) to a new applicant if the applicant has submitted an application to the Department containing all information required in section 10.3.2(B).

(2) The Department will issue a Certificate of Registration and corresponding decal(s) to a Waste Tire Hauler who is registered with the Department at the time of applying, if the applicant has submitted a timely application to the Department containing all information required in section 10.3.2(B) and has submitted an annual report containing all of the information required by section 10.3.5.

(D) The Certificate of Registration for a Waste Tire Hauler is valid from the date of issuance to April 15 of the year indicated on the Certificate of Registration.

(E) A Waste Tire Hauler must submit an updated application for a Certificate of Registration within fifteen (15) days after the Waste Tire Hauler purchases a new vehicle, rents or leases a vehicle, or operates a facility at a new location.

(F) A Waste Tire Hauler is not authorized to haul waste tires after the April 15 expiration date unless the Waste Tire Hauler has applied to renew the Waste Tire Hauler Certificate of Registration prior to expiration and has received a new Certificate of Registration as a Waste Tire Hauler from the Department and Waste Tire Hauler decals, pursuant to section 10.3.3 below.

(G) All Waste Tire Haulers who wish to continue hauling waste tires must submit application for renewal no later than March 1.

(H) A legible copy of the Certificate of Registration must be maintained and made available for inspection at the Waste Tire Hauler's principal place of business.

(I) A Waste Tire Hauler Certificate of Registration is not transferable by the Waste Tire Hauler to whom it was issued to any other person or entity.

(J) A Waste Tire Hauler who has previously filed an application for a Certificate of Registration as a Waste Tire Hauler (Form WT-1 or WT-1H) is required to notify the Department in writing whenever changes occur to the following:

(1) Ownership;

(2) Mailing address;

(3) Business name;

(4) Type of registration;

(5) Contact name;

(6) Phone number; or

(7) The Waste Tire Hauler is no longer hauling waste tires.

(K) The Department may cancel a Certificate of Registration of a person who no longer hauls waste tires.

10.3.3 WASTE TIRE HAULER DECALS

(A) No person shall transport a load of ten (10) or more waste tires in Colorado without having received a Waste Tire Hauler decal(s). An application for a Certificate of Registration submitted pursuant to section 10.3.2 above shall also serve as the application for a Waste Tire Hauler decal(s). A Waste Tire Hauler must submit an updated application for a Certificate of Registration within 15 days after the Waste Tire Hauler purchases a new vehicle, or rents or leases a vehicle.

(B) Waste Tire Haulers will receive Waste Tire Hauler decal(s) and temporary decals (if needed) for each vehicle from the Department with their Certificate of Registration. Each decal will have a unique number.

(C) Each Waste Tire Hauler vehicle decal will be valid until April 15 of the year indicated on the vehicle decal and will have a unique number. Prior to the expiration date, a Waste Tire Hauler must submit a new application for a Certificate of Registration pursuant to section 10.3.2 above.

(D) A Waste Tire Hauler decal must be affixed to the lower left hand corner of the windshield of each vehicle the Waste Tire Hauler owns, rents, leases and/or uses to transport waste tires or in some other manner so the decal is visible on vehicles that do not have a windshield

(E) A Waste Tire Hauler decal is not transferable by the Waste Tire Hauler to whom it was issued to any other person or entity and must not be used for any vehicle not listed by the Registered Waste Tire Hauler on its application for a Certificate of Registration as a Waste Tire Hauler.

(F) Commercial freight carriers must obtain a temporary decal from the registered Waste Tire Hauler who contracts with them. The temporary decals must be displayed on the lower left hand side of the windshield or in some other manner so the decal is visible on vehicles that do not have a windshield at all times when the vehicle is under contract for waste tire transportation. Upon termination of contract, the temporary decal must be returned within twenty-four (24) hours to the registered Waste Tire Hauler. Commercial freight carriers must comply with sections 10.3.1 and 10.3.4.

10.3.4 MANIFEST REQUIREMENTS FOR WASTE TIRE HAULERS

(A) No Waste Tire Hauler may accept waste tires for transportation without properly completing a paper or electronic manifest pursuant to section 10.3.4 of these Regulations unless they comply with 10.1.3 (E).

(B) Paper or electronic copies of manifests for all transport of waste tires accepted by a Waste Tire Hauler must be maintained on-site at the Waste Tire Hauler's principal business address as identified on the Certificate of Registration and available for inspection for three (3) years from the date of delivery.

(C) A Waste Tire Hauler must create a paper or electronic manifest for each load of waste tires. Such persons must use the Uniform Waste Tire Manifest Form WT-2, available at the Department's website. Each manifest will have a unique number. The completed Uniform Waste Tire Manifest must contain the following information:

(1) The name, address, telephone number, and Certificate of Registration number, if applicable, of the generator(s) or source(s) of the waste tires in the load;

(2) The quantity of waste tires picked up at each generator or source as measured by:

(a) The actual number of waste tires; or

(b) The weight of waste tires measured in tons;

(3) The name, address, telephone number and Certificate of Registration number of the Waste Tire Hauler and the Waste Tire Hauler decal number of the vehicle used to transport the waste tires and, if applicable, the name and United States Department of Transportation (USDOT) number of the contracted commercial freight carrier;

(4) The date(s) of transport;

(5) The name, address, telephone number and Certificate of Registration number and decal number of the destination facility to which the waste tires will be delivered;

(6) The signatures, under penalty of perjury, of each generator/source of the waste tires, the Waste Tire Hauler, the secondary Waste Tire Hauler (if any), and the facility that is the destination of the waste tires; and

(7) Whether the waste tires originated from an illegal waste tire site or from a private property.

(8) Whether the waste tires originated from an unregistered waste tire hauler and license plate number of unregistered waste tire hauler.

(D) Waste Tire Haulers must:

(1) Carry the paper or electronic Uniform Waste Tire Manifest of each load in the vehicle while hauling the waste tires described on the Manifest (the Manifest need not be displayed in the vehicle);

(2) Provide a copy of the paper or electronic Uniform Waste Tire Manifest for each load to the applicable waste tire generator/source of the waste tires within thirty (30) days of delivery to the destination facility;

(3) Provide a paper or electronic completed copy of the Uniform Waste Tire Manifest for each load to the destination facility when the hauler delivers the waste tires; and

(4) Make a copy of any paper or electronic Uniform Waste Tire Manifest available to the Department upon request.

10.3.5 ANNUAL REPORT

A Waste Tire Hauler must submit an annual report to the Department on the Commercial Waste Tire Hauler Annual Report Form (Form WT-4). This form may be obtained by contacting the Department or available at the Department's website.

(A) The report must account for the number of waste tires transported by the person during the previous calendar year (beginning January 1 and ending December 31). Waste tire quantities must be reported by actual count or by actual weight in tons.

(B) The annual report must be delivered to the Department, via certified mail, regular mail, facsimile, hand delivery, or electronically by March 1st of each year and must include the following:

(1) Quantity of waste tires collected by the Waste Tire Hauler from within Colorado for the applicable reporting period;

(2) Quantity of waste tires that are brought to Colorado locations by the Waste Tire Hauler from out-of-state sources during the applicable reporting period;

(3) Quantity of waste tires that are taken from Colorado locations by the Waste Tire Hauler to out-of-state destinations during the applicable reporting period;

(4) Quantity of waste tires identified as used tires;

(5) Final disposition of all the waste tires collected during the applicable reporting period by listing each waste tire collection facility, waste tire monofill, municipal or privately owned solid waste landfill, or end user or processor facility, beneficial users of waste tires and the total quantities of waste tires that the Waste Tire Hauler has delivered to each; and

(6) The total amount of waste tires accepted from a person exempted from section 10.

10.3.6 WASTE TIRE HAULER SELF-CERTIFICATION

A person who hauls a load of ten (10) or more waste tires must submit an annual report to the Department on the Commercial Waste Tire Hauler Annual Report Form (Form WT-4). This form may be obtained by contacting the Department or available at the Department's website.

(A) The Department may require Waste Tire Haulers to furnish additional information concerning compliance with the regulatory requirements of 6 CCR 1007-2 using a self-certification process.

(B) Any Waste Tire Hauler who receives a Self-Certification Checklist from the Department must complete and return the checklist within the time specified in the instructions provided by the Department.

(C) The Department will provide Waste Tire Haulers a reasonable amount of time to complete and return the checklist. At a minimum, the Waste Tire Hauler will have fourteen (14) days from the date of receipt to return the checklist. A checklist is deemed returned on the date it is received by the Department. The Department may provide an extension of time to complete and return the checklist upon request.

(D) The self-certification checklist will contain a certification in substantially the following form, which must be signed by an authorized representative of the Waste Tire Hauler:

"I, the undersigned facility representative, certify that:

i. I have personally examined and am familiar with the information contained in this submittal;

ii. The information contained in this submittal is to the best of my knowledge, true, accurate, and complete in all respects; and

iii. I am fully authorized to make this certification on behalf of this facility.

I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment for willfully submitting false, inaccurate, or incomplete information."

10.4 - STANDARDS FOR GENERATORS OF MOTOR VEHICLE AND TRAILER WASTE TIRES

10.4.1 GENERAL

This section 10.4 applies to all generators of motor vehicle or trailer waste tires, including but not limited to, new tire retailers, used tire retailers, motor vehicle dealers, motor vehicle dismantlers, public and private vehicle maintenance shops, garages, service stations, car care centers, automotive fleet centers, local government fleet operators, salvage and scrap yards and rental fleet operators.

10.4.2 GENERAL STANDARDS FOR GENERATORS OF MOTOR VEHICLE AND TRAILER WASTE TIRES

(A) All Waste Tire Generators must maintain all weather access roads to those areas of their facilities where waste tires are stored.

(B) All Waste Tire Generators must collect litter in and around any area used to store waste tires in order to avoid a fire hazard or a nuisance condition and control the growth of vegetation to minimize potential fuel sources.

(C) Waste Tire Generators must maintain a working telephone at their facilities.

(D) Waste Tire Generators must comply with the applicable local fire codes or, where no code exists or the local code does not provide equivalent or greater level of fire protection, the fire code currently adopted by the Colorado Division of Fire, Prevention and Control in the Department of Public Safety.

(E) Waste Tire Generators that are not also registered as a Waste Tire Collection Facility, Waste Tire Processor, or Waste Tire Monofill must not:

(1) Have on site more than one thousand five hundred (1,500) waste tires at any one time; or

(2) Store more than five hundred (500) waste tires outdoors at their facility.

(F) Waste Tire Generators must immediately notify the Solid Waste and Materials Management Program within the Colorado Department of Public Health and Environment in the event of a fire or other emergency involving waste tires. Within two (2) weeks of this notification, the Waste Tire Generator must submit a written report describing the emergency to the Solid Waste and Materials Management Program. This report must describe the origins of the emergency, the actions that have been taken, actions that are currently being taken or are planned, results or anticipated results of these actions, and an approximate date of resolution of the issues generated by the emergency:

(G) Waste Tire Generators must arrange for the commercial hauling or mobile processing of waste tires only with a waste tire hauler or mobile waste tire processor who is currently registered pursuant to these Regulations.

(H) Waste Tire Generators may accept waste tires.

(I) Waste Tire Generators that sell replacement tires in Colorado must not refuse to accept from a customer, at the point of transfer, motor vehicle or trailer waste tires of the same general type and in a quantity at least equal to the number of new tires purchased.

(J) Waste Tire Generators must maintain records for three (3) years showing how many waste tires they generated and documenting to whom they transferred the waste tires. For loads of 10 or more waste tires, the waste tire manifesting provisions of this Section 10 satisfy this requirement. For loads of 9 or less waste tires, Waste Tire Generators may use Form WT-10, available on the Department's website.

(K) Waste Tire Generators who accumulate at any one time more than hundred (100) waste tires must maintain security measures to prevent unlawful access to waste tires.

(L) Waste tires must not create nuisance conditions that could attract vectors of disease.

10.4.3 WASTE TIRE GENERATOR REGISTRATION REQUIREMENTS

(A) No person shall commercially generate motor vehicle or trailer waste tires, including but not limited to, as a new tire retailer, used tire retailer, motor vehicle dealer, motor vehicle dismantler, public or private vehicle maintenance shop, garage, service station, car care center, automotive fleet center, local government fleet operator, salvage and scrap yards or rental fleet operator in Colorado without having received a Certificate of Registration from the Department.

(B) An application for a Certificate of Registration must be submitted on Form WT-1 to the Solid Waste and Materials Management Program within the Hazardous Materials and Waste Management Division of the Department.

(C) Certificate of Registration applications for the generation of waste tires must include, at a minimum:

(1) The business name of Waste Tire Generator and any other names under which the Waste Tire Generator may do business;

(2) The principal business address of the Waste Tire Generator;

(3) A business telephone number(s);

(4) The name and address of the responsible officer of a corporate Waste Tire Generator, or the owner(s) of a Waste Tire Generator operating a proprietorship or a partnership;

(5) Whether the Waste Tire Generator sells new motor vehicle tires or new trailer tires; and

(6) The signature and date of signature of the Waste Tire Generator applicant.

(D) The Department will issue a Certificate of Registration to the applicant after approval of the application. Certificates of Registration must be maintained at the facility and made available for inspection.

(E) A Certificate of Registration is not transferable by the Waste Tire Generator to whom it was issued to any other person or entity.

(F) A Waste Tire Generator who has previously filed an application for a Certificate of Registration as a Waste Tire Generator (Form WT-1) is required to notify the Department in writing whenever changes occur to the following:

(1) Ownership;

(2) Mailing address;

(3) Business name;

(4) Type of registration;

(5) Contact name;

(6) Phone number;

(7) Waste tires are generated at a new location not registered with the Department; or

(8) The Waste Tire Generator is no longer generating waste tires at the location registered with the Department.

(G) The Department may cancel a Certificate of Registration of a person who no longer generates waste tires at their registered location.

10.4.4 WASTE TIRE GENERATOR FACILITY DECAL

(A) An application for a Certificate of Registration pursuant to section 10.4.3 above shall also serve as an application for a Waste Tire Facility decal.

(B) Waste Tire Generators will receive a Waste Tire Facility decal from the Department with their Certificate of Registration.

(C) Waste Tire Facility decals will have a unique number.

(D) Waste Tire Generators must post their Waste Tire Facility decal in a prominent location at the address where the waste tires are generated and where the decal is visible to the Waste Tire Hauler.

10.4.5 WASTE TIRE GENERATOR MANIFEST REQUIREMENTS

(A) No Waste Tire Generator may accept a shipment of more than ten (10) motor vehicle or trailer waste tires without an accompanying manifest properly completed pursuant to section 10.3.4 of these Regulations unless they comply with 10.1.3 (E).

(B) No Waste Tire Generator may offer a shipment of motor vehicle or trailer waste tires without receiving a manifest properly completed by the Waste Tire Hauler pursuant to section 10.3.4 of these Regulations.

(C) No Waste Tire Generator may offer motor vehicle or trailer waste tires for mobile processing without receiving a manifest properly completed by the Mobile Waste Tire Processor pursuant to section 10.7.5 of these Regulations.

(D) Manifests for all shipments of motor vehicle or trailer waste tires must be maintained on-site at the Waste Tire Generator's facility and available for inspection for three (3) years from the date of pick-up.

10.4.6 WASTE TIRE GENERATOR SELF-CERTIFICATION

(A) The Department may require Waste Tire Generators to furnish additional information concerning compliance with the regulatory requirements of 6 CCR 1007-2 using a self-certification process.

(B) Any Waste Tire Generator who receives a Self-Certification Checklist from the Department must complete and return the checklist within the time specified in the instructions provided by the Department.

(C) The Department will provide Waste Tire Generators a reasonable amount of time to complete and return a checklist. At a minimum, the Waste Tire Generator will have fourteen (14) days from the date of receipt to return the checklist. A checklist is deemed returned on the date it is received by the Department. The Department may provide an extension of time to complete and return the checklist upon request.

(D) The self-certification checklist shall contain a certification in substantially the following form, which must be signed by an authorized representative of the Waste Tire Generator:

"I, the undersigned facility representative, certify that:

i. I have personally examined and am familiar with the information contained in this submittal;

ii. The information contained in this submittal is to the best of my knowledge, true, accurate, and complete in all respects; and

iii. I am fully authorized to make this certification on behalf of this facility.

I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment for willfully submitting false, inaccurate, or incomplete information."

10.5 - STANDARDS FOR WASTE TIRE MONOFILLS

10.5.1 GENERAL WASTE TIRE MONOFILL STANDARDS

(A) Any person who owns or operates a Waste Tire Monofill must have and comply with a valid Certificate of Designation issued pursuant to section 1.3 of these Regulations.

(B) A Certificate of Designation for a Waste Tire Monofill must include an Engineering Design and Operations Plan (EDOP) which includes the requirements listed in section 10.5.8, a Waste Tire Inventory Reduction Plan as required by 10.5.1 (J), the Financial Assurance requirements in section 10.5.6, and a Closure and Post-Closure Plan as required by section 10.5.9.

(C) Any person who owns or operates a Waste Tire Monofill must maintain all weather access roads to those areas of active operation and as necessary to meet the Fire Prevention, Training and Firefighting Plan required by subsection 10.5.8(A)(3) of these Regulations.

(D) Any person who owns or operates a Waste Tire Monofill must collect litter in order to avoid a fire hazard or a nuisance condition and control the growth of vegetation to minimize potential fuel sources.

(E) Any person who owns or operates a Waste Tire Monofill must implement security measures to preclude unauthorized entry.

(F) Any person who owns or operates a Waste Tire Monofill must post signs in public view at the entrance to the Waste Tire Monofill with the name of the facility, the hours which the facility is open for public use, a listing of the wastes accepted at the facility, and a phone number for a 24 hour emergency contact. The signs must be posted in English and any other language predominant in the area surrounding the facility.

(G) Any person who owns or operates a Waste Tire Monofill must maintain a working telephone at each Waste Tire Monofill facility.

(H) During all stages of operation of a Waste Tire Monofill, the owner or operator must have an attendant who is responsible for site activities.

(I) A Waste Tire Monofill owner or operator must immediately notify the Solid Waste Program within the Colorado Department of Public Health and Environment in the event of a fire or other emergency involving waste tires. Within two (2) weeks of this notification, the owner or operator must submit a written report describing the emergency to the Solid Waste Program. This report must describe the origins of the emergency, the actions that have been taken, actions that are currently being taken or are planned, results or anticipated results of these actions, and an approximate date of resolution of the issues generated by the emergency.

(J) Waste Tire Inventory Reduction Plan: Owners/operators of a Waste Tire Monofill must on an annual basis, for every one (1) waste tire received, end use at least two (2) waste tires or process at least two (2) waste tires into tire-derived product. All owners or operators must submit for Department approval a Waste Tire Inventory Reduction Plan that shows how they will comply with this section. All owners or operators must comply with their Waste Tire Inventory Reduction Plan. An owner or operator of a Waste Tire Monofill may claim that information or data submitted in the Waste Tire Inventory Reduction Plan, should be withheld as Confidential Business Information ("CBI") or Trade Secret. The Department will hold information contained in the Waste Tire Inventory Reduction Plan as CBI/Trade Secret pursuant to section 7-74-102, C.R.S. and section 18-4-408(2), C.R.S. The burden of proving that the information or data is protected as CBI or Trade Secret shall be upon the party asserting the claim.

(K) Any person who owns or operates a Waste Tire Monofill must arrange for the commercial hauling or mobile processing of waste tires only with a waste tire hauler or mobile waste tire processor who is currently registered pursuant to these Regulations.

(L) Any person who owns or operates a Waste Tire Monofill must ensure that all waste tires collected at its facility are delivered to a waste tire monofill, a waste tire processor or to a waste tire collection facility operating in compliance with the Act and the Regulations or mobile processed. An owner/operator of a Waste Tire Monofill may ship whole waste tires to an End User who end uses whole waste tires for fuel or energy recovery.

(M) Any person who owns or operates a Waste Tire Monofill must not place any waste tires into monofill storage after January 1, 2018. All Waste Tire Monofills must close by July 1, 2024.

(N) Any person who owns or operates a Waste Tire Monofill must comply with the applicable local fire codes or, where no code exists or the local code does not provide equivalent or greater level of fire protection, the fire code currently adopted by the Colorado Division of Fire Prevention and Control in the Department of Public Safety.

(O) Any person who owns or operates a Waste Tire Monofill must comply with their facility's EDOP.

(P) After soliciting public comment, the Department may issue a waiver relating to any requirement of this section, except that the Department shall not issue a waiver of Section 30-20-1415 (1) (j) and (1) (k), C.R.S., and the parallel provision in Sections 10.5.1 (J) and (M) unless:

(1) The Waste Tire Monofill owner or operator has demonstrated that it has achieved a net reduction on an annual basis in the number of waste tires in the monofill; OR

(2) Unless an emergency event of limited duration such as a fire, flood, tornado, an instance of an uncontrollable natural force or human caused disaster has occurred which requires the Waste Tire Monofill to be an outlet for the receipt of waste tires.

10.5.2 WASTE TIRE MONOFILL REGISTRATION REQUIREMENTS

(A) No person shall operate a Waste Tire Monofill without having received a Certificate of Registration from the Department.

(B) Applications for Certificates of Registration must be submitted on Form WT-1 to the Solid Waste and Materials Management Program within the Hazardous Materials and Waste Management Division of the Department.

(C) Certificate of Registration applications for operation of a Waste Tire Monofill must include:

(1) The business name of the Waste Tire Monofill and any other names under which the Waste Tire Monofill may do business;

(2) The principal business address of the Waste Tire Monofill;

(3) A business telephone number(s);

(4) The name and address of the responsible officer of a corporate Waste Tire Monofill, or the owner(s) of a Waste Tire Monofill operating a proprietorship or a partnership; and

(5) The signature and date of signature of the Waste Tire Monofill applicant.

(D) The Department will issue a Certificate of Registration to the applicant after approval of the application. Certificates of Registration must be maintained at the facility and made available for inspection.

(E) A Certificate of Registration is not transferable by the owner or operator of a Waste Tire Monofill to whom it was issued to any other person or entity, without the Department's prior approval based on information described in section 10.5.2(F) below.

(F) An owner or operator of a Waste Tire Monofill who has previously filed an application for a Certificate of Registration as a Waste Tire Monofill (Form WT-1) is required to notify the Department in writing whenever changes occur to the following:

(1) Ownership;

(2) Mailing address;

(3) Business name;

(4) Type of registration;

(5) Contact name;

(6) Phone number; or

(7) The owner or operator is no longer operating a Waste Tire Monofill at the location registered with the Department.

(G) The Department may cancel a Certificate of Registration of an owner or operator who no longer operates a Waste Tire Monofill at their registered location.

10.5.3 WASTE TIRE MONOFILL FACILITY DECAL

(A) An application for a Certificate of Registration pursuant to section 10.5.2 above, shall also serve as an application for a Waste Tire Facility decal.

(B) An owner or operator of a Waste Tire Monofill will receive a Waste Tire Facility decal from the Department with its Certificate of Registration. Waste Tire decals will have a unique number.

(C) An owner or operator of a Waste Tire Monofill must post their Waste Tire Facility decal in a prominent location at the address used to store/accumulate waste tires and where the decal is visible to the Waste Tire Hauler.

10.5.4 WASTE TIRE MONOFILL MANIFEST REQUIREMENTS

(A) No owner or operator of a Waste Tire Monofill may accept a shipment of more than ten (10) waste tires from a Waste Tire Hauler or Mobile Waste Tire Processor without an accompanying manifest properly completed pursuant to sections 10.3.4 or 10.7.5 of these Regulations unless they comply with section 10.1.3 (E).

(B) Manifests for all shipments of waste tires accepted by an owner or operator of a Waste Tire Monofill must be maintained on-site at that facility and available for inspection for three (3) years from the date of delivery.

(C) No owner or operator of a Waste Tire Monofill may offer a shipment of more than ten (10) waste tires without an accompanying manifest properly completed by the Waste Tire Hauler pursuant to section 10.3.4 of these Regulations.

(D) No owner or operator of a Waste Tire Monofill may offer waste tires for processing without receiving a manifest properly completed by the Mobile Waste Tire Processor pursuant to section 10.7.5 of these Regulations.

(E) Manifests for all shipments of waste tires offered by the owner or operator of a Waste Tire Monofill must be maintained on-site at that facility and available for inspection for three (3) years from the date of pick-up.

10.5.5 WASTE TIRE MONOFILL FINANCIAL ASSURANCE

Any person who owns or operates a Waste Tire Monofill must maintain financial assurance for any required reclamation and for closure and post-closure care of the Facility pursuant to section 4 of these Regulations.

10.5.6 ANNUAL REPORT

(A) Any person who owns or operates a Waste Tire Monofill must submit an annual report to the Department and local governing body having jurisdiction by March 1st of each year on the Waste Tire Facility Annual Reporting Form (Form WT-5). The annual report must include the amount, by actual count or by actual weight in tons, of waste tires received at the facility, how many waste tires were processed or end used at the facility, how many waste tires were shipped off-site from the facility for the preceding calendar year, and the total amount of waste tires accepted from unregistered waste tire haulers.

(B) The annual report must include, in addition to the information in section 10.5.6(A) above, information concerning compliance with the Waste Tire Inventory Reduction Plan in section 10.5.1 (J). An owner or operator of a Waste Tire Monofill may claim that information or data submitted in the annual report, including the report on the Waste Tire Inventory Reduction Plan, should be withheld as Confidential Business Information ("CBI") or Trade Secret. The Department will hold information contained in the Waste Tire Inventory Reduction Plan as CBI/Trade Secret pursuant to section 7-74-102, C.R.S. and section 18-4-408(2), C.R.S. The burden of proving that the information or data is protected as CBI or Trade Secret shall be upon the party asserting the claim.

10.5.7 WASTE TIRE MONOFILL SELF-CERTIFICATION

(A) The Department may require an owner or operator of a Waste Tire Monofill to furnish additional information concerning compliance with the regulatory requirements of 6 CCR 1007-2 using a self-certification process.

(B) An owner or operator of a Waste Tire Monofill who receives a Self-Certification Checklist from the Department must complete and return the checklist within the time specified in the instructions provided by the Department.

(C) The Department will provide the owner or operator of a Waste Tire Monofill a reasonable amount of time to complete and return a checklist. At a minimum, the owner or operator of a Waste Tire Monofill will have fourteen (14) days from the date of receipt to return the checklist. A checklist is deemed returned on the date it is received by the Department. The Department may provide an extension of time to complete and return the checklist upon request.

(D) The self-certification checklist will contain a certification in substantially the following form, which must be signed by an authorized representative of the Waste Tire Monofill:

"I, the undersigned facility representative, certify that:

i. I have personally examined and am familiar with the information contained in this submittal;

ii. The information contained in this submittal is to the best of my knowledge, true, accurate, and complete in all respects; and

iii. I am fully authorized to make this certification on behalf of this facility.

I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment for willfully submitting false, inaccurate, or incomplete information."

10.5.8 WASTE TIRE MONOFILL FACILITY ENGINEERING DESIGN AND OPERATIONS PLAN

(A) Any person who owns or operates a Waste Tire Monofill must have an EDOP, approved by the Department, which must, at a minimum, include all of the following:

(1) General:

(a) Nature of the activity conducted at the facility;

(b) The capacity and type of equipment to be used at the facility;

(c) All methods of waste tire processing and storage;

(d) Means used to track inventory on a volume or weight basis;

(e) Security measures;

(f) How the facility intends to implement the requirements listed in section 10.5.1 above; and

(g) Annual training requirements for all employees on all approved facility plans described in this section 10.5.8, and how that training will be documented and verified.

(2) Emergency Response Plan which includes:

(a) General facility information including:

(i) The facility name, mailing address and telephone number;

(ii) The facility operator's name, mailing address and telephone number; and

(iii) The property owner's name, mailing address and telephone number;

(b) An emergency contact list including the names and telephone numbers of the persons and appropriate agencies to be contacted in case of emergency, including:

(i) The Emergency Coordinator;

(ii) The Facility Owner;

(iii) The Facility Operator;

(iv) The Local Fire Authority; and

(v) Any additional numbers that may be needed.

(c) Emergency Equipment available on site, including specific capabilities and uses;

(d) A map showing the location of fire lanes, tire pile configurations, fire hydrants, power supply, and emergency response equipment; and

(e) A description of emergency response procedures to be followed in the event of a fire or other emergency.

(3) Fire Prevention, Training and Firefighting Plan which:

(a) Includes specification of the Facility's fire lane locations and widths;

(b) Includes resources to extinguish fires;

(c) Designates a Facility Emergency Coordinator;

(d) Is approved by the local fire department/local fire jurisdiction or in areas where no local fire code exists, by the Colorado Division of Fire Prevention and Control in the Department of Public Safety;

(e) Ensures the owner or operator complies with the applicable local fire codes or, where no code exists or the local code does not provide equivalent or greater level of fire protection, the fire code currently adopted by the Colorado Division of Fire Prevention and Control in the Department of Public Safety; and

(f) Includes specification for adequate water supply available for use by the local fire authority for firefighting. Owners and operators may demonstrate compliance with this requirement through alternative methods approved by the local fire authority.

(4) Vector Control Plan which includes:

(a) Provisions for storage of tires in a manner which prevents the breeding and harborage of mosquitoes, rodents, and other vectors by any of the following means: (i) cover with impermeable barriers, other than soil, to prevent entry or accumulation of precipitation, or (ii) use of treatments or methods, such as pesticides, to prevent or eliminate vector breeding as necessary.

(b) If pesticides are used in vector control efforts, they must be used in accordance with the Pesticide Applicators Act, section 35-10-101, C.R.S.

10.5.9 CLOSURE AND POST-CLOSURE CARE OF WASTE TIRE MONOFILLS

(A) Any person who owns or operates a Waste Tire Monofill must close and maintain the Waste Tire Monofill in accordance with sections 2.5, 2.6, and 10.5 of these Regulations.

(B) Any person who owns or operates a Waste Tire Monofill must prepare a Closure Plan as part of the Engineering Design and Operations Plan. The Closure Plan must describe the steps necessary to close the Waste Tire Monofill at any point during its active life and at the end of the facility's active life. The facility may either: 1) close the waste in place as a solid waste landfill in accordance with these Solid Waste Regulations, or 2) remove all solid waste and residual contamination to meet unrestricted use concentrations. Option 2, also known as "clean closure," eliminates the need for post closure care. Both Option 1 and Option 2 require the owner or operator of a Waste Tire Monofill to develop a closure plan.

(1) The closure plan, at a minimum, must include the following information:

(a) Provisions for removal of all solid waste at those facilities choosing partial or facility-wide clean closure;

i. Proposed plans and procedures for sampling and testing soil based on visual identification of staining or other indications of residual contamination;

ii. Provisions for sampling and analyses of soil for potential hazardous characteristics and provisions for final disposal. Soils will need to meet unrestricted use concentrations or background levels whichever is greater.

(b) Provision for the consolidation and placement of residual wastes remaining on site;

(c) Procedures for placement of final cover materials and final cover configurations.

(2) General description of the site post-closure, including:

(a) The final property contours, material and procedures to be used to cover the waste tires;

(b) A description of final soil placement and establishment of plant life;

(c) A description of anticipated post disposal land use;

(d) A schedule for completing all activities necessary to satisfy the closure criteria of this section; and

(e) An analysis of whether section 25-15-320, C.R.S. will require an environmental covenant following closure.

(3) Owners or operators of all Waste Tire Monofills must submit a Closure Report to the Department at the time of final closure. The report must summarize the number or volume of tires disposed of in each pit, and phone number of person(s) responsible for post closure control of the facility.

(4) At least sixty (60) days in advance of the proposed closure date, the owner or operator must notify the Department and the local governing authority of the proposed closure date.

(5) The owner or operator must notify the general public at least sixty (60) days in advance of the proposed closure by placing signs of suitable size at the entrance to the site and facility.

(6) The owner or operator of the facility must complete closure activities of the facility in accordance with the closure plan and within one hundred eighty (180) calendar days following the final receipt of waste. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will take longer than one hundred eighty (180) calendar days and the owner/operator has taken and will continue to take all steps to prevent threats to human health and the environment.

(7) Following closure of an Waste Tire Monofill, the owner or operator shall comply with section 25-15-320, C.R.S. unless the site is remediated to a condition that is suitable for unrestricted use. If waste is left in place as part of the closure, record a notation in the chain of title specifying that the land has been used as a Waste Tire Monofill; a copy of which must be provided to the Department prior to recording for review and approval.

(8) Closure Certification: A closure certification report is required to be submitted within sixty (60) calendar days of completion of closure activities which documents all the requirements and conditions of the closure plan have been achieved. The Report must be signed and sealed by a Colorado registered professional engineer and is subject to review and approval by the Department.

(C) POST-CLOSURE CARE AND MAINTENANCE REQUIREMENTS FOR WASTE TIRE MONOFILLS

Post-Closure Activities: Following closure of the Waste Tire Monofill the owner or operator shall submit a Post-Closure Care Plan within sixty (60) calendar days of determining that the waste tire facility was closed as a landfill that will include at least the following:

(1) Provisions to prevent nuisance conditions;

(2) Maintaining the integrity and effectiveness of the final cover, should waste remain in place, including making repairs to the cover and replanting vegetation as necessary; and

(3) Name, address, and telephone number of the person or office to contact about the facility during the post-closure period.

10.6 - STANDARDS FOR WASTE TIRE PROCESSORS

10.6.1 GENERAL

Waste tire processing is not subject to the Recycling requirements of section 8 of these Regulations or the annual fee requirements of section 1.7.3 of these Regulations.

10.6.2 GENERAL STANDARDS FOR WASTE TIRE PROCESSORS

(A) All Waste Tire Processors must maintain all weather access roads to those areas of active operation and as necessary to meet the Fire Prevention, Training and Firefighting Plan required by subsection 10.6.9(A)(3) of these Regulations.

(B) All Waste Tire Processors must collect litter in order to avoid a fire hazard or a nuisance condition and control the growth of vegetation to minimize potential fuel sources.

(C) All Waste Tire Processors must implement security measures to preclude unauthorized entry.

(D) Prominent signs in English and any other language predominant in the area surrounding the facility must be posted in public view at the entrance to each Waste Tire Processing facility with the name of the facility, the hours which the facility is open for public use, a listing of the wastes accepted at the facility, and a phone number for a 24 hour emergency contact.

(E) The Waste Tire Processor must maintain a working telephone at each Waste Tire Processor facility.

(F) During all stages of operation of a Waste Tire Processor, the facility must have an attendant who is responsible for site activities.

(G) A Waste Tire Processor operator must immediately notify the Solid Waste Program within the Colorado Department of Public Health and Environment in the event of a fire or other emergency involving waste tires. Within two (2) weeks of this notification, the facility must submit a written report describing the emergency to the Solid Waste Program. This report must describe the origins of the emergency, the actions that have been taken, actions that are currently being taken or are planned, results or anticipated results of these actions, and an approximate date of resolution of the issues generated by the emergency.

(H) Following a one-year accumulation period, the weight or volume of waste tires that are processed must be at least 75% of the total weight or volume of waste tires received and currently in storage over a three year rolling average. A Waste Tire Processor that is also registered as a Waste Tire Monofill is exempt from this requirement and must comply with the requirement in section 10.5.1(J).

(I) A Waste Tire Processor that is not also registered as a Waste Tire Monofill must not have at the processing facility at any one time more than the lesser of:

(1) One hundred thousand (100,000) waste tires;

(2) The amount of waste tires allowed under local requirements; or

(3) The amount of waste tires anticipated in the Waste Tire Processor's financial assurance instrument.

(J) Waste Tire Processors must arrange for the commercial hauling of waste tires only with a waste tire hauler who is currently registered pursuant to section 10.3.2 of these Regulations.

(K) Waste Tire Processors must ensure that any waste tires shipped off-site from their facilities are delivered either out of state or to a registered Waste Tire Generator, Waste Tire Hauler, Waste Tire Collection Facility, Waste Tire Monofill, or another Waste Tire Processor operating in compliance with the Act and the Regulations. Waste Tire Processors may ship whole waste tires to an End User who end uses whole waste tires for fuel or energy recovery.

(L) Waste Tire Processors must comply with the applicable local fire codes or, where no code exists or the local code does not provide equivalent or greater level of fire protection, the fire code currently adopted by the Colorado Division of Fire Prevention and Control in the Department of Public Safety.

(M) Waste Tire Processors must comply with the facility's Engineering Design and Operations Plan (EDOP).

10.6.3 WASTE TIRE PROCESSORS REGISTRATION REQUIREMENTS

(A) No person shall process waste tires without having received a Certificate of Registration from the Department.

(B) Applications for Certificates of Registration must be submitted on Form WT-1 to the Solid Waste and Materials Management Program within the Hazardous Materials and Waste Management Division of the Department.

(C) Certificate of Registration applications for operation of a Waste Tire Processor must include:

(1) The business name of the Waste Tire Processor and any other names under which the Waste Tire Processor may do business;

(2) The principal business address of the Waste Tire Processor;

(3) A business telephone number(s);

(4) The name and address of the responsible officer of a corporate Waste Tire Processor, or the owner(s) of a Waste Tire Processor operating a proprietorship or a partnership; and

(5) The signature and date of signature of the Waste Tire Processor applicant.

(D) The Department will issue a Certificate of Registration to the applicant after approval of the application. Certificates of Registration must be maintained at the facility and made available for inspection

(E) A Certificate of Registration is not transferable by the Waste Tire Processor to whom it was issued to any other person or entity.

(F) A Waste Tire Processor who has previously filed an application for a Certificate of Registration as a Waste Tire Processor (Form WT-1) is required to notify the Department in writing whenever changes to the following occur:

(1) Ownership;

(2) Mailing address;

(3) Business name;

(4) Type of registration;

(5) Contact name;

(6) Phone number;

(7) Waste tires are processed at a new location not registered with the Department; or

(8) The owner/operator is no longer operating as a Waste Tire Processor at the location registered with the Department.

(G) The Department may cancel a Certificate of Registration of a person who no longer processes waste tires.

10.6.4 WASTE TIRE PROCESSOR FACILITY DECAL

(A) An application for a Certificate of Registration pursuant to section 10.6.3 above, will also serve as an application for a Waste Tire Facility decal.

(B) Waste Tire Processors will receive a Waste Tire Facility decal from the Department with their Certificate of Registration. Waste tire decals will have a unique number.

(C) Waste Tire Processors must post their Waste Tire Facility decal in a prominent location at the address used to process tires and where the decal is visible to the Waste Tire Hauler.

10.6.5 WASTE TIRE PROCESSOR MANIFEST REQUIREMENTS

(A) No Waste Tire Processor may accept a shipment of ten (10) or more waste tires from a Waste Tire Hauler without an accompanying manifest properly completed pursuant to section 10.3.4 of these Regulations unless they comply with section 10.1.3 (E).

(B) Waste Tire Processors must maintain on-site at their facility manifests for all shipments of waste tires accepted and make the manifests available for inspection for three (3) years from the date of delivery.

(C) No Tire Waste Tire Processor may offer a shipment of ten (10) or more waste tires without an accompanying manifest properly completed by the Waste Tire Hauler pursuant to section 10.3.4 of these Regulations.

(D) Waste Tire Processors must maintain on-site at their facility manifests for all shipments of waste tires offered and make the manifests available for inspection for three (3) years from the date of pick-up.

10.6.6 WASTE TIRE PROCESSOR FINANCIAL ASSURANCE

All Waste Tire Processors must maintain financial assurance for any required reclamation and for closure and post-closure care of the Facility pursuant to section 4 of these Regulations.

10.6.7 ANNUAL REPORT

(A) All Waste Tire Processors must submit an annual report to the Department and local governing body having jurisdiction by March 1st of each year on the Waste Tire Facility Annual Reporting Form (Form WT-5). The annual report must include the amount, by actual count or by actual weight in tons, of waste tires received at the facility, how many waste tires were processed at the facility, how many waste tires were shipped off-site from the facility for the preceding year, and the total amount of waste tires accepted from unregistered waste tire haulers.

(B) The annual report must include, in addition to the information in section 10.6.7(A) above, information concerning compliance with Section 10.6.2(H) that the Waste Tire Processor processed into tire-derived product at least 75% of the three year rolling average annual amount, by weight or number, of waste tires that the Waste Tire Processor accepted during the previous three (3) calendar years.

(C) A Waste Tire Processor may claim that information or data submitted in the Waste Tire Annual Report should be withheld as Confidential Business Information ("CBI") or Trade Secret. The Department will hold information contained in the Waste Tire Inventory Reduction Plan as CBI/Trade Secret pursuant to section 7-74-102, C.R.S. and section 18-4-408(2), C.R.S. The burden of proving that the information or data is protected as CBI or Trade Secret shall be upon the party asserting the claim.

10.6.8 WASTE TIRE PROCESSOR SELF-CERTIFICATION

(A) The Department may require Waste Tire Processors to furnish additional information concerning compliance with the regulatory requirements of 6 CCR 1007-2 using a self-certification process.

(B) Any Waste Tire Processor who receives a Self-Certification Checklist from the Department must complete and return the checklist within the time specified in the instructions provided by the Department.

(C) The Department will provide Waste Tire Processors a reasonable amount of time to complete and return a checklist. At a minimum, the Waste Tire Processor will have fourteen (14) days from the date of receipt to return the checklist. A checklist is deemed returned on the date it is received by the Department. The Department may provide an extension of time to complete and return the checklist upon request.

(D) The self-certification checklist shall contain a certification in substantially the following form, which must be signed by an authorized representative of the Waste Tire Processor:

"I, the undersigned facility representative, certify that:

i. I have personally examined and am familiar with the information contained in this submittal;

ii. The information contained in this submittal is to the best of my knowledge, true, accurate, and complete in all respects; and

iii. I am fully authorized to make this certification on behalf of this facility.

I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment for willfully submitting false, inaccurate, or incomplete information."

10.6.9 WASTE TIRE PROCESSOR ENGINEERING DESIGN AND OPERATIONS PLAN

(A) Each Waste Tire Processor must have an Engineering Design and Operations Plan, approved by the Department, which must, at a minimum, include all of the following:

(1) General:

(a) Nature of the activity conducted at the facility;

(b) The capacity and type of equipment to be used at the facility;

(c) All methods of processing and storage;

(d) Means used to track inventory on a volume or weight basis;

(e) Security measures;

(f) How the facility intends to implement the requirements listed in section 10.6.2 above; and

(g) Annual training requirements for all employees on all approved facility plans described in section 10.6.9, and how that training will be documented and verified.

(2) Emergency Response Plan which includes:

(a) General facility information including:

(i) The facility name, mailing address and telephone number;

(ii) The facility operator's name, mailing address and telephone number; and

(iii) The property owner's name, mailing address and telephone number.

(b) An emergency contact list including the names and telephone numbers of the persons and appropriate agencies to be contacted in case of emergency, including:

(i) The Emergency Coordinator;

(ii) The Facility Owner;

(iii) The Facility Operator;

(iv) The Local Fire Authority; and

(v) Any additional numbers that may be needed.

(c) Emergency Equipment available on site, including specific capabilities and uses.

(d) A map showing the location of fire lanes, tire pile configurations, fire hydrants, power supply, and emergency response equipment.

(e) A description of emergency response procedures to be followed in the event of a fire or other emergency.

(3) Fire Prevention, Training and Firefighting Plan which:

(a) Includes specification of the Facility's fire lane locations and widths;

(b) Includes resources to extinguish fires;

(c) Designates a Facility Emergency Coordinator;

(d) Is approved by the local fire department/local fire jurisdiction or in areas where no local fire code exists, by the Colorado Division of Fire Prevention and Control in the Department of Public Safety; and

(e) Ensures the Waste Tire Processor complies with the applicable local fire codes or, where no code exists or the local code does not provide equivalent or greater level of fire protection, the fire code currently adopted by the Colorado Division of Fire Prevention and Control in the Department of Public Safety.

(4) Vector Control Plan which includes:

(a) Provisions for storage of tires in a manner which prevents the breeding and harborage of mosquitoes, rodents, and other vectors by any of the following means: (i) cover with impermeable barriers, other than soil, to prevent entry or accumulation of precipitation, or (ii) use of treatments or methods, such as pesticides, to prevent or eliminate vector breeding as necessary; and

(b) Provisions ensuring that if pesticides are used in vector control efforts, they must be used in accordance with the Pesticide Applicators Act, section 35-10-101, C.R.S.

10.6.10 CLOSURE AND POST-CLOSURE CARE OF WASTE TIRE PROCESSOR FACILITIES

(A) Waste Tire Processors must close and maintain their facilities in accordance with sections 2.5, 2.6, and 10.6 of these Regulations.

(B) Closure Plan Requirements for Waste Tire Processors: The closure plan must be prepared as part of an Engineering Design and Operations Plan and must describe the steps necessary to close the Waste Tire Processor's facility at any point during its active life and at the end of the facility's active life. The Waste Tire Processor must remove all solid waste and residual contamination to meet unrestricted use concentrations. The closure plan, at a minimum, must include the following information:

(1) Provisions for removal of all solid waste at the site, including:

(a) Proposed plans and procedures for sampling and testing soil based on visual identification of staining or other indications of residual contamination;

(b) Provisions for sampling and analyses of soil for potential hazardous characteristics and provisions for final disposal. Soils will need to meet unrestricted use concentrations or background levels whichever is greater; and

(c) A schedule for completing all activities necessary to satisfy the closure criteria of this section.

(2) Waste Tire Processors must submit a Closure Certification Report to the Department at the time of final closure. The report must summarize and document the closure activities, including any analytical results, needed to support the unrestricted use condition of the facility.

(3) At least sixty (60) days in advance of the proposed closure date, the Waste Tire Processor must notify the Department and the local governing authority of the proposed closure date.

(4) The owner or operator must notify the general public at least sixty (60) days in advance of the proposed closure by placing signs of suitable size at the entrance to the site and facility.

(5) Waste Tire Processors must complete closure activities of their facility in accordance with the closure plan and within one hundred eighty (180) calendar days following the final receipt of waste tires. Extensions of the closure period may be granted by the Department if the Waste Tire Processor demonstrates that closure will take longer than one hundred eighty (180) calendar days and the owner/operator has taken and will continue to take all steps to prevent threats to human health and the environment.

(6) Closure Certification: Waste Tire Processors must submit a closure certification report within sixty (60) calendar days of completion of closure activities which documents all the requirements and conditions of the closure plan have been achieved. The Report must be signed and sealed by a Colorado registered professional engineer and is subject to review and approval by the Department.

10.7 - STANDARDS FOR MOBILE WASTE TIRE PROCESSORS

10.7.1 GENERAL

Mobile waste tire processing is not subject to the Recycling requirements of section 8 of these Regulations or the annual fee requirements of section 1.7.3 of these Regulations.

10.7.2 GENERAL STANDARDS FOR MOBILE WASTE TIRE PROCESSORS

(A) All Mobile Waste Tire Processors must collect litter around their mobile processing operation in order to avoid a fire hazard or a nuisance and control the growth of vegetation to minimize potential fuel sources.

(B) The operator must ensure access to a working telephone at each Mobile Waste Tire Processor site.

(C) During all stages of operation at a mobile processing site, a Mobile Waste Tire Processor must ensure that an attendant who is responsible for mobile processing site activities is present.

(D) A Mobile Waste Tire Processor operator must immediately notify the Solid Waste and Materials Management Program within the Colorado Department of Public Health and Environment in the event of a fire or other emergency involving waste tires. Within two weeks of this notification, the facility must submit a written report describing the emergency to the Solid Waste and Materials Management Program. This report must describe the origins of the emergency, the actions that have been taken, actions that are currently being taken or are planned, results or anticipated results of these actions, and an approximate date of resolution of the problems generated by the emergency.

(E) A Mobile Waste Tire Processor must not lease or own the property on which the processing occurs. Persons who own or lease the property on which they process waste tires are Waste Tire Processors and are not Mobile Waste Tire Processors.

(F) A Mobile Waste Tire Processor must not accept or accumulate waste tires unless also registered as a Waste Tire Processor at the property on which the processing occurs.

(G) A Mobile Waste Tire Processor must receive permission from the local governing authority prior to beginning to process waste tires at the location for any period of time.

(H) A Mobile Waste Tire Processor must notify the Department fourteen (14) days prior to beginning processing, the location where mobile processing will occur, the dates of processing, and the number of days processing at the site.

(I) A Mobile Waste Tire Processor must not process waste tires at a location for more than thirty (30) consecutive days unless the Mobile Waste Tire Processor:

(1) Is registered as a Waste Tire Processor at that location; or

(2) Receives Departmental approval to process for more than thirty (30) consecutive days at the location and remains in compliance with all state and local environmental requirements at the location of mobile processing.

(J) Mobile Waste Tire Processors must comply with their Engineering Design and Operations Plan (EDOP).

10.7.3 MOBILE WASTE TIRE PROCESSORS REGISTRATION REQUIREMENTS

(A) No person shall operate as a Mobile Waste Tire Processor without having received a Certificate of Registration from the Department.

(B) Applications for Certificates of Registration must be submitted on Form WT-1 or WT-1M to the Solid Waste and Materials Management Program within the Hazardous Materials and Waste Management Division of the Department.

(C) Certificate of Registration applications for operating as a Mobile Waste Tire Processor must include:

(1) The business name of the Mobile Waste Tire Processor and any other names under which the Mobile Waste Tire Processor may do business;

(2) The permanent business address of the Mobile Waste Tire Processor;

(3) A business telephone number(s) and email address;

(4) The name and address of the responsible officer of a corporate Mobile Waste Tire Processor, or the owner(s) of a Mobile Waste Tire Processor operating a proprietorship or a partnership;

(5) The signature and date of signature of the Mobile Waste Tire Processor applicant; and

(6) The types of mobile processing equipment the Mobile Waste Tire Processor uses to process waste tires in Colorado.

(D) The Department will issue a Certificate of Registration to the applicant after approval of the application. Certificates of Registration must be maintained at the permanent address of the Mobile Waste Tire Processor and made available for inspection.

(E) A Certificate of Registration is not transferable by the Mobile Waste Tire Processor to whom it was issued to any other person or entity.

(F) The Certificate of Registration for a Mobile Waste Tire Processor is valid from the date of issuance to April 15 of the year indicated on the Certificate of Registration.

(G) A Mobile Waste Tire Processor is not authorized to mobile process waste tires after the April 15 expiration date unless the Mobile Waste Tire Processor has applied to renew the Certificate of Registration prior to expiration and has received a new Certificate of Registration as a Mobile Waste Tire Processor from the Department and Mobile Waste Tire Processor decals, pursuant to section 10.7.4 below.

(H) All Mobile Waste Tire Processors who wish to continue mobile processing waste tires must submit application for renewal no later than March 1.

(I) A Waste Tire Mobile Processor who has previously filed an application for a Certificate of Registration as a Waste Tire Mobile Processor (Form WT-1 or WT-1M) is required to notify the Department in writing whenever changes occur to the following:

(1) Ownership;

(2) Mailing address;

(3) Business name;

(4) Type of registration;

(5) Contact name;

(6) Phone number; or

(7) The Waste Tire Mobile Processor is no longer mobile processing waste tires.

(J) The Department may cancel a Certificate of Registration of a person who no longer mobile processes waste tires.

10.7.4 MOBILE WASTE TIRE PROCESSOR DECAL

(A) No person shall mobile process waste tires in Colorado without having received a Mobile Waste Tire Processor decal. An application for a Certificate of Registration pursuant to section 10.7.3 above, shall also serve as an application for a Mobile Waste Tire Processor decal(s). A Mobile Waste Tire Processor must submit an updated application for a Certificate of Registration within fifteen (15) days after the Mobile Waste Tire Processor purchases new mobile processing equipment or rents or leases mobile processing equipment.

(B) Mobile Waste Tire Processors will receive from the Department Mobile Waste Tire Processor decal(s) for each type of mobile processing equipment with their Certificate of Registration. Each decal will have a unique number.

(C) Each Mobile Waste Tire Processor decal will be valid until April 15 of the year indicated on the vehicle decal and will have a unique number. Prior to the expiration date, a Mobile Waste Tire Processor must submit a new application for a Certificate of Registration pursuant to section 10.7.3 above.

(D) A Mobile Waste Tire Processor decal must be affixed to the mobile processing equipment. If the decal cannot be affixed to the mobile processing the equipment, the operator must have the decal available at all times for inspection.

(F) A Mobile Waste Tire Processor decal is not transferable by the Mobile Waste Tire Processor to whom it was issued to any other person or entity and must not be used for any vehicle not listed by the Registered Mobile Waste Tire Processor on its application for a Certificate of Registration as a Mobile Waste Tire Processor.

10.7.5 MOBILE WASTE TIRE PROCESSOR MANIFEST REQUIREMENTS

(A) No person may accept waste tires for mobile processing without completing a paper or electronic manifest to section 10.7.5 of these Regulations.

(B) Paper or electronic manifests for all waste tires shipped, accepted and/or processed by a Mobile Waste Tire Processor must be maintained on-site at the principal business address as identified on the Certificate of Registration and available for inspection for three (3) years from the date of delivery.

(C) At the conclusion of the mobile processing at the location, the Mobile Waste Tire Processor must create a paper or electronic manifest for waste tires that are processed. Such persons must use the Uniform Mobile Waste Tire Processor Manifest Form (Form WT-7), available at the Department's website. Each manifest will have a unique number. The completed Uniform Mobile Waste Tire Processor Manifest must contain the following information:

(1) The name, address, telephone number, and Certificate of Registration number and decal number, if applicable, of the location where waste tires were processed;

(2) The quantity of waste tires processed at each location as measured by:

(a) The actual number of waste tires by category (e.g. passenger car/light duty truck tires, semi-truck tires, etc); or

(b) The weight of waste tires measured in tons;

(3) The name, address, telephone number and Certificate of Registration number of the Mobile Waste Tire Processor and the Mobile Waste Tire Processor decal number of the equipment used to process the waste tires;

(4) The date(s) of processing;

(5) The signatures, under penalty of perjury, of the responsible party at the location where waste tires were processed and the mobile processor; and

(6) If the waste tires originated from an illegal waste tire site or from a private property.

D) Mobile Waste Tire Processors must:

(1) Make a copy of any paper or electronic Uniform Waste Tire Manifest available to the Department upon request.

(2) Maintain all manifests at the permanent business address of the Mobile Waste Tire Processor and available for inspection for three (3) years from the date of processing.

(3) Provide a copy of the paper or electronic Uniform Mobile Waste Tire Processor Manifest Form to the Waste Tire Generator/source of waste tires processed within thirty (30) days of completion of mobile processing.

10.7.6 MOBILE WASTE TIRE PROCESSOR FINANCIAL ASSURANCE

All Mobile Waste Tire Processors must establish and maintain financial assurance in the amount of ten thousand dollars ($10,000.00), unless they maintain financial assurance as a Waste Tire Processor, Waste Tire Collection Facility or a Waste Tire Monofill.

10.7.7 ANNUAL REPORT

(A) All Mobile Waste Tire Processors must submit an annual report to the Department and local governing body having jurisdiction by March 1st of each year on the Mobile Waste Tire Processor Annual Reporting Form (Form WT-8). The annual report must include the amount, by actual count or by actual weight in tons, of waste tires processed at each mobile processing location during the previous year.

(B) A Mobile Waste Tire Processor may claim that information or data submitted in the Waste Tire Annual Report should be withheld as Confidential Business Information ("CBI") or Trade Secret. The burden of proving that the information or data is protected as CBI or Trade Secret shall be upon the party asserting the claim.

10.7.8 MOBILE WASTE TIRE PROCESSOR SELF-CERTIFICATION

(A) The Department may require Mobile Waste Tire Processors to furnish additional information concerning compliance with the regulatory requirements of 6 CCR 1007-2 using a self-certification process.

(B) Any Mobile Waste Tire Processor who receives a Self-Certification Checklist from the Department must complete and return the checklist within the time specified in the instructions provided by the Department.

(C) The Department will provide Mobile Waste Tire Processors a reasonable amount of time to complete and return a checklist. At a minimum, the Mobile Waste Tire Processor will have fourteen (14) days from the date of receipt to return the checklist. A checklist is deemed returned on the date it is received by the Department. The Department may provide an extension of time to complete and return the checklist upon request.

(D) The self-certification checklist shall contain a certification in substantially the following form, which must be signed by an authorized representative of the Mobile Waste Tire Processor:

"I, the undersigned facility representative, certify that:

i. I have personally examined and am familiar with the information contained in this submittal;

ii. The information contained in this submittal is to the best of my knowledge, true, accurate, and complete in all respects; and

iii. I am fully authorized to make this certification on behalf of this facility.

I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment for willfully submitting false, inaccurate, or incomplete information."

10.7.9 MOBILE WASTE TIRE PROCESSOR ENGINEERING DESIGN AND OPERATIONS PLAN

(A) Each Mobile Waste Tire Processor must have an Engineering Design and Operations Plan, approved by the Department, which must, at a minimum, include all of the following:

(1) General:

(a) Nature of the activity conducted at each mobile processor site;

(b) The capacity and type of equipment to be used at each site;

(c) All methods of processing and storage;

(d) Means used to track inventory on a volume or weight basis;

(e) Security measures;

(f) How the Mobile Waste Tire Processor intends to implement the requirements listed in section 10.7.2 above; and

(g) Annual training requirements for all employees on all approved facility plans described in section 10.7.9, and how that training will be documented and verified.

(2) Emergency Response Plan which includes:

(a) General information including:

(i) The Mobile Processor's name, mailing address and telephone number; and

(ii) Potential emergencies and how the Mobile Processor will respond to these.

(b) An emergency contact list including the names and telephone numbers of the persons and appropriate agencies to be contacted in case of emergency, including:

(i) The Emergency Coordinator; and

(ii) Any additional numbers that may be needed.

(c) A description of emergency response procedures to be followed in the event of a fire or other emergency.

(3) Fire Prevention, Training and Firefighting Plan which:

(a) Includes resources to extinguish fires;

(b) Designates an onsite Emergency Coordinator;

(c) States how the Mobile Waste Tire Processor will comply with the applicable local fire codes or, where no code exists or the local code does not provide equivalent or greater level of fire protection, the fire code currently adopted by the Colorado Division of Fire Prevention and Control in the Department of Public Safety.

10.8 - STANDARDS FOR WASTE TIRE COLLECTION FACILITIES

10.8.1 GENERAL

The requirements of this section 10.8 apply to facilities where ten (10) or more waste tires are stored awaiting pickup by a Registered Waste Tire Hauler or processed by a Mobile Waste Tire Processor.

10.8.2 GENERAL STANDARDS FOR WASTE TIRE COLLECTION FACILITIES

(A) Any person who owns or operates a Waste Tire Collection Facility must maintain all weather access roads to those areas of active operation and as necessary to meet the Fire Protection, Training and Firefighting Plan required by subsection 10.8.9(A)(3) of these Regulations.

(B) Any person who owns or operates a Waste Tire Collection Facility must collect litter in order to avoid a fire hazard or a nuisance condition and control the growth of vegetation to minimize potential fuel sources.

(C) Any person who owns or operates a Waste Tire Collection Facility must implement security measures to preclude unauthorized entry.

(D) Any person who owns or operates a Waste Tire Facility Collection Facility must place prominent signs in English and any other language predominant in the area surrounding the facility must be posted in public view at the entrance to each Waste Tire Collection Facility with the name of the facility, the hours which the facility is open for public use, a listing of the wastes accepted at the facility, and a phone number for a 24 hour emergency contact.

(E) Any person who owns or operates a Waste Tire Facility Collection Facility must maintain a working telephone at each Waste Tire Collection Facility.

(F) During all stages of operation of a Waste Tire Collection Facility, the facility must have an attendant who is responsible for site activities.

(G) A Waste Tire Collection Facility owner or operator must immediately notify the Solid Waste and Materials Management Program within the Colorado Department of Public Health and Environment in the event of a fire or other emergency involving waste tires. Within two (2) weeks of this notification, the owner or operator must submit a written report describing the emergency to the Solid Waste and Materials Management Program. This report must describe the origins of the emergency, the actions that have been taken, actions that are currently being taken or are planned, results or anticipated results of these actions, and an approximate date of resolution of the issues generated by the emergency.

(H) Any person who owns or operates a Waste Tire Collection Facility must arrange for the commercial hauling or mobile processing of waste tires only with a waste tire hauler or mobile processor who is currently registered pursuant to these Regulations.

(I) Any person who owns or operates a Waste Tire Collection Facility must ensure that all waste tires collected at its facility are delivered to a registered waste tire generator, waste tire hauler, another waste tire collection facility, waste tire monofill, waste tire processor, an approved beneficial user of whole waste tires, a municipal or county owned waste tire collection area, or to a municipal or privately owned solid waste landfill operating in compliance with the Act and the Regulations or processed by a mobile processing. An owner/operator of a Waste Tire Monofill may ship whole waste tires to an End User who end uses whole waste tires for fuel or energy recovery.

(J) Any person who owns or operates a Waste Tire Collection Facility that is not also registered as a Waste Tire Processor or Waste Tire Monofill must not have onsite at any one time more than seven thousand five hundred (7,500) waste tires.

(K) Any person who owns or operates a Waste Tire Collection Facility must comply with the applicable local fire codes or, where no code exists or the local code does not provide equivalent or greater level of fire protection, the fire code currently adopted by the Colorado Division of Fire Prevention and Control in the Department of Public Safety.

(L) Any person who owns or operates a Waste Tire Collection Facility must comply with the facility's Engineering Design and Operations Plan (EDOP).

10.8.3 WASTE TIRE COLLECTION FACILITY REGISTRATION REQUIREMENTS

(A) No person shall operate a Waste Tire Collection Facility without having received a Certificate of Registration from the Department.

(B) Applications for Certificates of Registration must be submitted on Form WT-1 to the Solid Waste and Materials Management Program within the Hazardous Materials and Waste Management Division of the Department.

(C) Certificate of Registration applications for operation of a Waste Tire Collection Facility must include:

1) The business name of the Waste Tire Collection Facility and any other names under which the Waste Tire Collection Facility may do business;

2) The principal business address of the Waste Tire Collection Facility;

3) A business telephone number(s);

4) The name and address of the responsible officer of a corporate Waste Tire Collection Facility, or the owner(s) of a Waste Tire Collection Facility operating a proprietorship or a partnership; and

5) The signature and date of signature of the Waste Tire Collection Facility applicant.

(D) The Department will issue a Certificate of Registration to the applicant after approval of the application. Certificates of Registration must be maintained at the facility and made available for inspection.

(E) A Certificate of Registration is not transferable by the owner or operator of a Waste Tire Collection Facility to whom it was issued to any other person or entity.

(F) An owner or operator of a Waste Tire Collection Facility who has previously filed an application for a Certificate of Registration as a Waste Tire Collection Facility (Form WT-1) is required to notify the Department in writing whenever changes occur to the following:

(1) Ownership;

(2) Mailing address;

(3) Business name;

(4) Type of registration;

(5) Contact name;

(6) Phone number;

(7) The owner or operator of a Waste Tire Collection Facility will be operating at a new location not registered with the Department; or

(8) The owner or operator is no longer operating a Waste Tire Collection Facility at the location registered with the Department.

(G) The Department may cancel a Certificate of Registration of an owner or operator who no longer operates a Waste Tire Collection Facility at their registered location.

10.8.4 WASTE TIRE COLLECTION FACILITY DECAL

(A) An application for a Certificate of Registration pursuant to section 10.8.3 above, shall also serve as an application for a Waste Tire Collection Facility decal.

(B) An owner or operator of a Waste Tire Collection Facility will receive a Waste Tire Collection Facility decal from the Department with its Certificate of Registration.

(C) Waste Tire decals will have a unique number.

(D) An owner or operator of a Waste Tire Collection Facility must post their Waste Tire Facility decal in a prominent location at the address used to store/accumulate tires and where the decal is visible to the Waste Tire Hauler or Mobile Waste Tire Processor.

10.8.5 WASTE TIRE COLLECTION FACILITY MANIFEST REQUIREMENTS

(A) No owner or operator of a Waste Tire Collection Facility may accept a shipment of ten (10) or more waste tires from a Waste Tire Hauler without an accompanying manifest properly completed pursuant to section 10.3.4 of these Regulations unless they comply with section 10.1.3 (E).

(B) Manifests for all shipments of waste tires accepted by an owner or operator of a Waste Tire Collection Facility must be maintained on-site at that facility and available for inspection for three (3) years from the date of delivery.

(C) No owner or operator of a Waste Tire Collection Facility may offer a shipment of ten (10) or more waste tires without an accompanying manifest properly completed by the Waste Tire Hauler pursuant to section 10.3.4 of these Regulations.

(D) No owner or operator of a Waste Tire Collection Facility may offer waste tires for mobile processing without receiving a manifest properly completed by the Mobile Waste Tire Processor pursuant to section 10.7.5 of these Regulations.

(E) Manifests for all shipments of waste tires shipped off-site and accepted on-site by the owner or operator of a Waste Tire Collection Facility must be maintained on-site at that facility and available for inspection for three (3) years from the date of delivery.

10.8.6 WASTE TIRE COLLECTION FACILITY FINANCIAL ASSURANCE

All owners or operators of Waste Tire Collection Facilities must maintain financial assurance for any required reclamation and for closure and post-closure care of the Facility pursuant to section 4 of these Regulations.

10.8.7 ANNUAL REPORT

Any person who owns or operates a Waste Tire Collection Facility must submit an annual report to the Department and local governing body having jurisdiction by March 1st of each year on the Waste Tire Facility Annual Reporting Form (Form WT-5). The annual report must include, by actual count or by actual weight in tons, the amount of waste tires received at the facility, how many waste tires were shipped off-site from the facility for the preceding calendar year, and the total amount of waste tires accepted from unregistered waste tire haulers.

10.8.8 WASTE TIRE COLLECTION FACILITY SELF-CERTIFICATION

(A) The Department may require an owner or operator of a Waste Tire Collection Facility to furnish additional information concerning compliance with the regulatory requirements of 6 CCR 1007-2 using a self-certification process.

(B) An owner or operator of a Waste Tire Collection Facility who receives a Self-Certification Checklist from the Department must complete and return the checklist within the time specified in the instructions provided by the Department.

(C) The Department will provide the owner or operator of a Waste Tire Collection Facility a reasonable amount of time to complete and return a checklist. At a minimum, the owner or operator of a Waste Tire Collection Facility will have fourteen (14) days from the date of receipt to return the checklist. A checklist is deemed returned on the date it is received by the Department. The Department may provide an extension of time to complete and return the checklist upon request.

(D) The self-certification checklist shall contain a certification in substantially the following form, which must be signed by an authorized representative of the Waste Tire Collection Facility:

"I, the undersigned facility representative, certify that:

i. I have personally examined and am familiar with the information contained in this submittal;

ii. The information contained in this submittal is to the best of my knowledge, true, accurate, and complete in all respects; and

iii. I am fully authorized to make this certification on behalf of this facility.

I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment for willfully submitting false, inaccurate, or incomplete information."

10.8.9 WASTE TIRE COLLECTION FACILITY ENGINEERING DESIGN AND OPERATIONS PLAN

(A) Any person who owns or operates a Waste Tire Collection Facility must have and comply with an Engineering Design and Operations Plan approved by the Department, which must, at a minimum, include all of the following:

(1) General:

(a) Nature of the activity conducted at the facility;

(b) The capacity and type of equipment to be used at the facility;

(c) All methods of storage;

(d) Means used to track inventory on a volume or weight basis;

(e) Security measures;

(f) How the facility intends to implement the requirements listed in section 10.8.2 above; and

(g) Annual training requirements for all employees on all approved facility plans described in this section 10.8.9, and how that training will be documented and verified.

(2) Emergency Response Plan which includes:

(a) General facility information including:

(i) The facility name, mailing address and telephone number;

(ii) The facility operator's name, mailing address and telephone number; and

(iii) The property owner's name, mailing address and telephone number.

(b) An emergency contact list including the names and telephone numbers of the persons and appropriate agencies to be contacted in case of emergency, including:

(i) The Emergency Coordinator;

(ii) The Facility Owner;

(iii) The Facility Operator;

(iv) The Local Fire Authority; and

(v) Any additional numbers that may be needed.

(c) Emergency Equipment available on site, including specific capabilities and uses.

(d) A map showing the location of fire lanes, tire pile configurations, fire hydrants, power supply, and emergency response equipment.

(e) A description of emergency response procedures to be followed in the event of a fire or other emergency.

(3) Fire Prevention, Training and Firefighting Plan which:

(a) Includes specification of the Facility's fire lane locations and widths;

(b) Includes resources to extinguish fires;

(c) Designates a Facility Emergency Coordinator;

(d) Is approved by the local fire department/local fire jurisdiction or in areas where no local fire code exists, by the Colorado Division of Fire Prevention and Control in the Department of Public Safety; and

(e) Ensures the owner or operator of a Waste Tire Collection Facility complies with the applicable local fire codes or, where no code exists or the local code does not provide equivalent or greater level of fire protection, the fire code currently adopted by the Colorado Division of Fire Prevention and Control in the Department of Public Safety.

(4) Vector Control Plan which includes:

(a) Provisions for storage of tires in a manner which prevents the breeding and harborage of mosquitoes, rodents, and other vectors by any of the following means: (i) cover with impermeable barriers, other than soil, to prevent entry or accumulation of precipitation, or (ii) use of treatments or methods, such as pesticides, to prevent or eliminate vector breeding as necessary.

(b) Provisions ensuring that if pesticides are used in vector control efforts, they are used in accordance with the Pesticide Applicators Act, section 35-10-101, C.R.S.

10.8.10 CLOSURE AND POST-CLOSURE CARE OF WASTE TIRE COLLECTION FACILITIES

(A) Any person who owns or operates a Waste Tire Collection Facility must close and maintain the closed facility in accordance with sections 2.5, 2.6, and 10.8 of these Regulations.

(B) Any person who owns or operates a Waste Tire Collection Facility must prepare a closure plan as part of an Engineering Design and Operations Plan and must describe the steps necessary to close the Waste Tire Collection Facility at any point during its active life and at the end of the facility's active life. The owner or operator of a Waste Tire Collections Facility must remove all solid waste and residual contamination to meet unrestricted use concentrations. The closure plan, at a minimum, must include the following information:

(1) Provisions for removal of all solid waste at the site, including:

(a) Proposed plans and procedures for sampling and testing soil based on visual identification of staining or other indications of residual contamination;

(b) Provisions for sampling and analyses of soil for potential hazardous characteristics and provisions for final disposal. Soils will need to meet unrestricted use concentrations or background levels whichever is greater; and

(c) A schedule for completing all activities necessary to satisfy the closure criteria of this section.

(2) The owner or operator of all Waste Tire Collection Facilities must submit a Closure Certification Report to the Department at the time of final closure. The report must summarize the document the closure activities, including any analytical results, needed to support the unrestricted use condition of the facility.

(3) At least sixty (60) days in advance of the proposed closure date, the owner or operator must notify the Department and the local governing authority of the proposed closure date.

(4) The owner or operator must notify the general public at least sixty (60) days in advance of the proposed closure by placing signs of suitable size at the entrance to the site and facility.

(5) The owner or operator of the facility must complete closure activities of the facility in accordance with the closure plan and within one hundred eighty (180) calendar days following the final receipt of waste tires. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will take longer than one hundred eighty (180) calendar days and the owner/operator has taken and will continue to take all steps to prevent threats to human health and the environment.

(6) Closure Certification: Any person who owns or operates a Waste Tire Collection Facility must submit a closure certification report within sixty (60) calendar days of completion of closure activities which documents all the requirements and conditions of the closure plan have been achieved. The Report must be signed and sealed by a Colorado registered professional engineer and is subject to review and approval by the Department.

10.9 - STANDARDS FOR END USERS

10.9.1 GENERAL

The requirements of this section 10.9 apply to End Users who end use more than ten (10) tons of tire-derived product or who end use more than ten (10) tons of whole waste tires for energy or fuel in any one calendar year.

10.9.2 GENERAL STANDARDS FOR END USERS

(A) End Users must arrange for the commercial hauling or mobile processing of waste tires only with a Waste Tire Hauler or Mobile Waste Tire Processor who is currently registered pursuant to these Regulations.

(B) An End User that is not also registered as a Waste Tire Processor, Waste Tire Collection Facility or Waste Tire Monofill must not have onsite at any one time ten (10) or more whole waste tires.

10.9.3 END USER REGISTRATION REQUIREMENTS

(A) End Users described in section 10.9.1 must register with and receive a Certificate of Registration from the Department.

(B) Applications for Certificates of Registration must be submitted on Form WT-1 to the Solid Waste and Materials Management Program within the Hazardous Materials and Waste Management Division of the Department.

(C) Certificate of Registration applications for operation as an End User must include:

1) The business name of the End User and any other names under which the End User may do business;

2) The principal business address of the End User;

3) A business telephone number(s);

4) The name and address of the responsible officer of a corporate End User, or the End User operating a proprietorship or a partnership; and

5) The signature and date of signature of the End User applicant.

(D) The Department will issue a Certificate of Registration to the applicant after approval of the application. Certificates of Registration must be maintained at the facility and made available for inspection

(E) A Certificate of Registration is not transferable by the End User to whom it was issued to any other person or entity.

(F) An End User who has previously filed an application for a Certificate of Registration as an End User (Form WT-1) is required to notify the Department in writing whenever changes to the following occur:

(1) Ownership;

(2) Mailing address;

(3) Business name;

(4) Type of registration;

(5) Contact name;

(6) Phone number;

(7) End use is occurring at a new location not registered with the Department; or

(8) End use is no longer occurring at the location registered with the Department.

(G) The Department may cancel a Certificate of Registration of a person who is no longer an end user.

10.9.4 WASTE TIRE MANIFESTS

(A) No End User may accept a shipment of waste tires from a Waste Tire Hauler without an accompanying manifest properly completed pursuant to section 10.3.4 of these Regulations.

(B) Manifests for all shipments of waste tires accepted by an End User must be maintained on-site at that facility and available for inspection for three (3) years from the date of delivery.

(C) No End User may offer a shipment of waste tires without an accompanying manifest properly completed by the Waste Tire Hauler pursuant to section 10.3.4 of these Regulations.

(D) No End User may offer more waste tires for processing without receiving a manifest properly completed by the Mobile Waste Tire Processor pursuant to section 10.7.5 of these Regulations.

(E) Manifests for all shipments of waste tires shipped off-site and accepted on-site by an End User must be maintained on-site at that facility and available for inspection for three (3) years from the date of delivery.

10.9.5 ANNUAL REPORT

(A) End Users described in Section 10.9.1 must submit an annual report to the Department and local governing body having jurisdiction by March 1st of each year on the Waste Tire Facility Annual Reporting Form (Form WT-5). The annual report must include the amount, by actual count or by actual weight in tons, of waste tires and tire derived product received at the End User's facility during the previous year, and how many waste tires were used to generate energy or fuel during the previous year.

(B) An End User may claim that information or data submitted in the Waste Tire Annual Report should be withheld as Confidential Business Information ("CBI") or Trade Secret. The burden of proving that the information or data is protected as CBI or Trade Secret shall be upon the party asserting the claim.

10.10 - STANDARDS FOR THE MANAGEMENT OF USED TIRES

10.10.1 GENERAL

The requirements of this section 10.10 apply to any person who commercially accumulates, stores, transports, or dispenses used tires.

(A) All persons who accumulate, store, transport, or dispense used tires must develop and maintain on site and in the vehicle used for transport written criteria for distinguishing waste tires from used tires. Such criteria must be made available for inspection.

(B) All persons who accumulate, store, transport, or dispense used tires must clearly identify waste tires and used tires using the criteria developed pursuant paragraph (A) above.

(C) All persons who accumulate, store, transport, or dispense used tires must develop and maintain on site and in the vehicle used for transport written criteria for distinguishing used tires being held for sale in Colorado from used tires being held for sale outside Colorado. Such criteria must be made available for inspection.

(D) All persons who accumulate, store, transport, or dispense used tires must clearly identify used tires being held for sale in Colorado and used tires being held for sale outside Colorado according to the criteria developed pursuant to paragraph (C) above.

(E) All persons who accumulate, store, transport, or dispense used tires must organize used tires for sale in a manner that allows the inspection of each individual tire.

(F) Any person may claim that information or data contained in their written criteria described in this section 10.10.1 should be withheld as Confidential Business Information ("CBI") or Trade Secret. The Department will hold such information contained as CBI/Trade Secret pursuant to section 7-74-102, C.R.S. and section 18-4-408(2), C.R.S. The burden of proving that the information or data is protected as CBI or Trade Secret shall be upon the party asserting the claim.

10.11 WASTE TIRE FEE ADMINISTRATION

10.11.1 Any person who sells new motor vehicle or new trailer tires must collect and remit to the Department monthly the Waste Tire Fee pursuant to section 1.7.6 of these Regulations. This Waste Tire Fee applies to all new automobile, trailer, truck, motor home and motorcycle tires sold in Colorado.

10.11.2 Any person who has sold a new motor vehicle or new trailer tire in the previous twelve (12) months must submit to the Department monthly the applicable New Tire Fee Return Form available on the Department's website. The New Tire Fee Return Form must include, at a minimum, the following information:

(1) The account number;

(2) The time period (month/year) new tires were sold;

(3) The business name;

(4) The business mailing address;

(5) The business telephone number;

(6) The name of the business contact;

(7) The number of stores included in the New Tire Fee Return Form;

(8) If the New Tire Fee Return Form was amended;

(9) The number of tires sold (if applicable);

(10) The amount owed; and

(11) An authorized signature, title and date.

10.11.3 The payment of the Waste Tire Fee (if applicable) and the New Tire Fee Return Form must be delivered to the Department electronically or by hard copy and must be postmarked or submitted electronically by the 20th of each month for tires sold the previous month. Payments and forms received after the 20th of the month may be assessed a late fee of ten (10) percent in addition to the Waste Tire Fee.

10.11.4 Online payment of the Waste Tire Fee must be made by electronic check or credit card. Payments by mail must be by money order, cashier check or personal check. All other payment types, including cash payments or in-person payments will not be accepted.

10.11.5 The Department may deny a submittal made pursuant to this Section 10.11 if the Department determines a person has submitted an incorrect payment amount. In such cases, the Department will reimburse the incorrect payment and the person must resubmit the New Tire Fee Return Form with the correct payment within thirty (30) days.

10.11.6 Any person who aggregates monthly fees from multiple stores must submit monthly to the Department the Monthly New Tire Self Certification Form (Form WT-9) available on the Department's website. Form WT-9 must be delivered to the Department electronically or by hard copy and must be postmarked or submitted electronically by the 20th of each month for new tires sold the previous month.

10.11.7 Any person who sells new motor vehicle or new trailer tires must retain and make available to the Department for review any documentation or records (such as receipts or invoices provided to customers or transaction records) related to new tire sales to ensure compliance with Section 30-20-1043 (1)(a), C.R.S., and the Regulations on the sales of these tires. Documentation and/or records must be retained for three (3) years from the date of sale.

10.11.8 Every receipt or invoice from the purchase of a new vehicle tire or new trailer tire must have the following statement:

(1) In the largest bold-face type capable base on point-of-sale software, on existing invoice printers possible, or from a permanent stamp, not to exceed fifteen points: "SECTION 30-20-1403, COLORADO REVISED STATUTES, REQUIRES RETAILERS TO COLLECT A WASTE TIRE FEE SET BY THE SOLID AND HAZARDOUS WASTE COMMISSION ON THE SALE OF EACH NEW MOTOR VEHICLE TIRE AND EACH NEW TRAILER TIRE."

(2) The $1.25 Waste Tire fee for each new tire purchased.

10.12 WASTE TIRE END USERS FUND

10.12.1 GENERAL RULES

A. General Rules of Eligibility:

1. The following are eligible to apply for the rebate from the End Users Fund (the "Fund"):

   (a) Colorado registered End Users of Colorado-generated tire-derived products or Colorado generated waste tires who end use in Colorado;

   (b) Colorado Retailers who sell certain Colorado-generated tire-derived products made in Colorado from Colorado-generated waste tires; and

   (c) Colorado registered Waste Tire Haulers who are also a Colorado registered End User or contracted with a Colorado registered End User that is also a Colorado registered Waste Tire Hauler.

2. A business or person who is required to be registered with the Secretary of State's office to conduct business in the State of Colorado must be in "Good Standing" to be eligible for the rebate.

3. Once the Department has paid a rebate or denied a rebate on a particular quantity of tire-derived product or whole waste tires used for energy or fuel, every part of that particular quantity of tire-derived product or whole waste tires is no longer eligible for payment of the rebate. This includes payments made before the adoption of these Rules.

4. Once the Department has paid a rebate or denied a rebate on a particular quantity of waste tires hauled from a rural county to a Colorado registered End User, those same hauled waste tires may be eligible for a rebate as described in 10.12.1 (A) (3), as long as the Waste Tire Hauler and End User are knowingly operating in good faith.

5. When waste tires are processed at the location of an illegal disposal with funds from the Waste Tire Administration, Enforcement, Market Development, and Cleanup Fund, neither the retail sale of the tire-derived product generated or end use of the tire-derived product created is eligible for a rebate from the Fund.

6. When waste tires are removed from the location of an illegal disposal with funds from the Waste Tire Administration, Enforcement, Market Development, and Cleanup Fund and processed at a separate location not using funds from the Waste Tire Administration, Enforcement, Market Development and Cleanup Fund, the retail sale of the generated tire-derived product and the end use of the tire-derived product created is eligible to receive a rebate from the Fund so long as all the other eligibility requirements are met.

7. When waste tires are removed from the location of an illegal disposal with funds from the Waste Tire Administration, Enforcement, Market Development, and Cleanup Fund from a rural county to a registered Waste Tire Processor, Waste Tire Collection Facility, Waste Tire Monofill, or Waste Tire End User, those waste tires are not eligible for a Waste Tire Hauler rebate from the Fund.

8. Any end use of waste tires or tire-derived products must meet the performance criteria of Section 8.6.2 (E) to be eligible to receive a rebate from the Fund.

B. General Rules for End Users

1. To be eligible to receive a rebate for end using tire-derived products or whole waste tires to generate energy or fuel, a person must be currently registered with the Department as an End User. Any applicant who end uses tire-derived products or whole waste tires to generate energy or fuel prior to registration with the Department is not eligible for a rebate.

2. The Department will pay the rebate to an End User only if the end use complies with all local requirements in the jurisdiction where end use occurs. Any rebate issued to an End User where it is later determined that the end use of the tire-derived products or waste tires by the End User was not approved by the jurisdiction where the end use occurred, the Department may request that the applicant return the rebate to the Fund.

3. Eligible and Ineligible End Uses. Table 10-12.01 states which end uses are eligible for which category of rebate and some potential uses that are ineligible.

4. To receive the End User rebate for the end use of waste tire bales:

   a. The applicant must submit the End Users Tire Bale Approval Form, available on the Department’s website.

C. General Rules for End Users applying for a Waste Tire Hauler rebate

1. To be eligible to apply for a rebate, a person must be registered with the Department as a Waste Tire Hauler and an End User. Any hauling of waste tires prior to registration with the Department is not eligible for a rebate.

2. Only waste tires originated and hauled from rural counties (population of fewer than 60,000 residents) are eligible for a rebate for the Waste Tire Hauler and End User. Counties that meet this standard will be listed at the Colorado Department of Local Affairs “Population Totals for Colorado Counties” website: https://demography.dola.colorado.gov/population/population-totals-counties/. The most current population statistics will be used to determine if a county is considered rural for the purpose of waste tires being eligible for a rebate.

3. The End User applying for a Waste Tire Hauler rebate must provide independent Waste Tire Manifests (Form WT-2) and weight tickets for those waste tires hauled from a rural county to a registered End User to be eligible for a rebate.

4. To receive the Waste Tire Hauler rebate for the hauling of waste tires, the applicant must submit the Waste Tire Hauler application, available on the Department's website.

D. General Rules for Retailers

1. To be eligible to apply for a rebate, a Retailer must have a current Colorado retail sales tax license pursuant to Section 39-26-103, C.R.S. Any tire-derived product sold prior to the Retailer having a Colorado retail sales tax license is ineligible for a rebate from the Fund.

2. To be eligible for a Retailer rebate, the retail sale must be to the ultimate consumer and the Retailer must collect sales tax unless the ultimate customer is otherwise exempt from paying sales tax.

3. Only tire-derived product that is sold to ultimate customers is eligible for a rebate for the Retailer from the Fund.

4. Eligible and Ineligible Retailers. Table 10-12.01 states which sales are eligible to receive the retailer rebate and some potential sales that are ineligible.

Table 10-12.01 Eligible End Uses and Retailing for the End Users Fund

This table describes potential scenarios for waste tire and tire-derived product end use and retailing. This Table does not create new rights or eligibilities or discuss every potential scenario; it attempts to explain the rights and eligibilities established in statute. Any activity not covered by this Table may still be eligible for a rebate at the Department's discretion pursuant to these regulations and section 30-20-1401, C.R.S., *et seq.*

Column Breakdown Explanation:
Tier I: Crumb rubber and tire-derived fuel for energy recovery
Tier II: Molded products and rubber mulch
Tier III: Waste tire bales, alternative daily cover, tire-derived aggregate
Not eligible for a rebate: Scenarios does not qualify for a rebate under the current statute or regulations

Table 10-12.01 Eligible End Uses and Retailing for the End Users Fund

	Then you are eligible for			
Scenario, if you are ……	**Tier 1**	**Tier 2**	**Tier 3**	**Not Eligible for a rebate**
An End User who end uses tire-derived fuel or whole waste tires for energy recovery or a fuel substitute at a permitted facility (cement kilns, biofuel plants, electric arc furnaces, or power plants).	X			
An End User who end uses crumbed rubber to manufacture a final product (e.g. molded products, cement, deck boards, furniture, etc.) with a demonstrated sale to an ultimate customer.	X			
An End User who installs a tire-derived product that includes crumbed rubber (e.g. asphalt, concrete, etc.) into a construction, highway, or paving application for a commercial or industrial purpose.	X			
An End User who installs crumbed rubber on a playground, athletic field, or for a landscaping project on a residential, commercial or public property.	X			
A retailer who sells crumbed rubber to the ultimate customer who will use the crumb rubber for its final intended use (e.g. infill on an athletic field, etc.). Applicant charges sales tax for this transaction, or does not charge sales tax for this transaction because the consumer is an exempt organization (charity, government agency, or another tax exempt entity).	X			
An End User who installs rubber mulch on a playground or landscaping project on a residential, commercial or public property.		X		
An End User who end uses rubber mulch to manufacture a final product (e.g. molded products, deck boards, furniture, wattles, etc.) with a demonstrated sale to an ultimate customer.		X		
A retailer who sells rubber mulch to the ultimate customer who will use the rubber mulch for its final intended use (e.g. landscaping, playground, etc.). Applicant charges sales tax for this transaction, or does not charge sales tax for this transaction because the consumer is an exempt organization (charity, government agency, or another tax exempt entity).		X		
A retailer who sells molded products to the ultimate customer who will use the molded products for its final intended use (e.g. furniture, deck boards, erosion control products, etc.). Applicant charges sales tax for this transaction, or does not charge sales tax for this transaction because the consumer is an exempt organization (charity, government agency, or another tax exempt entity).		X		

An End User who is end using waste tire bales bound with stainless or galvanized steel baling wire, that are installed to facilitate waste tire bale stability and longevity, are in accordance with general engineering and agricultural practices, as allowed by state laws and regulations and local ordinances and meet requirements of Section 10.13. Only waste tire bales end uses listed on Table 3 - Pre-Approved Beneficial Uses table on the department's website are eligible for a rebate.			X	
An End User who received and uses a tire-derived product as alternative daily cover at a landfill permitted by the state and is approved for use of tire shreds for alternative cover for municipal solid waste. The tire shreds must meet specification standards as Type-B tire-derived aggregate as established by the ASTM Standard D6270.			X	
An End User who installs tire-derived aggregate for civil engineering projects (highway embankments, permanent cover for a landfill cell, leachate cells at landfills, base material for roads, etc.). The tire-derived aggregate must meet specification standards as Type-A tire-derived aggregate as established by the ASTM Standard D6270.			X	
A waste tire processor who is processing whole waste tires into any tire-derived product.				X
Selling whole waste tires.				X
Selling waste tire bales.				X
Selling or end using sidewalls used for silage covers or any other approved end use.				X
Sale or end use of any steel generated and separated from a processing of a waste tire.				X
Reusing any used or whole waste tire as a vehicle tire, trailer tire, or any usage of husbandry.				X
Burning a whole waste tire or tire-derived product at a non-permitted facility and without recovering the energy.				X
Creating buffings from the recapping or retreading of a tire.				X
Recapping or retreading a tire for any vehicle or non-vehicle use.				X
Using buffings generated from the recapping or retreading process.				X
Disposing of waste tires or tire-derived products.				X
Using whole waste tires, upon CDPHE beneficial use approval, for erosion control, stormwater management, sound damping, grade fill, corrals, fencing, home construction, and other approved uses.				X
Using whole waste tires or tire-derived products for a non-beneficial use.				X
Using whole waste tires or tire-derived products out-of-state.				X

10.12.2 APPLICATION PROCEDURES

A. A person applying for a rebate must comply with all the provisions of this Section 10.12.2.

B. An applicant for a rebate must file a complete application on Department Form WT-11, providing at a minimum:

1. Applicant's name and address.

2. Name and location where end use, retail sale, or waste tire hauling occurred.

4. Certification the waste tires were Colorado-generated.

5. For End Users:

(a) The source of waste tires or tire-derived product;

(b) A description of the end use; and

(c) The End User’s Waste Tire Certificate of Registration number.

6. For End Users applying for a Waste Tire Hauler rebate:

(a) A list of rural locations that waste tires were hauled from;

(b) A list of End Users that received the hauled waste tires;

(c) A description of the end use of the hauled waste tires;

(d) The Waste Tire Hauler’s Waste Tire Certificate of Registration number; and

(e) The End User’s Waste Tire Certificate of Registration number.

7. For Retailers:

(a) A list of consumers the Retailer sold the tire-derived product to;

(b) A description of the tire-derived products sold; and

(c) Proof the Retailer collected sales tax on the retail sale or that the retail sale was exempt from sales tax.

8. The amount of waste tires or tire-derived product sold by a retailer, end used, or hauled by weight in tons.

9. The time period in which the waste tires or tire-derived product were sold by a retailer, end used, or hauled.

10. Other supporting documentation required by the Department.

11. Authorized signatures and initials where required.

C. **Timing of Rebate Applications**:

1. Applications for rebates will be accepted no later than the stated due date on the application and/or Department's website.

2. Applications will only be accepted for activities that occurred in the previous calendar quarter period.

3. The Department will only accept applications send by mail, courier, or delivered to the Department's mailroom (must be stamped and signed and/or initialed by mailroom personnel as received).

4. Applications received or postmarked after the due date will be automatically denied.

5. The Department will not accept emailed or faxed applications.

6. The Department will not accept adjustments for processed applications from prior calendar quarter periods.

7. An applicant can only receive a rebate for activities occurring in the current fiscal year.

D. Any applicant's application must include a minimum of 10 tons end used, retail sale, and/or waste tires hauled to be eligible for a rebate.

E. The Department may deny a rebate to an applicant who has received funding from the Waste Tire Administration, Enforcement, Market Development, and Cleanup Fund if paying from both funds will result in double paying for the same activity.

F. Applicants must provide weight tickets from a scale that meets the requirements of the Colorado Measurement Standards Act, Sections 35-14-101 through 35-14-134, C.R.S. to document weights of waste tires or tire-derived product end used, tire-derived product sold in a retail sale, or waste tires hauled from a rural county. Other verifiable forms of documentation may be acceptable on a case by case basis based on approval of the Department's internal audit unit and/or the Colorado Attorney General's Office.

10.12.3 PROCESSING OF APPLICATIONS

The Department will review applications according to a four-step process: (1) review for completeness, (2) review for compliance with applicable laws and regulations, (3) review for eligible end uses, retail sales and waste tire hauling, and (4) determination of a rebate amount.

A. **Completeness**: If an application is not complete or if supporting documentation is insufficient, then the Department will notify the applicant and grant the applicant a five (5) business day grace period to submit the missing information. The Department may defer paying rebates to all applicants until adequate information is received. If the applicant does not submit adequate information in the prescribed time period, then the Department may deny a rebate for that quarter.

B. **Compliance**: After the Department has determined all applications submitted in a given quarter have been received, it will conduct a compliance verification to ensure each applicant is in compliance with all applicable environmental laws and regulations and was in compliance with all applicable environmental laws and regulations during the time period for which they are seeking a rebate. Applicants must notify the Department of any pending or active compliance issues to assist in the compliance verification. Any applicant who does not notify the Department of any known compliance issues may lead to automatic denial of any submitted or pending applications.

C. **Eligibility**: After compliance verification, the Department determines which applicants are eligible for rebates.

D. **Rebate amount**: The Department will calculate the amount of rebate per Section 10.12.5 of these Regulations and notify each applicant of its determination.

10.12.4 APPEALS PROCESS

A. **For approved applications**, if an applicant believes the Department has made a calculation error in the response to an approved application, the applicant must notify the Department in writing within five (5) business days of receiving the Department's response. The notice must contain:

1. A copy of the original submitted application and supporting documents;

2. A copy of the Department's response;

3. A detailed description describing the believed error;

4. Copies of any documents supporting the detailed description.

The Department will review the notice and attached documents and may further investigate the matter and ask for additional information from the applicant. Any additional information requested information would be due within five (5) business days of the Department's request. Any incomplete appeal submittals or inability to submit additional requested information must lead to an automatic denial of the appeal by the Department.

The Department will only accept appeals sent by mail, courier, or delivered to the Department's mailroom (must be stamped and signed or initialed by mailroom personnel as received). Appeals received or postmarked after the due date will be automatically denied without review. The Department will not accept emailed or faxed appeals.

1. If the Department concludes an error has been made and the Department has not yet paid the rebate that quarter, then the Department will reinstate the application and recalculate the payment before paying any rebates that quarter.

2. If the Department concludes an error has been made and the Department has already paid the rebates that quarter, then the Department will notify the applicant and reimburse the applicant from the next quarter's rebate money, as available, according to the following method:

   (a) The Department will determine what the applicant should have been paid had the Department not erred;

   (b) The Department will pay the applicant that amount from the next quarter's money; and

   (c) The next quarter's money will be reduced accordingly.

3. If the Department concludes no calculation error was made, then it will notify the applicant that its previous determination was not in error and is final. This determination is subject to appeal pursuant to Section 24-4-106, C.R.S.

B. **For denied applications**: If an applicant believes his or her application was wrongly denied, then the applicant must, within five (5) business days of denial, submit the following to the Department:

1. A copy of the denied application and supporting documents;

2. The denial letter;

3. A statement explaining why the applicant believes the Department erred; and

4. All other information the applicant believes relevant.

The Department will review the notice and attached documents and may further investigate the matter and ask for additional information from the applicant. Any additional information requested information would be due within five (5) business days of the Department's request. Any incomplete appeal submittals or inability to submit additional requested information must lead to an automatic denial of the appeal by the Department.

The Department will only accept original appeals send by mail, courier, or delivered to the Department's mailroom (must be stamped and signed or initialed by mailroom personnel as received). Appeals received or postmarked after the due date will be automatically denied without review. The Department will not accept emailed or faxed original appeals.

1. If the Department concludes it erred in denying the application, and the Department has not yet paid the rebate that quarter, then the Department will reinstate the application and recalculate the payment before paying the rebate that quarter.

2. If the Department concludes it erred in denying the application and the Department has already paid the rebate that quarter, then the Department will notify the applicant and reimburse the applicant from the next quarter's money, as available, according to the following method:

   (a) The Department will determine what the applicant should have been paid had the Department not erred;

   (b) The Department will pay the applicant that amount from the next quarter's money; and

   (c) The next quarter's money will be reduced accordingly.

3. If the Department concludes no error was made, then it will notify the applicant that its previous determination was not in error and is final. This determination is subject to appeal pursuant to Section 24-4-106, C.R.S.

10.12.5 REBATE AMOUNT

A. The Department will pay the rebate amount on a per-ton basis.

B. Beginning April 1, 2020 through December 31, 2021, the amount of the rebate is as follows:

   (1) Tier 1: $50 per ton;

   (2) Tier 2: $25 per ton;

   (3) Tier 3: $12.50 per ton; and

   (4) Waste Tire Hauler: $12.50 per ton.

C. If the tons approved for the rebate in any one quarter multiplied by the amount of the rebate rates in Section 10.12.5(B) exceeds the balance of the Fund, then the Department must reduce the per ton amount of the rebate that quarter to a rate that will not cause a deficit in the Fund. The Department must reduce the per ton rates proportionally until all rebate funds are exhausted.

Any applicant who does not receive a full rebate due to not enough moneys in the Fund cannot later claim the missing funds in a later application submittal or request.

(D) Twenty-five percent of the expected annual rebate amount will be held in reserve before paying the first quarterly rebate.

10.12.6 ENFORCEMENT

A. A person who applies for a rebate is subject to a review by the Department at any time. Applicants must allow access to all records related to waste tire management activities during normal business hours for the purpose of determining compliance with these rules for five (5) years from the date of receiving a rebate. Any applicant who refuses a review by the Department must have any submitted or pending application denied and will be ineligible for any future rebates from the Fund.

B. If an applicant provides information that constitutes a trade secret, confidential personnel information, or proprietary commercial or financial information, in accord with Section 24-72-204, C.R.S., then the applicant may request the Department withhold such documents from disclosure in the event the Department receives a request for records in accord with the Colorado Open Records Act, section 24-72-101 et seq. All such documents must be clearly marked with the term “Proprietary Information” on each appropriate page. Records marked as containing trade secret, confidential, personnel, or proprietary information that do not actually contain such information may be released pursuant to an Open Records Act request.

C. In addition to any other penalty imposed by law, any applicant who knowingly or intentionally provides false information to the Department when applying for a rebate must be ineligible to receive any future rebates from the Fund and moneys from the Waste Tire Administration, Enforcement, Market Development and Cleanup Fund. The Department may refer any evidence obtained during the investigation to the Colorado Attorney General Office or other law enforcement agencies for further review and potential prosecution.

D. The Department may deny the rebate to any person who is out of compliance with any State or Federal environmental laws, rules or regulations.

E. The Department may hold any application due to compliance issues for the duration of the fiscal year in which that it is submitted, pending the resolution of the compliance issue. If at the end of the fiscal year the compliance issue has not been resolved, then the Department may deny any applications being held. Any applicant who knowingly withholds information on current compliance advisories, orders, or other formal notifications may have any submitted or pending applications denied.

10.13 STANDARDS FOR END USERS AND LANDOWNERS OF WASTE TIRE BALES

A. End Users or landowners of waste tire bales must maintain the integrity of individual waste tire bales at all times. Loose whole or cut waste tires from broken waste tire bales are viewed as waste tires and are subject to the applicable requirements of Section 10 of these rules.

B. Broken waste tire bales must be repaired within 90 days of discovery, or alternatively removed from the property for proper disposal within 90 days of discovery.

C. Beneficial use of waste tire bales must be approved by the Department prior to placement, unless the end use is listed as pre-approved beneficial use per the Pre-Approved Beneficial Uses Table 3 listed on the Department's website.

D. The Department may notify the local fire jurisdiction when waste tire bales are placed on any property for end use.

E. End Users or landowners end using waste tire bales are subject to Department inspection.

F. Once waste tire bales are no longer serving their beneficial use, the End User or landowner must remove the waste tire bales within 120 calendar days. The waste tire bales must be delivered to a registered waste tire facility and manifested in accordance with Section 10 requirements. An End User must cancel their End User registration within 90 days of the removal of all waste tire bales.

G. End Users or landowners of waste tire bales whom have received rebate monies from the Fund (past or present) may be ineligible for waste tire cleanup funds for the cleanup of waste tires or tire-derived products for which rebates were received. The Department may consider exceptions in the instance of an emergency or change of ownership.

H. Waste tire bales used in any manner not on the Department's *Pre-Approved Beneficial Use List Table 3*, or approved by the Department on a case-by-case basis is considered waste tire disposal and is subject to applicable parts of this Section 10.

SECTION 11 SOLID WASTE INCINERATION FACILITIES

11.1 GENERAL PROVISIONS

The following provisions apply to solid waste incineration facilities and privately operated Solid Waste-to-Energy facilities not under contract to a county and/or municipality. Solid Waste-to-Energy incineration facilities sited and operated by a county and/or municipality are regulated under the Solid Waste-to-Energy Incineration Systems Act and regulations promulgated thereunder. Approval by the Hazardous Materials and Waste Management Division shall not relieve the applicant from its obligation to comply with the requirements of other public agencies including but not limited to the Air Pollution Control Division, the Water Quality Control Division and local government permitting and zoning authorities.

11.1.1 The Department shall approve or deny the facility within 180 days of the application being determined complete by the Department. The Department will make the determination as to whether or not the application is complete within 30 days of receipt. If the application is deemed incomplete, the Department shall notify the applicant of such deficiencies. The applicant must submit the required information within 20 days or the application will automatically be denied.

11.2 ENGINEERING DESIGN AND OPERATION REQUIREMENTS:

The engineering design and operations report shall include at a minimum, the following:

11.2.1 General Information

(A) Name, address and telephone number of the owner and operator of the solid waste incineration facility.

(B) Location of the site and facility giving the county and legal description of the facility, mailing address, and township, section and range to the nearest one-quarter (¼) of a quarter-section.

(C) Area of the site.

(D) General description of the solid waste incineration facility.

(E) Discussion of the facilities service area, including transportation corridors and surrounding access.

(F) Listing of all permits or construction approvals received or applied for including:

(1) Water Quality Permits;

(2) Air Quality Permits;

(3) Local Wastewater Treatment or other Local Permits.

11.2.2 Maps and related information:

(A) The application shall contain a topographic map which shows names of present land owners, property boundaries, including easements, rights of way, internal access roads, and other property interests for the proposed solid waste incineration site and adjacent area; and a description of title, deed, liens or usage restrictions affecting the proposed solid waste incineration facility.

(B) Other major maps and documentation shall be provided to show:

(1) The land use, zoning and population densities of the area within one mile of the proposed facility.

(2) The regional and site drainage conditions including the location of any floodplain boundaries, springs, streams, lakes, wetlands, constructed or natural drains and irrigation ditches located on the proposed site and or adjacent area which could affect the site;

(3) Counties and municipalities in which the site and facility is proposed to be located.

(4) The location of barriers, fences and other similar structures;

(5) All solid waste storage and loading areas;

(6) The location of any scales and weigh stations to be used in the operation;

(7) The location, size and use of buildings and related facilities which will be used in the operation, including their horizontal and vertical dimensions;

(8) Utilities to be installed at the facility.

(C) The applicant shall submit all construction plans, cross-sections, specifications and details.

(D) The Department may request additional information if necessary to complete its review of the facility.

11.2.3 Engineering Design Information The application shall contain a detailed description of:

(A) The waste stream including sources, general waste composition, estimated volumes of solid waste to be processed, recycled or landfilled, estimated BTU values and estimated seasonal and compositional variability of the waste stream or specifications, volumes and estimated BTU values for refuse derived fuel if used in place of unprocessed solid waste.

(B) A flow chart showing the mechanical components of the system and a materials balance depicting all process variables including waste volumes, energy, ash, air and water inputs and outputs.

(C) Expected materials to be stored prior to sale, recycling or disposal, the minimum and maximum volumes and weight, minimum and maximum time frames for storage and specific plans for separation and storage of these materials and for disposal of any bulky, unmarketable or noncombustible items.

(D) The orientation, interior dimensions and specifications of the tipping floor, storage area and ingress and egress there to.

(E) The size, type, capacity and general specifications and anticipated performance of equipment for the handling, processing and storage of waste, energy recovery, air emissions control and process monitoring systems.

(F) Any water collection, storage, treatment or discharge facilities to be used in the process.

(G) Identification of sufficient support equipment to maintain operation of equipment functions.

(H) The anticipated recovery rate of marketable materials or energy.

(I) A detailed engineering description of the incinerator including:

(1) Type of incinerator and manufacturer's name and model number;

(2) Construction materials and specifications;

(3) Description of auxiliary fuel system and type of auxiliary fuel to be used;

(4) Capacity of feed charging system;

(5) Description of the combustion control system: air control, warning systems, auxiliary fuel/waste feed cutoff, waste moving/mixing system;

(6) The design and operating conditions for the proposed incinerator for the most efficient combustion of solid waste including:

(a) Expected carbon monoxide (CO) level in the stack exhaust gas

(b) Waste feed rate

(c) Combustion zone temperature and location and method of measurement.

(d) Expected stack gas volume, flow rates and temperatures.

(e) Computed residence time for waste in the combustion zone

(f) Proposed waste feed cut off-limits based on identified significant operating parameters.

(g) Air pollution control equipment, operations variables and normal operating ranges, methods of monitoring, and actions to be taken in the event the equipment and instruments exceed normal operating ranges.

(J) The actual or expected physical and chemical composition of the ash or residue produced by operation of the facility including moisture density relationships, particle size distribution, volume and weight of ash generated.

(K) The proposed location and method for disposal, storage or processing of the ash, scrubber residue, or quench or wash water produced by operation of the facility.

(L) A plan for disposal or processing of waste if the facility is temporarily shut down. A description of the maintenance plan, design redundancy, and plans to minimize unscheduled downtime.

(M) Utilities to be installed at the facility.

(N) Plans and designs for operating and maintaining the proposed facility to prevent fires, explosions, emissions of toxic gases or other emergencies.

(O) A closure plan for decommissioning of the facility addressing removal of all unprocessed solid waste, ash, wash water or any other process residuals.

(P) Other information the Department may require including, but not limited to, calculations and drawings.

11.2.4 Facility Operating Plan The application shall contain a facility operating plan which includes:

(A) A narrative description of the general operating plan for the proposed facility, including hours of operation, daily operational methodology, procedures for facility start-up, scheduled and unscheduled shutdown operations, including utilization of process and instrumentation controls for start-up and shutdown, anticipated throughput design capacity, and expected life of the facility.

(B) Provisions for alternative waste handling or disposal during periods when the facility is not in operation, including procedures to be followed in case of equipment breakdown, such as the use of standby equipment, extension of operating hours or arrangements for diversion of waste to other facilities.

(C) Description of procedures to be used for removal of solid waste or ash from the system in the event of mechanical system breakdown.

(D) An operational safety, fire prevention and contingency plan to minimize hazards to human health and the environment resulting from fires, explosions, or release of pollutants into the air, onto the soil or into ground or surface water.

(E) Provisions assuring that the facility does not accept hazardous waste and also assuring that only wastes approved by the Department are accepted by the facility.

(F) The number, classification and job descriptions of personnel projected to be employed at the facility when operating at full capacity.

(G) A plan for hiring and training equipment operators and other personnel in the design and operation of the facility.

(H) Measures to prevent hazards or nuisances from vectors, litter, odors, dust, noise or other potential sources.

(I) An inventory and location of all facility records and as built drawings.

(J) Provisions for providing monitoring results to the Department.

11.3 OPERATING REQUIREMENTS

11.3.1 The solid waste program of the Department and the local governing body having jurisdiction shall be notified in writing of the anticipated date of initial start-up of the facility not more than 60 days nor less than 30 days prior to such date and shall be notified in writing of the actual date of commencement of start-up within 15 days after such date.

11.3.2 A solid waste incineration facility must be operated in accordance with the operating procedures specified in the approved engineering design and operations report and in the air emissions permit. Facilities incinerating solid waste not typical of municipal solid waste will be evaluated on a case-by-case basis for specific handling and combustion requirements to ensure the waste is handled and burned in a manner that minimizes possible environmental or health impacts.

11.3.3 Design, Construction, Operation and Monitoring of Solid Waste Incineration Facilities

All solid waste incineration facilities shall be designed, constructed, operated, and monitored in compliance with all applicable requirements of the Colorado Air Pollution Prevention and Control Act, § § 25-7-101 to 610, C.R.S., and its implementing regulations promulgated by the Air Quality Control Commission, 5 CCR 1001-1 to 22. All monitoring results shall be reported quarterly to the Department and the local governing body having jurisdiction, except that upset conditions, and corrective action taken in response to the upset condition, shall be reported to the Department and the local governing body having jurisdiction as soon as possible, but no later than one business day after the occurrence of the upset condition.

11.3.4 No hazardous waste as defined in Section 25-15-101(9) C.R.S. (1989) of the Colorado Hazardous Waste Act may be received at the solid waste incineration facility.

11.3.5 “Wastes” that are incinerated at solid waste incineration facilities must have specific approval from the Hazardous Materials and Waste Management Division and the Air Pollution Control Division with the exception of asbestos, which must be handled and disposed of according to Section 5 of the Colorado Regulations pertaining to Solid Waste Disposal Sites and Facilities.

11.3.6 Municipal solid waste must be stored inside an enclosed structure or building under negative air pressure which provides a minimum of three days storage, considering both volume (cubic yards) and weight (tons) at the installed design capacity of the combustion units. Storage of recovered or rejected, oversized and bulky non combustible material must be in accordance with the approved engineering design and operations plan for the facility.

11.3.7 All solid waste shall be handled in such a way as to maximize complete combustion of the waste and minimize any potential for fire, explosion, safety hazard or adverse public health effects. Adequate visual screening must be conducted to ensure removal of hazardous or other unacceptable wastes such as large bulky appliances, asbestos not approved for incineration at the facility.

11.3.8 Operations must be conducted in such a way as to prevent litter and nuisance conditions from occurring. Refuse should be confined to the tipping area and utilized on a first-in first-out basis.

11.3.9 Floors must have adequate drainage and be free of standing water.

11.3.10 The facility must be inspected daily or more frequently as necessary to detect problems with vectors, litter, fugitive dust, odors or equipment malfunctions, with inspection records maintained and corrective action implemented when problems are detected.

11.3.11 Discharge of quenching and/or scrubber water must be in compliance with all state and local water quality control regulations and sewer district requirements.

11.3.12 The alternative waste handling or backup disposal plan as approved in the Engineering Design and Operations report must be implemented for periods of facility shutdown.

11.3.13 Access to the facility must be controlled at all times to preclude unauthorized disposal.

11.3.14 All equipment operators and personnel shall be trained in the design and operation of the facility.

11.3.15 Ash shall be handled in closed conveyors and containers at the facility and shall be stored and transported in a manner to prevent leakage and dispersal.

11.3.16 No person shall close an approved solid waste incineration facility without notifying the Department and the local governing body having jurisdiction in writing at least 120 days prior to the closure date.

11.3.17 The facility shall be closed in accordance with all new applicable regulations in effect at the time of closure and with the closure plan, which if amended, must be submitted for review and approval by the Department 120 days prior to closure.

11.3.18 The operator of an approved municipal Solid Waste-to-Energy facility shall notify the general public at least 60 days in advance of the proposed closure date by placing signs of suitable size at the entrance of the facility.

11.4 RECORDS

11.4.1 The following records must be maintained by the facility and made available to the Department and the local governing body having jurisdiction.

(A) Operating records - (1) A daily log or an equivalent tracking system must be maintained by the facility operator to record operational information such as: (A) Hours of operation; (B) Total number of incoming vehicles using the facility; (C) Quantities of refuse derived fuel, residential and commercial refuse received, industrial other waste streams, and residues or recyclables shipped for disposal or recycling; (2) Records to identify sources of the incoming waste and to support the mechanism to preclude hazardous or unacceptable wastes from entering the facility; (3) Equipment maintenance or replacement; (4) Variations from approved operational procedures; (5) Inspections performed at the facility and any necessary action taken in response to them.

(B) Monitoring Records - The operator must maintain records of all stack tests and continuous monitoring results for the facility operations, any testing of ash residues, and information regarding water discharges pursuant to city ordinances, pretreatment standards or COPDES permits.

(C) Personnel Training Records

(D) Other Records:

(1) As-built construction details;

(2) Contingency plans and emergency procedures;

(3) Maintenance plans and schedules

11.5 REQUIREMENTS FOR MANAGEMENT OF RESIDUAL ASH FROM SOLID WASTE INCINERATION FACILITIES.

11.5.1 All residual ash from solid waste incineration facilities and associated waste water and fugitive dust handling and disposal shall comply with all applicable laws and regulations, and with all applicable local zoning laws and ordinances.

11.5.2 Residual ash shall be dewatered to remove any free liquids prior to shipment to a disposal site in accordance with the approved engineering design and operations plan for the incineration facility.

11.5.3 Transportation of ash shall occur in equipment designed and utilized to prevent leakage, spillage or dispersion of the material during transportation.

11.5.4 Residual ash from solid waste incineration facilities must either be beneficially used or reused, as defined in paragraph 11.5.5, or finally disposed in accordance with all applicable Solid Waste Disposal Sites and Facilities Act regulations.

11.5.5 For beneficial use or reuse of residual ash from a solid waste incineration facility to be approved by the Department after consultation with the local governing body having jurisdiction, the following must be demonstrated by the applicant:

(A) That the waste material can meet the same specifications as alternative non-waste materials, and

(B) That the beneficially used waste materials will not release contaminants into the environment.

SECTION 12 WATER TREATMENT PLANT SLUDGE

12.1 GENERAL PROVISIONS

The following general provisions apply to all water treatment plant sludge disposal facilities except as provided in 12.1.4 for facilities in operation prior to adoption of these regulations.

12.1.1 (A) Any person who disposes of water treatment plant sludge, receives water treatment plant sludge for disposal or permits water treatment plant sludge to be disposed of on any facility or property which he operates or possesses shall do so in compliance with the requirements of Sections 1 through 3, and 12 of these regulations.

(B) If a conflict exists between the requirements of Sections 1 through 3 and the requirements of this Section 12, the requirements of Section 12 shall control.

(C) Notwithstanding the provisions of (A) and (B) Above, a person who disposes of water treatment plant sludge, receives water treatment plant sludge for disposal or permits water treatment plant sludge to be disposed of on any facility or property which he operates or possesses is not required to comply with subsections 1.4.4, 2.1.8, 2.1.9, 2.3, 3.1.1 of these regulations.

12.1.2 Each water treatment plant sludge disposal facility shall comply with Colorado health laws and with the standards, rules and regulations of the Department and the water quality control commission and with all applicable local zoning laws and ordinances.

12.1.3 These regulations do not apply to water treatment plant sludges which are beneficially used under the authority of the Colorado Domestic Sewage Sludge Regulations.

12.1.4 (A) Surface and ground water monitoring may be required by the Department at existing facilities where impairment of existing or future use of surface or ground water is determined to be probable.

(B) Those facilities in operation prior to adoption of these regulations may be required to come into compliance with these regulations upon a determination by the Department after consultation with the local governing body having jurisdiction that such facilities are causing impairment of existing or future use of surface water or ground water.

12.2 APPLICATION INFORMATION ALTERNATIVES

For the purposes of this Section 12 only as applied to the disposal of water treatment plant sludge, a person who disposes of water treatment plant sludge, receives water treatment plant sludge for disposal or permits water treatment plant sludge to be disposed of on any facility or property which he operates or possesses shall also comply with the following modifications to Sections 2 and 3 of these regulations:

12.2.1 If the total alpha activity of the sludge exceeds 40 picocuries per gram of dry sludge, the sludge generator shall contact the Department's Radiation Control Division for further disposal guidance.

12.2.2 A facility that operated as a water treatment sludge landfill shall: provide compacted fill material; provide adequate cover with suitable material; provide surface drainage designed to prevent ponding of water, wind erosion; prevent water and air pollution; and upon being filled, shall be left in a condition of orderliness and aesthetic appearance capable of blending with the surrounding area. In the operation of such a site and facility, the sludges shall be distributed in the smallest area consistent with handling traffic to be unloaded and shall be placed in the most dense volume practicable.

12.2.3 Adequate fencing, natural barriers or other security measures to preclude public entry shall extend around the entire perimeter of the facility and shall include a lockable gate or gates.

12.2.4 All ground water monitoring points shall be installed in accordance with applicable rules and regulations of the “Water Well and Pump Installation Contractor's Act,” Title 37, Article 91, Part 1, CRS 1973 as amended. The facility operator shall be responsible for conducting a program of ground water sampling to document and monitor the water quality in such wells.

12.2.5 Ground water quality concentrations shall be monitored regularly, as deemed necessary by the Department on a site specific basis.

12.2.6 The type and quantity of material to be used as intermediate cover shall be identified in the engineering design and operations report of each water treatment plant sludge facility.

12.2.7 The following information shall be provided in the engineering design and operations report of each water treatment plant sludge facility: the type and quantity of material that will be required for use as a liner, if a liner is required; and the type and quantity of material that will be required for use as final cover, including its compaction density, moisture content specifications and the design permeability.

12.2.8 Maps and plans, drawn to a convenient common scale, showing the location and depth of cut for liners (if required), shall be submitted as part of the engineering design and operations report.

12.2.9 Maps and plans, drawn to a convenient common scale, showing the intermediate and final cover, shall be submitted as part of the engineering design and operations report.

12.2.10 Maps and plans, drawn to a convenient common scale, showing the location of all proposed monitoring points for surface water and ground water, shall be submitted as part of the engineering design and operations report.

12.2.11 Construction details for all proposed monitoring points for surface water stations and ground water monitoring wells shall be submitted as part of the engineering design and operations report.

12.2.12 The daily operating hours of the facility, the frequency of operation including the number of days per month and the number of months per year, the daily volume in cubic yards to be received on operating days, and the expected life of the site shall be included in the engineering design and operations report.

12.2.13 The engineering design and operations report shall specify the systems of records to be maintained documenting incoming waste volumes, water quality monitoring results, as-built construction details and variations from approved operating procedures.

12.2.14 The amounts and sources of water to be used on-site for the control of nuisance conditions, construction purposes, and personnel use shall be identified in the engineering design and operations report.

12.2.15 Provisions for the monitoring of ground water and surface water after closure shall be identified in the engineering design and operations report.

12.3 SLUDGE ACCEPTANCE CRITERIA

In addition to compliance with Sections 1 through 3 of these regulations, a person who disposes of water treatment plant sludge, receives water treatment plant sludge for disposal or permits water treatment plant sludge to be disposed of on any facility or property which he operates or possesses shall also comply with the following:

12.3.1 Facilities shall not accept water treatment plant sludges containing any free liquids. U.S. Environmental Protection Agency laboratory method 9095, the “Paint Filter Liquids Test” , shall be used to determine compliance with the requirements of this subsection.

12.3.2 Facilities shall not accept water treatment sludges having a pH less than 6.0 standard units.

12.3.3 No water treatment plant sludge disposal facility shall accept waste of any other kind without approval from the County Board of Commissioners or City governing body and the Department.

SECTION 13 MEDICAL WASTE

13.1 SCOPE AND APPLICABILITY

13.1.1 This Section 13 applies to all medical waste generators, transporters and treatment, storage and/or disposal facilities, unless otherwise exempted, that generate, store, consolidate, treat, process, transport or dispose of non-hazardous (i.e., not regulated under § 25-15-101 et. seq. CRS) medical waste as defined in Section 1.2 of these regulations.

13.1.2 Household medical waste generators shall be exempt from this Section 13.

13.2 GENERAL PROVISIONS

13.2.1 Under no circumstance shall a site or facility that generates, stores, consolidates, treats, processes, transports or disposes of medical wastes become a health or environmental hazard or allow nuisance conditions as defined in Section 1.2 of these regulations to develop. Medical waste that causes nuisance conditions shall be immediately refrigerated, frozen, treated and/or disposed.

13.2.2 Sites and facilities that generate, store, consolidate, treat, process, transport or dispose of medical wastes must comply with all local, state and federal laws, regulations, ordinances and other requirements.

13.2.3 All records required by this Section 13 must be maintained onsite for three (3) years in an easily retrievable format.

13.2.4 There shall be no compaction of infectious waste before treatment.

13.2.5 Incorporation by Reference.

(A) References to material incorporated by reference in this Section 13 refer to 2011 editions unless otherwise expressly noted, and do not include any later amendments or editions.

(B) Information concerning all materials or regulations incorporated by reference may be obtained by contacting:

Regulatory and Program Authorization Coordinator
Colorado Department of Public Health and Environment
Hazardous Materials and Waste Management Division
4300 Cherry Creek Drive South
Denver, CO 80246-1530

(C) The specific materials or regulations incorporated by reference in these regulations are listed in the Statement of Basis and Purpose for this rulemaking, and are available for examination on the Internet and at the Department.

13.3 CERTIFICATE OF DESIGNATION REQUIRED

13.3.1 Exemptions - the following sites and facilities shall be approved sites and facilities for which it shall not be necessary to obtain a Certificate of Designation unless the Department determines that the site or facility may adversely affect human health and the environment:

(A) Medical waste generators that temporarily accumulate their own medical waste for onsite treatment or offsite shipment to a commercial medical waste treatment, storage or disposal facility, that are in compliance with:

(1) Section 13.4 Standards for Medical Waste Generators.

(2) Section 13.9 Standards for Medical Waste Disposal.

(3) Section 13.10 Transportation Requirements.

For purposes of this section, "temporarily accumulate" means the generator may:

(i) Store putrescible medical waste onsite for up to thirty (30) calendar days without refrigeration if the waste is packaged consistent with US DOT requirements for infectious substances (49 CFR Part 173.196 or 173.197) prior to being placed in the accumulation area.

(ii) Store putrescible medical waste onsite for up to ninety (90) calendar days if the waste is packaged consistent with US DOT requirements for infectious substances (49 CFR Part 173.196 or 173.197) and placed in refrigeration (45 degrees Fahrenheit or less) or frozen.

(iii) Store non-putrescible medical wastes, such as sharps containers, waste pharmaceutical containers and trace chemotherapy waste, onsite for up to ninety (90) calendar days if the waste is packaged in containers that are taken out of service and are in good condition and secured to prevent unauthorized access.

A Certificate of Designation is required for accumulation and/or storage of medical waste onsite by the generator if all of the requirements of this subpart 13.3.1 (A) are not met.

(B) Medical waste generators that operate equipment for treatment of medical wastes generated onsite or that is generated through the normal operation of their business at other locations operated by the same business and self-transported by private motor carrier from their other locations for consolidation and/or treatment that are in compliance with:

(1) Section 13.3.1(A).

(2) Section 13.6 Standards for Medical Waste Treatment.

Such facilities may also treat household medical waste collected as a community service.

(C) Those entities that conduct medical waste consolidation and storage activities as a community service limited to only households, such as a household medical waste collection program, a sharps collection program or a pharmaceutical take-back program, if they are in compliance with the requirements for medical waste generators in Section 13.3.1(A). Such entities must ensure consolidated wastes are sent to an approved medical waste treatment or disposal facility in compliance with Section 13.9, or other solid waste management program as authorized by the Department.

(D) Those facilities for hazardous waste disposal that have been issued a Certificate of Designation pursuant to Title 25 Article 15 Parts 1, 2, 3 and 5, CRS, as amended, and are in compliance with 6 CCR 1007-3.

13.3.2 No person, unless exempted under Section 13.3.1, shall operate a medical waste consolidation, storage, treatment, processing or disposal facility without having received a Certificate of Designation in accordance with Section 1.6 of these regulations.

13.3.3 All applications for a Certificate of Designation must be submitted for review and approval by the Department and the local governing body with jurisdiction and include an Engineering Design and Operations Plan prepared in accordance with Section 13.7 of these regulations.

13.3.4 The owner or operator of an existing solid waste disposal site or facility for which a Certificate of Designation has been issued shall submit an amended Engineering Design and Operations Plan for approval prior to receiving untreated medical waste as a new waste stream for consolidation, storage, treatment, processing or disposal.

13.4 STANDARDS FOR MEDICAL WASTE GENERATORS

13.4.1 Medical Waste Generators are required to develop and implement an onsite medical waste management plan for each facility. At least one employee at the facility must be designated with the responsibility of implementing the medical waste management plan.

(A) The plan must identify the types of medical waste generated and where each type of medical waste is generated in the facility.

(B) The plan must describe how each type of medical waste will be identified, segregated, packaged, stored, treated, transported and disposed.

(C) The plan must include a contingency plan for responding to spills or loss of containment of medical waste in order to minimize hazards to human health and the environment.

(D) The plan must identify medical waste training that will be provided to employees.

13.4.2 The plan must be maintained onsite in an easily retrievable format and be available for inspection by the regulatory agency, the transporter and the disposal facility. The plan must be updated whenever changes related to medical waste generation or handling occur.

13.5 STANDARDS FOR COMMERCIAL MEDICAL WASTE STORAGE FACILITIES

13.5.1 Commercial medical waste storage facilities shall be used for the consolidation and short-term storage of untreated medical wastes from multiple medical waste generators that will be taken to an approved medical waste treatment or disposal facility. It does not include storage of medical waste for less than seventy-two (72) hours incidental to transportation to an approved treatment, storage or disposal facility.

13.5.2 Commercial medical waste storage facilities must comply with:

(A) Section 13.1 Applicability.

(B) Section 13.2 General Provisions.

(C) Section 13.3 Certificate of Designation.

(D) Section 13.7 Engineering Design and Operations Plan Requirements.

(E) Section 13.8 Operating Requirements.

(F) Section 13.10 Transportation Requirements.

13.6 STANDARDS FOR MEDICAL WASTE TREATMENT

13.6.1 Treatment must be appropriate to the type of medical waste. All waste must be handled in a manner to ensure complete treatment of the waste such that no portion of the container or bulk volume of waste remains untreated.

(A) Acceptable methods of treatment for infectious wastes shall be those methods that render the waste non-infectious. Such methods may include but are not limited to thermal (e.g., autoclaving, incineration, heat, microwaving, macrowaving, pyrolysis or gasification), chemical (e.g., chlorine or chlorine derivatives, ozone, enzymes or sodium hydroxide), irradiation, other mechanisms designed for specific medical waste categories (e.g., gas/vapor sterilization), or other methods as approved by the Department that will not present an endangerment to facility personnel or the public.

(1) Infectious waste must be treated to achieve at least a 4 Log_{10} reduction in *Bacillus stearothermophilus, Bacillus subtillis or Bacillus atrophaeus* endospores and at least a 6 Log_{10} reduction in *Mycobacterium phlei or Mycobacterium bovis*.

(2) Encapsulation, solidification and/or compaction without rendering the waste non-infectious are not adequate forms of treatment.

(B) Acceptable methods of treatment for trace chemotherapy and waste pharmaceuticals include incineration, encapsulation, stabilization or other method approved by the Department.

13.6.2 The treatment technology manufacturer must incorporate recognized standards for determining appropriate validation and verification testing methodology and protocols to verify for the Department that the overall technology and the specific equipment perform as designed and are capable of consistently treating the waste to meet at least the minimum treatment standards in 13.6.1 of these regulations. This information must be made available to the prospective medical waste treater for inclusion in their medical waste management plan or application for Certificate of Designation as applicable.

13.6.3 Unless exempted in Section 13.3.1 of these regulations, medical waste treatment facilities must comply with:

(A) Section 13.1 Applicability.

(B) Section 13.2 General Provisions.

(C) Section 13.3 Certificate of Designation.

(D) Section 13.7 Engineering Design and Operations Plan Requirements.

(E) Section 13.8 Operating Requirements.

(F) Section 13.9 Standards for Disposal.

13.7 ENGINEERING DESIGN AND OPERATION PLAN REQUIREMENTS FOR COMMERCIAL STORAGE AND TREATMENT FACILITIES

13.7.1 Prohibited waste.

(A) Hazardous wastes as defined in Section 25-15-101(6) of the Colorado Revised Statutes and Part 261 of the Colorado Hazardous Waste Regulations (6 CCR 1007-3).

(B) Radioactive material as defined in the Rules and Regulations Pertaining to Radiation Control (6 CCR 1007-1).

(C) Controlled substances as defined by the Controlled Substances Act (21 United States Code (USC) Sec. 802(6)), unless the facility is also a US Drug Enforcement Administration (US DEA) registrant and is authorized to accept and manage these substances. Controlled substances from household medical waste generators are exempt from this Section 13.7.1.

13.7.2 Engineering Design and Operations Plan – Commercial medical waste storage and treatment facilities shall provide an Engineering Design and Operations Plan for review and approval to the Department and local governing body having jurisdiction prior to the acceptance of any untreated medical waste. The plan shall describe in detail how the facility will comply with all applicable requirements in these regulations. All engineered features of the facility design shall be reviewed and sealed by a registered Colorado Professional Engineer.

(A) The Engineering Design and Operations Plan shall contain the following general facility data:

(1) The names, mailing addresses, telephone numbers and e-mail addresses of the facility owners and operators.

(2) The names, addresses, telephone numbers and e-mail addresses of one or more persons having authority to take actions at the facility in the event of an emergency.

(3) The mailing address and physical address of the facility, including the county and legal description as well as the quarter-section, section, township and range.

(4) A general description of the medical waste storage or treatment facility.

(5) A listing of all permits or construction approvals received by or applied for, including air quality, water quality, local wastewater treatment, and other State or local permits.

(B) The Engineering Design and Operations Plan shall contain, at a minimum, the following maps:

(1) A vicinity map, drawn at a recognized engineering scale, that has been certified by a registered Colorado Professional Engineer showing access and service roads to the facility; zoning and land use; present land owners; property boundaries; easements; rights of way; residences; wells; location of floodplain boundaries; locations of all springs, lakes, streams, wetlands, constructed or natural drainages, and irrigation ditches; and all man-made or natural features relating to the facility within a 1/2-mile radius.

(2) A site map, drawn at a recognized engineering scale, that has been certified by a registered Colorado Professional Engineer showing facility boundaries; location, size, and use of existing or proposed structures or other storage units; areas to be used for unloading, storage, and loading of wastes; general process flow; existing or proposed water diversion, collection, conveyance, treatment, storage and discharge facilities; and any other information requested if necessary to complete review of the plan.

(C) The Engineering Design and Operations Plan shall contain the following operational information.

(1) A narrative description of the general operating plan for the facility, including hours of operation, daily operations methodology, and expected facility capacity.

(2) Descriptions of the job titles, duties, responsibilities and training requirements of all employees who manage medical waste at the site.

(3) For sites where medical waste treatment is to be conducted, the plan shall also include:

(i) Technology validation process - A detailed description of the technology validation process steps and the waste treatment process including capacity of the unit, composition and volume of waste the technology is designed to treat and the composition and volume of waste representing the worst case scenario for this technology. For infectious waste treatment processes, this shall also include a description of the time intervals and locations for biological indicator samples that were placed in the load, and the procedures for testing the biological indicator samples to determine final concentrations after treatment. This information should be provided by the technology manufacturer.

(ii) Technology verification process – A detailed description of the verification testing procedures to be used on a routine basis by the waste treater to verify for the Department that the technology remains effective onsite under actual operating conditions.

(a) Onsite verification testing must be completed on representative test loads before production startup of a newly installed treatment system at the waste treater's facility. The waste treater must maintain documentation of onsite verification testing and monitoring results for each test load, including any deviations from the critical limits and corrective actions taken.

(b) For infectious waste treatment processes, verification procedures shall use biological monitoring. Parametric monitoring may be allowed if the technology manufacturer has successfully demonstrated to the Department that appropriate critical limits are met to achieve adequate biological inactivation and that the parameters to be monitored are directly correlated to biological inactivation.

(c) A description of the treatment technology including manufacturer's name and equipment model number or description, standard operating procedures which have been proven to be effective, and a description of preventive maintenance procedures. For infectious waste treatment processes, a description of the required residence time for waste in the treatment zone and a description of the type and frequency of biologic and/or parametric verification monitoring, including calibration of parametric controls, should also be included.

(d) The waste treater must provide a detailed written operations and maintenance plan that includes the technology manufacturer's specifications and instructions.

(e) The waste treater must follow the written operations and maintenance procedures provided by the technology manufacturer and maintain documentation of onsite treatment and monitoring results for each waste load, including any deviations from the critical limits and corrective actions taken in the event of a deviation.

(iii) A detailed engineering description of the facility with a flow chart showing the components of the treatment system.

(iv) A description of annual operator training requirements including loading and unloading of the treatment system to minimize occupational exposure and physical injury, emergency procedures for handling malfunctioning systems, and documentation requirements for system failure during operation.

(v) A description of waste loads that can be processed, waste feed capacity and rate, and limitations on waste composition and types.

(vi) A description of control systems including air flow, waste moving/mixing systems, procedures to be used for facility startup and scheduled and/or unscheduled shutdown, warning systems and waste feed cutoff, if applicable.

(4) A waste characterization and acceptance plan, including waste screening methods to be used, waste exclusion procedures and rejection of prohibited wastes, handling methods for wastes that require special or non-standard handling, and a contingency plan for handling prohibited wastes.

(5) A detailed description of the on- and offsite controls to be used to prevent nuisance conditions, including dust, noise, mud, odors, and control of disease vectors including the attraction, breeding and emergence of insects, birds or rodents.

(6) A waste handling and storage plan, including a detailed description of the unloading, monitoring, handling and storage practices to be used and information on methods to secure access and set up barriers to prevent unauthorized entry to areas where waste is stored.

(i) All exterior doors, gates or lids to medical waste storage areas shall be marked with the biohazard symbol, if applicable, and the words "Caution – Medical Waste Storage Area – Unauthorized Persons Keep Out". Letters on signs shall be at least two inches in height and legible.

(ii) Medical waste shall be stored in a manner and location that maintains the integrity of the packaging and provides protection from water, precipitation and wind. Storage units shall be constructed of easily cleanable materials that are impervious to liquids and resistant to corrosion from disinfectants, have adequate drainage, and are free of standing water.

(iii) Medical waste shall be stored for no more than fourteen (14) calendar days from the date of receipt at the storage facility before being transported to an approved treatment or disposal facility.

(iv) If odors or other nuisance conditions develop, the waste shall immediately be placed in an enclosed unit maintained at or below 45 degrees Fahrenheit or transported to an approved treatment or disposal facility.

(7) A description of the tracking system to be used to maintain control of waste flow. The system shall include: the source, volume, and types of waste received; the date the waste was received; for storage facilities, the date the waste was shipped to the treatment or disposal facility; for treatment facilities, the date the waste was treated and sent for disposal. Documentation, including copies of waste tracking logs, shipping papers and/or manifests, shall be retained for a minimum of three (3) years from the date the waste was shipped from the facility.

(8) An operational safety, fire prevention and contingency plan to minimize hazards. The plan shall include:

(i) A plan for the alternate management of wastes in the event the facility is not in operation due to equipment failure or closure due to unforeseen circumstances, or if the permitted capacity of the facility will be exceeded.

(ii) Cleanup procedures to be implemented in the event of a loss of containment, spill or release.

(iii) The location and use of all spill response supplies and personal protective equipment and the methods to be used to manage recovered waste and contaminated spill response supplies and personal protective equipment.

(iv) The designated person or persons responsible for implementing the plan.

(v) Spill reporting provisions.

(vi) A fire protection plan in compliance with local fire codes.

(9) A personnel training plan identifying training to be received by each employee based on the responsibilities associated with their job duties. Training shall be conducted, at a minimum:

(i) When the employee starts a new position or receives additional duties related to medical waste management.

(ii) When new medical waste management procedures are implemented.

(iii) On an annual basis.

Employee training shall include, but not be limited to: medical waste identification, bloodborne pathogens, waste containment and labeling; storage requirements; equipment operations including equipment startup, shutdown, maintenance, and associated procedures to assure safe operation; and roles and responsibilities when implementing the facility contingency plan. Training for employees that prepare waste for shipment shall be consistent with US DOT requirements.

(10) A closure plan providing information on the actions to be taken at the time of final facility closure, including:

(i) The Department, the local governing body having jurisdiction, and customers serviced by the facility shall be notified in writing at least sixty (60) calendar days in advance of the proposed closure date. If applicable, signs of a suitable size notifying drop-off customers of the site closure shall be placed in a conspicuous area at the entrances to the facility at least sixty (60) calendar days in advance of the proposed closure date.

(ii) The facility shall not accept new or additional waste shipments for storage and/or treatment fourteen (14) calendar days prior to the date of anticipated closure. All wastes shall be transported offsite to an approved solid waste site or facility within fourteen (14) calendar days of receipt of the final waste load.

(iii) Waste storage units and waste management areas shall be cleaned to disinfect and/or remove visible traces of medical waste.

(iv) Within thirty (30) calendar days of completing closure activities, the owner and operator shall provide written notification to the Department and the local governing body having jurisdiction to document that proper treatment and disposal of all wastes has taken place in accordance with the approved closure plan and that facility closure standards have been achieved.

13.7.3 Fees and financial assurance - All medical waste facilities subject to regulation under this Section 13.7 shall be subject to applicable solid waste fees as required under Section 1.7 and financial assurance as required under Section 4 of these regulations.

13.7.4 Inspections - All medical waste facilities subject to regulation under this Section 13.7 shall be subject to inspection and enforcement requirements in Section1.9 of these regulations.

13.8 OPERATING REQUIREMENTS FOR COMMERCIAL STORAGE AND TREATMENT FACILITIES

13.8.1 Facilities shall notify the Department and the local governing body having jurisdiction in writing of the anticipated date of startup not more than sixty (60) calendar days and not less than thirty (30) calendar days prior to the date of startup.

13.8.2 Facilities shall be operated in accordance with their approved Engineering Design and Operations Plan and all other applicable permits.

13.8.3 Facilities shall conduct daily inspections to detect disease vectors, leaks, odors, dust, equipment malfunctions and other site conditions that may cause nuisance conditions to occur. If problems are found during the inspection, measures to correct the problems shall be implemented immediately. Inspections and any corrective measures taken shall be documented by the facility in an easily retrievable format.

13.8.4 Access controls shall be used to prevent unauthorized access to areas where wastes are stored, treated or otherwise managed.

13.8.5 Record Keeping - The facility shall maintain the following records onsite in an easily retrievable format:

(A) The facility's Certificate of Designation.

(B) The facility's approved Engineering Design and Operations Plan.

(C) For storage facilities - copies of waste manifests or shipping papers showing incoming volumes of waste, waste types, container types, types of transport, generator names and addresses, dates of waste pick/drop-off, and destinations for waste.

(D) For treatment facilities - copies of waste manifests or shipping papers showing incoming volumes of waste, waste types, container types, types of transport, generator names and addresses, treatment methods, dates of pickup /drop-off and treatment, copies of all verification testing results and results of treatment system monitoring applicable to the type of treatment, and final disposition of the treated waste.

(E) Records indicating instances when the facility's plan to prevent acceptance or treatment of prohibited wastes was put into effect and actions taken, including disposal destinations for such wastes.

(F) A daily log or equivalent mechanism indicating inspections and necessary actions taken to resolve conditions not in compliance with the approved Engineering Design and Operations Plan.

(G) For treatment facilities, copies of all verification testing results and results of treatment system monitoring applicable to the type of treatment.

(H) Copies of personnel training records.

13.8.6 The facility shall be closed in accordance with the closure plan in its approved Engineering Design and Operations Plan.

13.9 STANDARDS FOR MEDICAL WASTE DISPOSAL

13.9.1 Final disposition of medical waste consisting of recognizable human anatomical remains must be by interment, cremation, incineration or entombment, or by acceptance by a representative of the State Anatomical Board.

13.9.2 Infectious waste.

(A) Untreated infectious waste from non-household sources may not be disposed of in a solid waste disposal site or facility unless the facility has an approved Engineering Design and Operations Plan that specifically allows these wastes.

(B) Once treated to achieve the required standard of biological inactivation, infectious waste is considered to have been rendered non-infectious and may be discharged into a sanitary sewer system that provides secondary treatment of waste or be disposed of with other non-medical and non-hazardous solid waste as appropriate.

(C) Discharge to a sanitary sewage treatment system is permitted only if discharged in accordance with the wastewater treatment facility's requirements, as applicable, and may require notification to and approval from the wastewater treatment authority.

(D) Treated infectious waste must be clearly identified as treated waste or the waste treater must notify the waste transporter and disposal facility in writing that their general solid waste includes infectious waste that has been treated to render it non-infectious.

13.9.3 Trace chemotherapy waste and waste pharmaceuticals.

(A) Trace chemotherapy waste must be disposed of in an approved solid waste disposal site or facility that has an approved Engineering Design and Operations Plan that specifically allows this waste, or may be incinerated at an approved solid or hazardous waste incinerator.

(B) Waste pharmaceuticals that are not hazardous wastes and that do not contain controlled substances may be:

(1) Sent to a reverse distributor that collects unused, expired and recalled pharmaceuticals for proper disposal or returned to the manufacturer for credit.

(2) Sent to a mail-back service for proper disposal.

(3) Treated to encapsulate or stabilize the waste at an approved medical waste treatment facility prior to disposal in a solid waste disposal site or facility. All activities involved in the disposal of treated pharmaceuticals shall be conducted in a manner that minimizes the potential to release the waste or damage the containers holding the waste.

(4) Incinerated at an approved solid or hazardous waste incinerator.

or

(5) Must be disposed of in an approved solid waste disposal site or facility that has an approved Engineering Design and Operations Plan that specifically allows this waste.

(C) Hazardous waste pharmaceuticals must be managed in accordance with the Colorado Hazardous Waste Act (Title 25 Article 15 Parts 1, 2, 3, and 5 CRS, as amended) and implementing regulations (6 CCR 1007-3).

(D) Waste pharmaceuticals that contain controlled substances must be managed in accordance with the US DEA requirements in 21 CFR 1307.11 or 1307.21.

(E) Waste pharmaceuticals that are both hazardous waste and contain controlled substances must be managed in accordance with the Colorado Hazardous Waste Act (Title 25 Article 15 Parts 1, 2, 3, and 5 CRS, as amended) and implementing regulations (6 CCR 1007-3) and the US DEA requirements in 21 CFR 1307.11 or 1307.21.

13.10 TRANSPORTATION REQUIREMENTS

13.10.1 Except as provided for in Section 13.3.1, medical waste may only be transported to an approved commercial medical waste storage, treatment or disposal facility.

13.10.2 Spills or releases of medical waste which occur during transportation shall be cleaned up immediately by the transporter according to generally accepted procedures. Spills to the environment or those exposing workers or the general public to potential infection shall be reported to the Colorado Department of Public Health and Environment, to the local governing body having jurisdiction, and to the wastewater treatment facility if discharged to the sewer system, within twenty-four (24) hours. A written summary report describing the spill or release and the actions taken to remediate it shall be submitted to the Department within fifteen (15) calendar days of the incident.

SECTION 14 COMPOSTING

SECTION 14.1- GENERAL PROVISIONS

14.1.1 Scope and Applicability

This section 14 applies to all persons, local governing authorities, and municipalities who compost solid waste. Compliance with this Section 14 does not relieve any facility owner or operator from his/her obligation to comply with any other applicable federal, state or local statutes, regulations, requirements or ordinances.

Sections 1 and 2 of these Solid Waste Regulations are applicable to all solid waste composting facilities, unless specifically otherwise noted herein. For ease of use, this Section 14 includes those Section 2 requirements that usually apply to the operation of composting facilities; however, there may be unique features at a particular facility that trigger additional site-specific Section 2 requirements not referenced in this Section 14.

Facilities subject to this Section 14 must obtain a certificate of designation (CD) unless otherwise exempt per Section 30-20-102, C.R.S., or these Regulations. The CD will include, at a minimum, the engineering, design and operations plan (EDOP) for the facility required by this Section 14. Facilities that require a CD must follow the CD application process in Section 30-20-103, C.R.S., and these Regulations. See section 1.6 of these Solid Waste Regulations. Facilities subject to this Section 14, but exempt from the requirement to obtain a CD, must provide an EDOP to the Department for review and approval prior to implementation or maintain a Composting Plan onsite. Nothing in this section shall preclude any review action that may be required by the local governing authority under appropriate local ordinance or rule. See sections 1.3.9 and 1.4.1 of these Solid Waste Regulations.

Section 30-20-100.5(1)(a), C.R.S. provides that proper disposal of solid wastes is a matter of mixed statewide and local concern. Because a facility may also need to comply with applicable local requirements in addition to this Section 14, facilities should check with the local governing authority for their submittal, notification, and approval requirements. The phrase “Department and local governing authority approval, as appropriate,” as used in this Section 14 acknowledges that the Solid

Waste Act and Regulations establish shared authority over solid waste. Facilities should review Title 30, Article 20, Part 1, C.R.S., and the Solid Waste Regulations to determine which authorities apply. Compliance with this Section 14 shall not relieve the facility owner or operator from the obligation to comply with the facility’s CD and any other applicable federal, state or local statute, regulation, requirement or ordinance.

14.1.2 Compost Feedstock Types

The categories described below are not intended to be all-inclusive, but rather are set forth to assist owners and operators in determining the appropriate classification of a proposed or existing composting facility. The Department recognizes that case-by-case determinations may be necessary concerning selection of an appropriate category for a particular feedstock. Accordingly, the Department may require that analytical and/or process information be supplied by the owner or operator to assist in making such determinations.

Type 1: Vegetative waste, and other materials determined by the Department to pose a low risk to human health and the environment.

Type 2: Animal waste, manure, source-separated organics, food residuals and food processing vegetative waste.

Type 3: Biosolids, mixed solid waste, processed solid waste and sludges and food processing residuals not covered in Type 2, fats, oils, greases, dairy manufacturing wastes, dissolved air flotation (DAF) skimmings, paunch and any other compostable material not covered in Type 1 or Type 2.

Prohibited Wastes: Composting facilities may not accept asbestos or asbestos containing materials, infectious waste, hazardous waste, Polychlorinated biphenyl waste or lead-acid batteries.

14.1.3 General Exemptions

This Section 14 does not apply to the following:

(A) Backyard composting as defined by these Solid Waste Regulations;

(B) Owner/operators of composting facilities where only agricultural wastes are composted such that;

(1) The compost is produced at a manufacturing facility registered by the Colorado Department of Agriculture (CDA), pursuant to § 35-12-101 et seq., C.R.S.; and

(2) Finished compost distributed off-site shall meet the specifications for compost established by the CDA.

(C) The composting of biosolids at a wastewater treatment plant provided that the facility has received a permit in accordance with the Department's Biosolids Regulations No. 64, 5 CCR 1002-64, promulgated pursuant to Section 25-8-205(1)(e), C.R.S.

14.1.4 Conditional Exemptions

(A) Conditionally Exempt Small Quantity Composting Operations: Any composting facility with up to: (1) 100 cubic yards of Type 1 feedstock onsite or in process; (2) 100 cubic yards of Type 1 feedstock and up to 5 cubic yards of Type 2 feedstock onsite or in process; or (3) 100 cubic yards of Type 1 and up to 10 cubic yards of Type 2 feedstock on site or in process when composted in vessel, that complies with the following conditions is exempt from the balance of this Section 14:

(1) Such facilities must maintain records of feedstock types and quantities for Department inspection;

(2) Facilities operating commercially must register with the Department as a Conditionally Exempt Small Quantity Composting Facility;

(3) Facilities operating commercially must submit an annual report to the Department by March 1st each calendar year for the previous calendar year. The report must provide all information required by the Department to properly complete the legislative requirement of collecting waste diversion data including:

i. Types of materials recovered for composting; and

ii. Amount in tons or cubic yards of material recovered for composting.

(4) Facilities operating commercially must submit a final closure report to the Department no later than ninety (90) days after ceasing composting operations.

(5) Facilities operating commercially must sample and test finished compost in accordance with the minimum requirements of Section 14.6 of these Solid Waste Regulations.

(B) Conditionally Exempt Agricultural Composting Operations that compost only agricultural waste generated on-site and imported wood chips, tree branches, sawdust, leaves or untreated lumber that comply with the following are exempt from the balance of this Section 14:

(1) Importation of wood chips, tree branches, sawdust, leaves or untreated lumber occurs only in quantities necessary for effective composting of the agricultural waste generated on-site;

(2) Storage of imported wood chips, tree branches, sawdust, leaves or untreated lumber is limited to nine (9) months and the owner/operator of the facility maintains records to demonstrate adherence to this time limit;

(3) The composting facility is operated in such a manner that noise, dust, and odors do not constitute a nuisance or health hazard and does not cause or contribute to surface or groundwater pollution;

(4) The owner/operator of the facility registers with the Colorado Department of Agriculture, pursuant to § 35-12-101, et seq., C.R.S.;

(5) The owner/operator of the facility complies with all Colorado Department of Agriculture requirements and specifications; and

(6) The finished compost is only used on agricultural zoned property, as defined by the local requirements.

14.1.5 Compliance Schedule

(A) Class II and Class III composting facilities that do not have an EDOP approved after the November 18, 2008 revisions of this Section 14, Solid Waste Composting Regulations, must submit to the Department and the local governing authority, for review and approval, a revised EDOP within eighteen (18) months of the effective date of this Section 14.

(B) Within six (6) months of the effective date of this Section 14, facilities that cannot meet the compliance schedule specified in 14.1.5(A) must make a demonstration to the Department showing why this compliance schedule cannot be met, and must request an alternate schedule for coming into compliance with this Section 14. Such extension shall be subject to Department approval, but the deadline for coming into compliance may be extended no longer than eighteen (18) months after the effective date of this Section 14.

(C) Within twelve (12) months of the effective date of this Section 14, any Class I composting facility must have onsite a completed Composting Plan that complies with Section 14.2.

SECTION 14.2 – CLASS I COMPOSTING FACILITIES

14.2.1 Scope and Applicability

Section 14.2 applies to any persons, local governing authorities, and municipalities who owns or operates a Class I composting facility. A Class I composting facility is a facility that:

(A) Composts only Type 1 feedstocks, and who has less than 50,000 cubic yards of feedstocks and in-process material onsite at any one time (finished compost does not count toward this total); or

(B) Composts only source separated organics and/or food residuals generated onsite together with other compatible materials as defined in Section 1 of these regulations, with the following limits:

1. A total volume of no greater than 5,000 cubic yards of source separated organics onsite at any one time (finished qualified product does not count toward this total); and

2. A composting area of two (2) acres in size or less; or

(C) Composts at the site of generation or on agriculturally zoned property owned by the generator using only agricultural waste generated onsite together with other compatible materials as defined in Section 1 of these regulations and does not meet one of the general exemptions or conditional exemptions in Sections 14.1.3 or 14.1.4.

14.2.2 Class I Composting Facility Pre-Operations Requirements

(A) **Registration**: Prior to commencing composting or feedstock storage, the owner/operator of a Class I composting facility must submit for Department review and approval a registration as a Class I composting facility. Neither composting nor feedstock storage may commence without a current approved Class I composting facility registration. The registration must provide the following information:

(1) Name of the composting facility, the physical address and legal description, location with respect to the nearest town, and mailing address, if different from physical address;

(2) Names, addresses, and telephone numbers of the owner and the operator, and at least one person having the authority to take action in the event of an emergency;

(3) Maximum facility capacity and description and volume estimate of the types of materials to be composted;

(4) Documentation demonstrating that the local governing authority has approved the composting operation, including all conditions of approval;

(5) Closure plan demonstrating compliance with Section 14.2.6;

(B) **Financial Assurance**: Prior to commencing composting or feedstock storage, the owner/operator Class I composting facility must establish financial assurance in accordance with Section 4 of these Regulations.

(C) **Composting Plan**: Prior to commencing composting or feedstock storage, the owner or operator of a Class I composting facility must develop a written Composting Plan for the facility. The Composting Plan must include a description of the site, including site maps and plans drawn to a commonly recognized engineering scale illustrating the facility's surveyed property boundaries, location of processing and storage areas, adjoining properties, roads, fencing, existing and proposed structures, contact water containment and control structures. The Composting Plan must document how the facility meets the requirements of Sections 14.2.3, 14.2.4, 14.2.5, 14.2.6, 14.2.7 and 14.6 of this regulation. The Composting Plan must be maintained at the facility and available for review upon request by the Department or local governing authority during business hours.

(D) **Certificate of Designation**: Class I composting facilities are not required to obtain a Certificate of Designation from the local governing authority.

14.2.3 Class I Composting Facility Design Requirements

(A) **Surface Water Control**: The Composting Plan for Class I composting facility must describe how the surface water control system features of the facility will be designed, constructed and maintained:

(1) Prevent negative impacts to surface water and groundwater;

(2) Control surface water, including:

(a) stormwater run on and run off control features with a slope of one (1) to six (6) percent, or meeting other design criteria as approved by the department;

(b) features to contain and manage contact water;

(c) features to prevent contact water from negatively impacting groundwater, as determined by a Colorado licensed professional engineer or a professional geologist;

(d) features to prevent ponding of stormwater and contact water within the composting process area;

(e) contact water/stormwater containment structures with a minimum of 2 feet of freeboard measured from the lowest elevation at any given time.

(B) **Surface Water Control for Class I Composting Facilities Composting Manure, Animal Mortalities and/or Source Separated Organics**: In addition to the surface water management requirements in 14.2.3(A), the owner/operator of a Class I composting facility composting manure, animal mortalities and/or source separated organics must design, construct and maintain stormwater and contact water controls that meet the following requirements:

(1) Prevent flow onto the facility during peak discharge from a 25-year, 24- hour storm event;

(2) Control and collect the on-site run-off water volume resulting from a 25- year, 24-hour storm event;

(3) All stormwater/contact water containment structures must be constructed of a minimum of eighteen (18) inches of compacted soil or in-situ earthen material or other low permeability materials (e.g., geomembrane) to achieve a hydraulic conductivity of less than or equal to 1 x 10-6 cm/sec; and

(C) Engineered features or operational plans already approved by the Department would not need to be re-submitted if equivalence is demonstrated (e.g., stormwater control features that meet the requirements in the Confined Animal Feeding Operations Control Regulation, 5 CCR 1002-81).

(D) All engineered features must be reviewed and sealed by a Colorado licensed professional engineer or reviewed and signed by a professional geologist, as appropriate.

14.2.4 Class I Composting Facility Operational Requirements

The owner/operator of a Class I composting facility must operate the facility in accordance with their Department-approved registration, with their Composting Plan, and with the following operational requirements:

(A) The owner/operator of a Class I composting facility must comply with the operational requirements provided in Sections 2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.5, 2.1.7, 2.1.8, 2.1.9, 2.1.11, 2.1.15, 2.1.17, and 2.1.18 of these Solid Waste Regulations;

(B) **Financial Assurance**: The owner/operator of a Class I composting facility must maintain financial assurance in accordance with Section 4 of these Regulations.

(C) **Material Acceptance**: The owner/operator of a Class I composting facility may only accept Type 1 feedstocks, or other compatible materials if the composting facility is operating under the provisions of Section 14.2.1(B) or Section 14.2.1(C) and as specified in the approved registration.

(D) **Surface Water Control**: The owner/operator of a Class I composting facility must control surface water entering the site, must prevent contact water from leaving the site, and must manage contact water to ensure groundwater protection. Stormwater leaving the site must be managed through best management practices approved by the Water Quality Control Division's National Pollution Discharge Elimination System Program or stormwater may be managed within the contact water management system. Following a storm event that causes the available capacity of an impoundment to be less than the volume required to store runoff from the designed storm event, the impoundment must be dewatered to a level that restores the required capacity within thirty (30) calendar days. Alternative stormwater and contact water management methods and designs must be approved by the Department. Freeboard must be maintained at a minimum of two (2) feet at all times.

(E) **Access Control**: The owner/operator of a Class I composting facility must control access to prevent illegal dumping, prevent unauthorized access and provide for site security both during and after business hours. Effective artificial barriers or natural barriers may be used in lieu of fencing.

(F) **Nuisance Conditions**: The owner/operator of a Class I composting facility must control on-site and prevent off-site nuisance conditions such as noise, dust, mud, odors, vectors and windblown debris.

(G) **Signage**: The owner/operator of a Class I composting facility shall erect and maintain signage that identifies the facility name, emergency contact information, and the materials that will and will not be accepted, and that ensures adequate traffic control.

(H) **Contingency Plan**: The owner/operator of a Class I composting facility must develop, maintain for current site conditions, and keep available at all times, a contingency plan which outlines the corrective or remedial procedures to be taken in the event of:

(1) The delivery of unapproved feedstock, bulking material, liquid waste or other waste materials;

(2) Contamination of surface water or groundwater; and

(3) The occurrence of nuisance conditions either on-site or off-site.

(I) **Fire Protection**: The owner/operator of a Class I composting facility must properly implement its approved fire protection plan as required by local fire codes, and such plan must be kept current with site conditions and compliant with local fire codes.

(J) **Odor Control**: The owner/operator of a Class I composting facility must develop and implement an odor management plan as necessary to control on-site and prevent off-site nuisance conditions, including the following:

(1) Develop operational procedures to minimize on-site odors and prevent off-site odors (e.g., incorporating feedstocks with bulking material as soon as practical).

(2) Develop operational procedures to mitigate odors when they occur either on-site or off-site (e.g., use of biofilters).

(3) Develop strategies for mitigating off-site odors (e.g., communication with neighbors, responding to complaints within 24 hours).

(K) **Personnel Training**: Class I composting facilities must operate under the control of properly trained individuals. Personnel must be trained to recognize prohibited materials, take action when nuisance conditions occur, and implement emergency procedures when necessary.

(L) **Compost processing time and temperatures**: The owner/operator of a Class I composting facility must ensure that the composting process is sufficient to reduce pathogens and vector attraction. Processes to reduce pathogens and vector attraction must include, but are not limited to:

(1) **Windrow composting**: the compost material must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for fifteen (15) days or longer. The fifteen days do not need to be consecutive. During the period when the compost is maintained at 55 degrees Celsius or higher, there must be a minimum of five (5) turnings of the windrow.

(2) **In-vessel composting**: Compost material must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for three (3) consecutive days.

(3) **Aerated static pile composting process**: All in-process compost must be covered with sufficient insulating material, and the pile must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for a pathogen reduction period of three (3) consecutive days.

(4) **Alternative methods of compliance**: To meet requirements of this section, alternative processing methods may be approved by the Department based on a demonstration that these methods achieve an equivalent pathogen reduction. Vermicomposting is an example of an alternative method of compliance.

(M) **Compost sampling and testing**: The owner/operator of a Class I composting facility must sample and test finished compost in accordance with the minimum requirements of Section 14.6 of these Solid Waste Regulations.

(N) **Feedstock processing areas**: The owner/operator of a Class I composting facility must maintain all-weather feedstock processing areas of sufficient slope to direct stormwater and contact water to appropriate collection and storage features and prevent significant ponding of water. The feedstock processing areas must be of sufficient construction and firmness so that composting equipment can manage the process without significant damage or failure following inclement weather.

14.2.5 Class I Composting Facility Record Keeping and Reporting Requirements

(A) The owner/operator of a Class I composting facility must complete the Composting Facility Annual Reporting Form and submit to the Department by March 1st of each year for the previous calendar year. The annual report must provide all information required by the Department including:

(1) The types of materials received for composting;

(2) Amount in tons or cubic yards of each material received for composting;

(3) Amount of unprocessed feedstock and feedstock in process onsite at the beginning of the previous calendar year;

(4) Amount of unprocessed feedstock and feedstock in process onsite at the end of the previous calendar year; and

(5) Amount of compost distributed the previous calendar year.

(B) The owner/operator of a Class I composting facility must maintain, at a minimum, the following records;

(1) Windrow/ pile aeration data;

(2) Financial assurance documentation;

(3) Operational monitoring data including time and temperature readings;

(4) Facility personnel training records;

(5) Compost analytical data; and

(6) Feedstock analytical data.

14.2.6 Class I Composting Facility Closure Requirements

(A) Upon closure of a Class I composting facility, the owner/operator of the facility must provide a written notice to the Department no later than ninety (90) days after the facility stops accepting solid waste;

(B) Within one hundred and eighty (180) days of notifying the Department of closure, the owner/operator of a Class I composting facility must remove all waste from the site and dispose of at an appropriate solid waste disposal site; and

(C) Facilities must submit a final report to the Department within ninety (90) calendar days of completing closure.

14.2.7 Class I Composting Facility Post Closure Care and Maintenance

(A) Following closure of the Class I composting facility the owner/operator must conduct post-closure care, which must consist of at least the following:

(1) Continued monitoring and maintenance as defined in the post-closure plan;

(2) Inspection and maintenance of any cover material or vegetation; and

(3) An annual report submitted to the Department and local governing authority detailing post-closure care activities during the prior year.

(B) The post-closure care and maintenance period must be for a minimum of three (3) years. The length of the post-closure care period may be:

(1) Decreased by the Department after consultation with the local governing authority if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment; or

(2) Increased by the Department after consultation with the local governing authority if it is determined that the lengthened period is necessary to protect human health and the environment.

(C) Following completion of the post-closure care period the owner or operator must submit a certification signed by an independent professional for approval by the Department and the local governing authority, verifying that post-closure care has been completed in accordance with the post-closure plan and has been placed in the operating record.

SECTION 14.3 – CLASS II COMPOSTING FACILITIES

14.3.1 Scope and Applicability

Section 14.3 applies to any persons, local governing authorities and municipalities who owns or operates a Class II composting facility. A Class II composting facility is a facility that composts Type 1 feedstocks and manure and has less than 50,000 cubic yards of feedstocks and in-process material onsite at any one time (finished compost does not count toward this total).

14.3.2 Class II Composting Facility Pre-Operations Requirements

(A) **Review and Approval of Engineering Design and Operations Plan**: Prior to commencing composting or feedstock storage, the owner or operator of a Class II composting facility must have an Engineering Design and Operations Plan (EDOP) for the facility approved by the Department and the local governing authority. The EDOP must document how the facility meets the requirements of Sections 14.3.3, 14.3.4, 14.3.5, 14.3.6, 14.3.7, 14.3.8 and 14.6 of this regulation. The EDOP must be maintained at the facility and available for review upon request by the Department or local governing authority during business hours.

(B) **Financial Assurance**: Prior to commencing composting or feedstock storage, the owner/operator Class II composting facility must establish financial assurance in accordance with Section 4 of these Regulations.

(C) **Certificate of Designation**: Class II composting facilities are not required to obtain a Certificate of Designation from the local governing authority.

14.3.3 Class II Composting Facility Engineering Design and Operations Plan: General

(A) All portions of the facility design and site investigation must be reviewed and sealed by a Colorado licensed professional engineer or reviewed and signed by a professional geologist, as appropriate.

(B) A Class II composting facility must be designed, constructed, operated, closed and maintained in post closure in accordance with its approved EDOP.

(C) Each EDOP for a Class II composting facility must include, at a minimum:

(1) Names, addresses, and telephone numbers of the owner and operator, and at least one person having the authority to take action in the event of an emergency;

(2) Name of the composting facility, the physical address and legal description, location with respect to the nearest town, and mailing address, if different from physical address;

(3) Site maps and plans drawn to a common recognized engineering scale illustrating the facility's surveyed property boundaries, location of processing and storage areas, adjoining properties, roads, fencing, existing and proposed structures, contact water containment and control structures.

(4) A description of the Type 1 feedstocks and manure to be processed and composted.

(5) An evaluation of potential impacts to existing surface water and groundwater quality, including but not limited to:

(a) A description of site geological and hydrogeological conditions based on an onsite geotechnical investigation;

(b) Floodplain information including evidence that the proposed site is not located within a 100-year floodplain;

(c) Public water supply information including the location of all water supply wells, springs, and surface water intakes within one-half mile of the proposed facility boundary;

(d) Identification of all lakes, rivers, streams, springs, or bogs, on-site or within one-half mile of the proposed facility boundary;

(e) Depth to the uppermost aquifer;

(f) The hydrologic properties of the uppermost aquifer;

(g) The existing quality of groundwater beneath the proposed facility if groundwater monitoring is required for the facility;

(h) The types and regional thickness of unconsolidated soils materials;

(i) The types and regional thickness of consolidated bedrock materials; and

(j) Geologic hazards such as slope stability, faulting, folding, rockfall, landslides, subsidence or erosion potential.

14.3.4 Class II Composting Facility Design and Operations Plan: Design

(A) **General**: The EDOP for a Class II composting facility must document how the facility will be designed in a manner that:

(1) Prevents negative impacts to surface water and groundwater;

(2) Clearly defines the feedstock receiving, processing and storage areas;

(3) Specifies the maximum throughput capacity;

(B) **Feedstock Processing Areas**: The EDOP for a Class II composting facility must describe how the areas where all mixing, tipping and composting occur will be designed and constructed to:

(1) Ensure groundwater protection;

(2) Have a slope of one (1) to six (6) percent, or meets alternative slope design criteria as approved by the department;

(3) Withstand varying temperatures; and

(4) Allow for heavy equipment operation other vehicular access, without damage or failure that creates ponding or infiltration of surface water greater than the designed permeability rate; and in some cases:

(5) The Department may require a low permeability workpad area to manage contact water generated from composting operations. Site-specific conditions, operational practices, feedstock, bulking material and liquid wastes will be evaluated to determine the necessity for a low permability workpad and low permability liquid mixing pad/basin.

(C) **Surface Water Containment**: The EDOP for a Class II composting facility must describe how the surface water control system features of the facility will be designed, constructed and maintained:

To control stormwater run on and run off during peak discharge from a 25-year, 24-hour storm event;

(1) Such that contact water/stormwater containment structures are designed and maintained with a minimum of 2 feet of freeboard measured from the lowest elevation at any given time;

(2) Such that all stormwater/contact water containment structures must be constructed of a minimum of eighteen (18) inches of compacted soil or in-situ earthen material or other low permeability materials to achieve a hydraulic conductivity of less than or equal to 1 x 10-6 cm/sec. Alternative liner designs that perform in an equivalent manner may be approved by the Department based on a demonstration of the alternative liner design's equivalent performance, the waste type and site specific technical information;

(3) Such that stormwater/contact water containment structure liners are protected to prevent damage from weather and equipment;

(D) **Quality Assurance and Quality Control Plan**: The EDOP for a Class II composting facility must include a quality assurance and quality control plan for all engineered structures at the facility.

(1) The owner/operator of a Class II composting facility must implement their approved quality assurance and quality control plan in constructing all engineered structures at the facility.

(2) The owner/operator of a Class II composting facility must submit a construction certification report to the Department for review and approval, at a minimum, sixty (60) calendar days prior to acceptance of feedstock, liquid waste or bulking material.

(3) The owner/ operator of a Class II composting facility must provide copies of the construction record drawings for engineered features at the site and a report documenting facility construction, including the results of observations and testing carried out as part of the construction quality assurance plan, to the Department and local governing authority.

(4) Class II composting facilities must not commence operation until the Department has determined that the construction was completed in accordance with the approved engineering report/plans and specifications and has approved the construction documentation in writing.

14.3.5 Class II Composting Facility Design and Operations Plan: Operations

Class II composting facilities must comply with their Department-approved EDOP. The EDOP must include the following operation requirements:

(A) **General**: The EDOP for a Class II composting facility must describe how the facility will comply with the operational requirements provided in Sections 2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.5, 2.1.7, 2.1.8, 2.1.9, 2.1.11, 2.1.15, 2.1.17, and 2.1.18 of these Solid Waste Regulations;

(B) **Financial Assurance**: The EDOP for a Class II composting facility must include current financial assurance estimates in accordance with Section 4 of these Solid Waste Regulations. A Class II composting facility must maintain adequate financial assurance in accordance with its EDOP and with Section 1.8 of these Solid Waste Regulations.

(C) **Material Acceptance**: The EDOP for a Class II composting facility must describe the Type 1 feedstocks and manure that the facility accepts. A Class II Composting facility must not accept a feedstock other than those specified in its EDOP or as approved by the department.

(D) **Surface Water Control**: The EDOP for a Class II composting facility must describe how the facility will manage stormwater and prevent contact water from leaving the site. The EDOP must describe how the impoundment will be dewatered to a level that restores the required capacity within thirty (30) calendar days following a storm event that causes the available capacity of an impoundment to be less than the volume required to store runoff from the designed storm event. Freeboard must be maintained at a minimum of two (2) feet at all times.

(E) **Access Control**: The owner/operator of a Class II composting facility must control access to prevent illegal dumping, prevent unauthorized access and provide for site security both during and after business hours. Effective artificial barriers or natural barriers may be used in lieu of fencing. The EDOP for a Class II composting facility must describe how the facility will comply with this requirement.

(F) **Signage**: The owner/operator of a Class II composting facility shall erect and maintain signage that identifies the facility name, emergency contact information, and the materials that will and will not be accepted, and that ensures adequate traffic control.

(G) **Nuisance Conditions**: A Class II composting facility must control on-site and prevent off-site nuisance conditions such as noise, dust, mud, odors, vectors and windblown debris. The EDOP for a Class II composting facility must describe how the facility will comply with this requirement.

(H) **Contingency Plan**: The EDOP for a Class II composting facility must include a contingency plan which outlines the corrective or remedial procedures to be taken in the event of:

(1) The delivery of unapproved feedstock, bulking material, liquid waste or other waste materials;

(2) Contamination of surface water or groundwater; and

(3) The occurrence of nuisance conditions either on-site or off-site.

(I) **Fire Protection Plan**: A Class II composting facility must comply with local fire codes or, where no local fire code exists or where the local fire code does not provide equivalent or greater level of fire protection, with the fire code currently adopted by the Colorado Division of Fire Prevention and Control in the Department of Public Safety. The EDOP for a Class II composting facility must include a current fire protection plan that describes how the facility will comply with this requirement.

(J) **Odor Management Plan**: The EDOP for a Class II composting facility must include an odor management plan that describes how the facility will control on-site and prevent off-site nuisance conditions, including the following:

(1) Operational procedures to minimize on-site odors and prevent off-site odors (e.g., incorporating feedstocks with bulking material as soon as practical).

(2) Operational procedures to mitigate odors when they occur either on-site or off-site (e.g., use of biofilters).

(3) Strategies for mitigating off-site odors (e.g., communication with neighbors, responding to complaints within 24 hours).

(K) **Personnel Training**: A Class II composting facility must operate under the control of properly trained individuals. Personnel must be trained to recognize prohibited materials, take action when nuisance conditions occur, and implement emergency procedures when necessary. The EDOP for a Class II composting facility must describe how the facility will comply with these requirements.

(L) **Compost processing time and temperatures**: The owner/operator of a composting facility must ensure that the composting process is sufficient to reduce pathogens and vector attraction. The processing methods, including processing times and temperatures must be described in the facility's EDOP per Section 14.6 (testing section). Processes to reduce pathogens and vector attraction must include, but are not limited to:

(1) **Windrow composting**: the compost material must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for fifteen (15) days or longer. The fifteen days do not need to be consecutive. During the period when the compost is maintained at 55 degrees Celsius or higher, there must be a minimum of five (5) turnings of the windrow.

(2) **In-vessel composting**: Compost material must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for three (3) consecutive days.

(3) **Aerated static pile composting process**: All in-process compost must be covered with sufficient insulating material, and the pile must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for a pathogen reduction period of three (3) consecutive days.

(4) **Alternative methods of compliance**: To meet requirements of this section, alternative processing methods may be approved by the Department based on a demonstration that these methods achieve an equivalent pathogen reduction. Vermicomposting is an example of an alternative method of compliance.

(M) **Groundwater Monitoring Plan**: The EDOP for a Class II composting facility must include a Groundwater Monitoring Plan pursuant Section 2.2 of these Solid Waste Regulations. Monitoring parameters will be established based on the hydrogeologic data related to the site, the type of waste stream(s) accepted at the facility and the waste characterization analyses performed on incoming wastes. A Class II composting facility may receive a specific waiver from groundwater monitoring from the Department and local governing authority pursuant to Section 1.5 and Appendix B of these Solid Waste Regulations.

(N) **Compost sampling and testing**: The EDOP for A Class II composting facility must describe how the facility will sample and test finished compost in accordance with the minimum requirements of Section 14.6 of these Solid Waste Regulations.

(O) **Feedstock Processing Areas**: The owner/operator of a Class II composting facility must maintain all weather feedstock processing areas of sufficient slope to direct stormwater and contact water to appropriate collection and storage features and prevents significant ponding of water. The feedstock processing areas must be of sufficient construction and firmness so that composting equipment can manage the process without significant damage or failure following inclement weather.

14.3.6 Class II Composting Facility Design and Operations Plan: Record Keeping and Reporting

(A) The EDOP for a Class II composting facility must include a record keeping and reporting section that describes the records the facility will maintain for department review, including, at a minimum, the following:

(1) Windrow/ pile aeration data;

(2) Financial assurance documentation;

(3) Operational monitoring data including time and temperature readings;

(4) Engineering Design and Operations Plan;

(5) Facility personnel records;

(6) Compost analytical data;

(7) Feedstock analytical data;

(8) Liquid waste analytical data;

(9) The types of materials received for composting;

(10) Amount in tons or cubic yards of each material received for composting;

(11) Amount of unprocessed feedstock and feedstock in process onsite at the beginning of the previous calendar year;

(12 Amount of unprocessed feedstock and feedstock in process onsite at the end of the previous calendar year; and

(13) Amount of compost distributed the previous calendar year.

(B) A Class II composting facility must complete the Composting Facility Annual Reporting Form and submit to the Department by March 1st of each year for the previous calendar year. The annual report must provide all information required by the Department, including but not limited to the information describe in section 14.3.6(A).

14.3.7 Class II Composting Facility Engineering Design and Operations Plan: Closure

(A) The EDOP for a Class II composting facility must include a closure plan which contains at a minimum a complete and accurate description and schedule of all steps necessary to achieve closure of the composting facility. Such steps must include the following criteria:

(1) The removal of all stored raw feedstock, bulking material, and liquid waste to a permitted solid waste facility or a facility where the wastes may be beneficially reused with approval from the Department and local governing authority;

(2) The removal of all other wastes on-site, including those wastes generated by closure activities, to a permitted solid waste facility;

(3) The removal of all workpad area unless, specifically approved by the Department and local governing authority to remain on-site;

(4) The removal of all stormwater control and collection structures, unless specifically approved by the Department and local governing authority to remain on-site;

(5) The removal of all tanks, structures and equipment unless specifically approved by the Department and local governing authority to remain onsite;

(6) Site restoration including regrading and revegetation; and

(7) The removal of partially composted feedstocks and bulking material to a permitted solid waste facility or another compost facility with approval from the Department and local governing authority.

(8) Closure activities must not exceed ninety (90) days in length. Extension of the closure period may be granted by the Department and the local governing authority if the owner or operator demonstrates that closure will, of necessity, take longer than ninety (90) days and all measures necessary to prevent threats to human health and the environment will be taken.

(B) If at any time a composting facility ceases operation, including the discontinued receipt, processing and sale of materials for more than one hundred eighty (180) days, the owner or operator must notify the Department and local governing authority and unless otherwise approved by the Department and the local governing authority, the owner or operator must begin implementation of its Closure Plan. Within fourteen (14) calendar days of commencing implementation of the Closure Plan, the facility must provide written notification to the Department and the local governing authority.

(C) Within thirty (30) calendar days of completing closure activities the owner/operator of the facility must provide written notification to the Department and local governing authority to document that all the requirements and conditions of the closure plan have been achieved.

14.3.8 Class II Composting Facility Engineering Design and Operations Plan: Post Closure Care and Maintenance

(A) Following closure of the Class II composting facility the owner or operator must conduct post-closure care, which must consist of at least the following:

(1) Continued monitoring, sampling and testing of soil, groundwater or surface water as defined in the post-closure plan;

(2) Inspection and maintenance of any cover material or vegetation; and

(3) An annual report submitted to the Department and local governing authority detailing post-closure care activities during the prior year.

(B) The post-closure care and maintenance period must be for a minimum of five (5) years. The length of the post-closure care period may be:

(1) Decreased by the Department after consultation with the local governing authority if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment; or

(2) Increased by the Department after consultation with the local governing authority if it is determined that the lengthened period is necessary to protect human health and the environment.

(C) Following completion of the post-closure care period the owner or operator must submit a certification signed by an independent Colorado licensed professional engineer for approval by the Department and the local governing authority, verifying that post-closure care has been completed in accordance with the post-closure plan and has been placed in the operating record.

14.4 – CLASS III COMPOSTING FACILITIES

14.4.1 Scope and Applicability

Section 14.4 applies to any persons, local governing authorities, and municipalities composting Type 1, Type 2 and/or Type 3 feedstocks or other materials approved by the Department.

14.4.2 Class III Composting Facility Pre-Operations Requirements

(A) **Review and Approval of Engineering Design and Operations Plan**: Prior to commencing composting or feedstock storage, the owner or operator of a Class III composting facility must have an Engineering Design and Operations Plan (EDOP) for the facility approved by the Department and the local governing authority. The EDOP must document how the facility meets the requirements of Sections 14.4.3, 14.4.4, 14.4.5, 14.4.6, 14.4.7, 14.4.8 and 14.6 of this regulation. The EDOP must be maintained at the facility and available for review upon request by the Department or local governing authority during business hours.

(B) **Financial Assurance**: Prior to commencing composting or feedstock storage, the owner/operator Class III composting facility must establish financial assurance in accordance with Section 4 of these Regulations.

(C) **Certificate of Designation**: Class III composting facilities must obtain a Certificate of Designation from the local governing authority.

14.4.3 Class III Composting Facility Engineering Design and Operations Plan: General

(A) All portions of the facility design and site investigation must be reviewed and sealed by a Colorado licensed professional engineer or reviewed and signed by a professional geologist, as appropriate.

(B) A Class III composting facility must be designed, constructed, operated, closed and maintained in post closure in accordance with its approved EDOP.

(C) Each EDOP must include, at a minimum:

(1) Names, addresses, and telephone numbers of the owner and operator, and at least one person having the authority to take action in the event of an emergency;

(2) Name of the composting facility, the physical address and legal description, location with respect to the nearest town, and mailing address, if different from physical address;

(3) Site maps and plans drawn to a common recognized engineering scale illustrating the facility's surveyed property boundaries, location of processing and storage areas, adjoining properties, roads, fencing, existing and proposed structures, contact water containment and control structures.

(4) A description of the feedstocks to be processed and composted.

(5) An evaluation of potential impacts to existing surface water and groundwater quality, including but not limited to:

(a) A description of site geological and hydrogeological conditions based on an onsite geotechnical investigation;

(b) Floodplain information including evidence that the proposed site is not located within a 100-year floodplain;

(c) Public water supply information including the location of all water supply wells, springs, and surface water intakes within one-half mile of the proposed facility boundary;

(d) Identification of all lakes, rivers, streams, springs, or bogs, on-site or within one-half mile of the proposed facility boundary;

(e) Depth to the uppermost aquifer;

(f) The hydrologic properties of the uppermost aquifer;

(g) The existing quality of groundwater beneath the proposed facility if groundwater monitoring is required for the facility;

(h) The types and regional thickness of unconsolidated soils materials;

(i) The types and regional thickness of consolidated bedrock materials; and

(j) Geologic hazards such as slope stability, faulting, folding, rockfall, landslides, subsidence or erosion potential.

14.4.4 Class III Composting Facility Design and Operations Plan: Design

(A) **General**: The EDOP for a Class III composting facility must document how the facility will be designed in a manner that:

(1) Prevents negative impacts to surface water and groundwater;

(2) Clearly defines the feedstock receiving, processing and storage areas;

(3) Specifies the maximum throughput capacity;

(B) **Feedstock Processing Areas**: The EDOP for a Class III composting facility must describe how the areas where all mixing, tipping and composting occur will be designed and constructed to:

(1) Ensure groundwater protection;

(2) Have a slope of one (1) to six (6) percent, or meets alternative slope design criteria as approved by the department;

(3) Withstand varying temperatures; and

(4) Allow for heavy equipment operation other vehicular access, without damage or failure that creates ponding or infiltration of surface water greater than the designed permeability rate; and in some cases:

(5) The Department may require a low permeability workpad area to manage contact water generated from composting operations. Site-specific conditions, operational practices, feedstock, bulking material and liquid wastes will be evaluated to determine the necessity for a low permeability workpad and low permability liquid mixing pad/basin.

(C) **Surface Water Containment**: The EDOP for a Class III composting facility must describe how the surface water control system features of the facility will be designed, constructed and maintained:

(1) To control stormwater run on and run off during peak discharge from a 25-year, 24-hour storm event;

(2) Such that contact water/stormwater containment structures are designed and maintained with a minimum of 2 feet of freeboard measured from the lowest elevation at any given time;

(3) Such that all stormwater/contact water containment structures must be constructed of a minimum of eighteen (18) inches of compacted soil or in-situ earthen material or other low permeability materials to achieve a hydraulic conductivity of less than or equal to 1 x 10-6 cm/sec. Alternative liner designs that perform in an equivalent manner may be approved by the Department based on a demonstration of the alternative liner design's equivalent performance, the waste type and site specific technical information;

(4) Such that stormwater/contact water containment structure liners are protected to prevent damage from weather and equipment;

(D) **Quality Assurance and Quality Control Plan**: The EDOP for a Class III composting facility must include a quality assurance and quality control plan for all engineered structures at the facility.

(1) The Owner/Operator of a Class III composting facility must implement their approved quality assurance and quality control plan in constructing all engineered structures at the facility.

(2) The Owner/Operator of a Class III composting facility must submit a construction certification report to the Department for review and approval, at a minimum, sixty (60) calendar days prior to acceptance of feedstock, liquid waste or bulking material.

(3) The owner or operator of a Class III composting facility must provide copies of the construction record drawings for engineered features at the site and a report documenting facility construction, including the results of observations and testing carried out as part of the construction quality assurance plan, to the Department and local governing authority.

(4) Class III composting facilities must not commence operation until the Department has determined that the construction was completed in accordance with the approved engineering report/plans and specifications and has approved the construction documentation in writing.

14.4.5 Class III Composting Facility Design and Operations Plan: Operations

Class III composting facilities must comply with their Department-approved EDOP. The EDOP must include the following operation requirements:

(A) **General**: The EDOP for a Class III composting facility must describe how the facility will comply with the operational requirements provided in Sections 2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.5, 2.1.7, 2.1.8, 2.1.9, 2.1.11, 2.1.15, 2.1.17, and 2.1.18 of these Solid Waste Regulations:

(B) **Financial Assurance**: The EDOP for a Class III composting facility must include current financial assurance estimates in accordance with Section 4 of these Solid Waste Regulations. A Class III composting facility must maintain adequate financial assurance in accordance with its EDOP and with Section 1.8 of these Solid Waste Regulations.

(C) **Material Acceptance**: The EDOP for a Class III composting facility must describe the feedstocks that the facility accepts. A Class III Composting facility must not accept a feedstock other than those specified in its EDOP or as approved by the department. The EDOP for a facility that accepts sludges, liquid waste or materials not identified in Section 14.1.2 of the Solid Waste Regulations must include a waste characterization plan that meets the procedural requirements of Section 2.1.2(C)(2), (3), and (4) of these Solid Waste Regulations to ensure protection of human health and the environment.

(D) **Surface Water Control**: The EDOP for a Class III composting facility must describe how the facility will manage stormwater and prevent contact water from leaving the site. The EDOP must describe how the impoundment will be dewatered to a level that restores the required capacity within thirty (30) calendar days following a storm event that causes the available capacity of an impoundment to be less than the volume required to store runoff from the designed storm event. Freeboard must be maintained at a minimum of two (2) feet at all times.

(E) **Access Control**: A Class III composting facility must control access to prevent illegal dumping, prevent unauthorized access and provide for site security both during and after business hours. Effective artificial barriers or natural barriers may be used in lieu of fencing. The EDOP for a Class III composting facility must describe how the facility will comply with this requirement.

(F) **Signage**: The owner/operator of a Class III composting facility shall erect and maintain signage that identifies the facility name, emergency contact information, and the materials that will and will not be accepted, and that ensures adequate traffic control.

(G) **Nuisance Conditions**: A Class III composting facility must control on-site and prevent off-site nuisance conditions such as noise, dust, mud, odors, vectors and windblown debris. The EDOP for a Class III composting facility must describe how the facility will comply with this requirement.

(H) **Contingency Plan**: The EDOP for a Class III composting facility must include a contingency plan which outlines the corrective or remedial procedures to be taken in the event of:

(1) The delivery of unapproved feedstock, bulking material, liquid waste or other waste materials;

(2) Contamination of surface water or groundwater; and

(3) The occurrence of nuisance conditions either on-site or off-site.

(I) **Fire Protection Plan**: The owner/operator of a Class III composting facility must comply with local fire codes or, where no local fire code exists or where the local fire code does not provide equivalent or greater level of fire protection, with the fire code currently adopted by the Colorado Division of Fire Prevention and Control in the Department of Public Safety. The EDOP for a Class III composting facility must include a current fire protection plan that describes how the facility will comply with this requirement.

(J) **Odor Management Plan**: The EDOP for a Class III composting facility must include an odor management plan that describes how the facility will control on-site and prevent off-site nuisance conditions, including the following:

(1) Operational procedures to minimize on-site odors and prevent off-site odors (e.g., incorporating feedstocks with bulking material as soon as practical).

(2) Operational procedures to mitigate odors when they occur either on-site or off-site (e.g., use of biofilters).

(3) Strategies for mitigating off-site odors (e.g., communication with neighbors, responding to complaints within 24 hours).

(K) **Personnel Training**: A Class III composting facility must operate under the control of properly trained individuals. Personnel must be trained to recognize prohibited materials, take action when nuisance conditions occur, and implement emergency procedures when necessary. The EDOP for a Class III composting facility must describe how the facility will comply with these requirements.

(L) **Compost processing time and temperatures**: The owner/operator of a composting facility must ensure that the composting process is sufficient to reduce pathogens and vector attraction. The processing methods, including processing times and temperatures must be described in the facility's EDOP per Section 14.6 (testing section). Processes to reduce pathogens and vector attraction must include, but are not limited to:

(1) **Windrow composting**: the compost material must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for fifteen (15) days or longer. The fifteen days do not need to be consecutive. During the period when the compost is maintained at 55 degrees Celsius or higher, there must be a minimum of five (5) turnings of the windrow.

(2) **In-vessel composting**: Compost material must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for three (3) consecutive days.

(3) **Aerated static pile composting process**: All in-process compost must be covered with sufficient insulating material, and the pile must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for a pathogen reduction period of three (3) consecutive days.

(4) **Alternative methods of compliance**: To meet requirements of this section, alternative processing methods may be approved by the Department based on a demonstration that these methods achieve an equivalent pathogen reduction. Vermicomposting is an example of an alternative method of compliance.

(M) **Groundwater Monitoring Plan**: The EDOP for a Class III composting facility must include a Groundwater Monitoring Plan pursuant Section 2.2 of these Solid Waste Regulations. Monitoring parameters will be established based on the hydrogeologic data related to the site, the type of waste stream(s) accepted at the facility and the waste characterization analyses performed on incoming wastes. A Class III composting facility may receive a specific waiver from groundwater monitoring from the Department and local governing authority pursuant to Section 1.5 and Appendix B of these Solid Waste Regulations.

(N) **Compost sampling and testing**: The EDOP for A Class III composting facility must describe how the facility will sample and test finished compost in accordance with the minimum requirements of Section 14.6 of these Solid Waste Regulations.

(O) **Feedstock Processing Areas**: The owner/operator of a Class III composting facility must maintain all weather feedstock processing areas of sufficient slope to direct stormwater and contact water to appropriate collection and storage features and prevents significant ponding of water. The feedstock processing areas must be of sufficient construction and firmness so that composting equipment can manage the process without significant damage or failure following inclement weather.

14.4.6 Class III Composting Facility Design and Operations Plan: Record Keeping and Reporting

(A) The EDOP for a Class III composting facility must include a record keeping and reporting section that describes the records the facility will maintain for department review, including, at a minimum, the following:

(1) Windrow/ pile aeration data;

(2) Financial assurance documentation;

(3) Operational monitoring data including time and temperature readings;

(4) Engineering Design and Operations Plan;

(5) Facility personnel records;

(6) Compost analytical data;

(7) Feedstock analytical data;

(8) Liquid waste analytical data;

(9) The types of materials received for composting;

(10) Amount in tons or cubic yards of each material received for composting;

(11) Amount of unprocessed feedstock and feedstock in process onsite at the beginning of the previous calendar year;

(12) Amount of unprocessed feedstock and feedstock in process onsite at the end of the previous calendar year; and

(13) Amount of compost distributed the previous calendar year.

(B) A Class III composting facility must complete the Composting Facility Annual Reporting Form and submit to the Department by March 1st of each year for the previous calendar year. The annual report must provide all information required by the Department, including but not limited to the information describe in section 14.4.6(A).

14.4.7 Class III Composting Facility Design and Operations Plan: Closure

(A) The EDOP for a Class III composting facility must include a closure plan which contains at a minimum a complete and accurate description and schedule of all steps necessary to achieve closure of the composting facility. Such steps must include the following criteria:

(1) The removal of all stored raw feedstock, bulking material, and liquid waste to a permitted solid waste facility or a facility where the wastes may be beneficially reused with approval from the Department and local governing authority;

(2) The removal of all other wastes on-site, including those wastes generated by closure activities, to a permitted solid waste facility;

(3) The removal of all workpad area unless, specifically approved by the Department and local governing authority to remain on-site;

(4) The removal of all stormwater control and collection structures, unless specifically approved by the Department and local governing authority to remain on-site;

(5) The removal of all tanks, structures and equipment unless specifically approved by the Department and local governing authority to remain on-site;

(6) Site restoration including regrading and revegetation; and

(7) The removal of partially composted feedstocks and bulking material to a permitted solid waste facility or another compost facility with approval from the Department and local governing authority.

(8) Closure activities must not exceed ninety (90) days in length. Extension of the closure period may be granted by the Department and the local governing authority if the owner or operator demonstrates that closure will, of necessity, take longer than ninety (90) days and all measures necessary to prevent threats to human health and the environment will be taken.

(B) If at any time a composting facility ceases operation, including the discontinued receipt, processing and sale of materials for more than one hundred eighty (180) days, the owner or operator must notify the Department and local governing authority and unless otherwise approved by the Department and the local governing authority, the owner or operator must begin implementation of its Closure Plan. Within fourteen (14) calendar days of commencing implementation of the Closure Plan, the facility must provide written notification to the Department and the local governing authority.

(C) Within thirty (30) calendar days of completing closure activities the owner/operator of the facility must provide written notification to the Department and local governing authority to document that all the requirements and conditions of the closure plan have been achieved.

14.4.8 Class III Composting Facility Design and Operations Plan: Post Closure Care and Maintenance

(A) Following closure of the Class III composting facility the owner or operator must conduct post-closure care, which must consist of at least the following:

(1) Continued monitoring, sampling and testing of soil, groundwater or surface water as defined in the post-closure plan;

(2) Inspection and maintenance of any cover material or vegetation; and

(3) An annual report submitted to the Department and local governing authority detailing post-closure care activities during the prior year.

(B) The post-closure care and maintenance period must be for a minimum of five (5) years. The length of the post-closure care period may be:

(1) Decreased by the Department after consultation with the local governing authority if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment; or

(2) Increased by the Department after consultation with the local governing authority if it is determined that the lengthened period is necessary to protect human health and the environment.

(C) Following completion of the post-closure care period the owner or operator must submit a certification signed by an independent Colorado licensed professional engineer for approval by the Department and the local governing authority, verifying that post-closure care has been completed in accordance with the post-closure plan and has been placed in the operating record.

14.5 – COMPOSTING PILOT PROJECTS

(A) The Department will consider composting pilot projects on a case-by-case basis. Composting pilot projects must be performed for the following purposes:

(1) Academic research;

(2) Compost market analysis;

(3) Determining composting method viability; or

(4) Other as approved by the Department.

(B) Composting pilot project must demonstrate that they meet the design and operations requirements for the corresponding facility classification based on feedstock type collected.

(C) Composting pilot project must not exceed two (2) years in length without written approval from the Department.

14.6 – SAMPLING OF FINISHED COMPOST AND SOILS AMENDMENTS

(A) **Compost Standards**: The owner or operator of any class of compost facility (unless exempt under Section 14.1.3) must ensure that compost to be sold or distributed for off-site use meets the standards set forth in Table 1 of this Section 14, and with Section 14.6 below. Compliance with these standards must not relieve any owner or operator from their obligation to comply with any other applicable agency standards, such as those of the Colorado Department of Agriculture.

(B) Compost facilities processing mixed solid waste must remove non-compostable waste prior to product distribution.

(C) Facilities composting to create soil amendments may submit a request for alternative testing requirements to the Division and local governing authority for review and approval. Alternative testing demonstrations must include an agronomic evaluation with examples of application rates for specific crop types and a demonstration that the beneficial use of the soil amendment will not have a greater impact to public health and the environment than similar products on the market used for similar purposes.

TABLE 1

Maximum Constituent Concentration For Compost
Sold Or Distributed For Off-site Use
(mg/kg dry weight basis)

CONSTITUENTS	MAXIMUM LEVEL
INORGANICS[1] (mg/kg)	
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800
BIOLOGICAL	
Fecal coliform	see 14.6 (D)
Salmonella	see 14.6 (D)

[1]Inorganic Methodology: Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846) Third Edition, December 1996: As, Cd, Cu, Pb, Ni, Se and Zn by Method 6010 or 7000. Hg by 7471. These documents are available for review at the Colorado Department of Public Health and Environment (See § 1.1.2 of these Regulations) and the State Publications Depository Libraries.

(D) The owner or operator of a composting facility must ensure that:

(1) The density of the fecal coliform present in the compost is less than 1000 Most Probable Number per gram of total solids (dry weight basis); or

(2) The density of Salmonella sp. bacteria in the compost is less than three (3) Most Probable Number per four (4) grams of total solids (dry weight basis) at the time the compost is to be sold or otherwise distributed for use; or

(3) An owner/operator of a composting facility may receive an approval from the Department and local governing authority for alternate testing after demonstrating how the alternative testing is protective of human health and the environment.

(E) **Sampling Frequency**: Finished compost must be sampled and tested once every 10,000 cubic yards of compost produced, or annually, whichever is more frequent. The Department, in consultation with the local governing authority, may impose site-specific EDOP provisions requiring a greater testing frequency on finished compost, especially from a Class III composting facility, in cases where the feedstocks and liquid waste accepted or the compost process warrants greater frequency.

(F) **Reintroduction of Finished Product into Compost Process**: Finished compost which has been sampled and tested, but to which raw or partially composted feedstock, bulking material, or liquid waste is added prior to, or during distribution, must be reintroduced into the composting process, re-sampled and re-tested prior to commencing or continuing distribution.

(G) **Sampling Methodology**: Sample collection, preservation, and analysis must assure valid and representative analytical results. Sampling procedures must be described in the facility's design and operation plan.

(H) **Additional Testing**: The Department may require additional testing of finished compost for constituents not found in Table 1 and at a frequency greater than specified in Section 14.6(E) of this Section 14.

(I) **Exceedances**: Compost that exceeds the levels specified in Table 1 or as specified in the approved EDOP must be:

(1) Reintroduced into the composting process; or

(2) Disposed of at a permitted solid waste disposal facility; or

(3) Otherwise used in a manner approved by the Department and local governing authority.

(J) **Unrestricted Use**: Compost that satisfies the levels specified in Table 1 and all other parameters identified by the Department per Section 14.6 is determined by these criteria to be finished compost and acceptable for unrestricted use. The finished compost is considered to be a product not a waste, and is no longer subject to these Solid Waste Regulations. For those additional constituents identified by the Department under Section 14.6 and not found on Table 1, the Department will approve protective unrestricted use constituent concentrations.

SECTION 15 RESERVED

SECTION 16 MATERIALS PROHIBITED FROM DISPOSAL

16.1 SCOPE AND APPLICABILITY

16.1.1 Purpose.

These regulations apply to the management and disposal of materials prohibited from land disposal in a solid waste site and facility under authority of CRS Title 30, Article 20, Part 1 and Part 10 and CRS Title 25, Article 17, Part 3. These Section 16 regulations are classified into the following sub-categories:

16.2 Management of Residentially Generated Used Lead-acid Batteries

16.3 Management of Residentially Generated Used Oil

16.4 [Reserved]

16.5 Management of Residentially Generated Waste Electronic Devices.

16.1.2 General Provisions

(A) Land disposal of residentially generated waste electronic devices, used lead-acid batteries and used oil is prohibited. Land disposal includes, but is not limited to, placing, discarding, or otherwise disposing of these wastes:

(1) At a solid waste disposal site and facility;

(2) At a transfer station;

(3) At a hazardous waste treatment, storage or disposal facility;

(4) In sewers;

(5) In septic tanks;

(6) In drainage systems;

(7) In surface or groundwaters;

(8) In watercourses;

(9) In any body of water; or

(10) On the ground.

(B) Placement of these wastes in a receptacle or collection device destined for land disposal, such as a dumpster, is prohibited.

(C) Acceptance of these wastes at a solid waste disposal site or facility or transfer station is prohibited, except for the purpose of recycling or collection facility operations.

(D) Each entity affected by this Section must comply with all other applicable Colorado statutes and Regulations of the Department, and with all applicable local zoning laws and ordinances.

16.1.3 Due Diligence Exemption

(A) Individuals

Individuals residing in areas without recycling facilities or collection facilities are given the opportunity to demonstrate a lack of reasonable recycling options. In order to exercise this option, the individual must conduct due diligence to establish that reasonable options are not available. A finding of due diligence shall be based, at a minimum, on an individual's inquiry into local recycling options accomplished by querying the local telephone directory and contacting the county or municipality of residence regarding the availability of local recycling facilities, collection centers, or collection events. In the event that due diligence is exercised and no reasonable recycling option is identified, an individual may dispose of used lead-acid batteries and/or used oil in a solid waste disposal site and facility or transfer station. The individual must contact the intended recipient solid waste disposal site and facility or transfer station to make sure that the facility will accept the used lead-acid batteries and/or used oil. Nothing in this Section precludes any solid waste disposal site and facility or transfer station from refusing to accept these items on a site-specific basis.

(B) Solid Waste Disposal Sites and Facilities

Each solid waste disposal site and facility must evaluate any due diligence determinations made by individuals, consistent with waste screening criteria already implemented for other waste streams in accordance with Section 2.1.2 of these Regulations. The individual may be required by the solid waste disposal site and facility to document the due diligence that was performed if such a requirement is identified in the facility's waste characterization plan required in Section 16.6 of these Regulations.

(C) Collection Facilities

Due diligence is only available to individuals; collection facilities are prohibited from the provisions of due diligence under this exemption.

16.2 MANAGEMENT OF RESIDENTIALLY GENERATED USED LEAD-ACID BATTERIES

16.2.1 Used Lead-acid Battery Disposal

(A) Land disposal of residentially generated used lead-acid batteries is prohibited.

(B) A person shall manage residentially generated used lead-acid batteries by delivery to one of the following entities:

(1) A retailer or wholesaler engaged in used lead-acid battery collection or recycling;

(2) A secondary lead smelter;

(3) A collection facility engaged in used lead-acid battery collection; or

(4) A recycling facility engaged in used lead-acid battery recycling.

16.2.2 Used Lead-acid Battery Management Standards

(A) A retailer, wholesaler, or collection facility that accepts and stores residentially generated used lead-acid batteries shall manage the batteries in a manner that prevents the release of waste or waste constituents to the environment, as follows:

(1) Any used lead-acid battery that shows evidence of leakage, spillage, or damage that could cause leakage, shall be placed in a container. The container must be closed, labeled as to its contents, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage;

(2) Batteries that are not leaking and are in good condition must be stored on pallets or in a comparable manner that keeps all batteries off the ground;

(3) Batteries stored outside shall be protected from the weather;

(4) Used lead-acid batteries must be stored in a designated accumulation area indicated by signs, markings, or other identifiers; and

(5) Any release associated with the storage or recycling of lead-acid batteries must be immediately contained and remediated.

(B) A retailer, wholesaler, or collection facility that accepts and stores residentially generated used lead-acid batteries in accordance with this Section and also accepts and stores used lead-acid batteries regulated under the Colorado Hazardous Waste Regulations 6 CCR 1007-3, may manage residentially generated used lead-acid batteries in accordance with:

(1) Section 16.2.2(A) above;

(2) Hazardous waste requirements for Universal Wastes at 6 CCR 1007-3, Part 273; or

(3) Hazardous waste requirements for lead-acid batteries being reclaimed in accordance with 6 CCR 1007-3, Part 267, Subpart G.

16.2.3 Retailer Deposit System

Any retailer selling replacement lead-acid batteries may accept from customers used lead-acid batteries of the same general type and in a quantity at least equal to the number of new batteries purchased, if offered by customers. A lead-acid battery retailer that chooses to set up a deposit system may collect a deposit of at least ten dollars on the sale of an automotive-type replacement lead-acid battery not accompanied by the return of a used lead-acid battery. The retailer shall return the deposit if the person who paid the deposit returns a used lead-acid battery to the retailer within thirty (30) calendar days of the date of sale.

16.2.4 Retailer Disposal Options

A retailer accepting used lead-acid batteries from customers in the State shall dispose of said batteries by delivery to one of the following:

(A) The agent of a lead-acid battery wholesaler or a secondary lead smelter;

(B) A battery manufacturer for delivery to a secondary lead smelter;

(C) A collection facility engaged in used lead-acid battery collection; or

(D) A recycling facility engaged in used lead-acid battery recycling.

16.2.5 Lead-acid battery wholesalers

Any wholesaler selling replacement lead-acid batteries may accept from customers, at the point of transfer, used lead-acid batteries of the same general type and in a quantity at least equal to the number of new batteries purchased, if offered by customers.

16.2.6 Household Hazardous Waste Collection Event Exemption

Residentially generated used lead-acid batteries that are collected during any periodic household hazardous waste collection event (where such wastes are not accepted on a continuous basis) shall be exempt from the standards in 16.2.2, provided that the residentially generated used lead-acid batteries are managed to prevent release to the environment and are transferred from the site within thirty (30) calendar days following each collection event.

16.3 MANAGEMENT OF RESIDENTIALLY GENERATED USED OIL

16.3.1 Used Oil Disposal

(A) Land disposal of residentially generated used oil is prohibited.

(B) Notwithstanding Subsection (A) of this Section, a person may dispose of an item or substance that contains de minimis quantities of used oil in a solid waste disposal site and facility under Subsection (A) of this Section if:

  (1) All oil has been removed from the item or substance to the extent reasonably possible; and

  (2) No free-flowing oil remains in the item or substance.

(C) A person shall dispose of used oil by delivery to one of the following entities:

  (1) A retailer engaged in used oil collection or recycling;

(2) A wholesaler engaged in used oil collection or recycling;

(3) A collection facility engaged in used oil collection; or

(4) A recycling facility engaged in used oil recycling.

(D) A retailer shall dispose of used oil by delivery to one of the following entities:

(1) The agent of a wholesaler engaged in used oil recycling;

(2) A collection facility engaged in used oil collection for recycling; or

(3) A recycling facility engaged in used oil recycling.

16.3.2 Used Oil Management Standards

A collection facility that accepts and stores residentially generated used oil must manage the oil as follows:

(A) For transport to an appropriate recycling facility, the collection facility must comply with requirements set forth in the Colorado Hazardous Waste Regulations, 6 CCR 1007-3, Part 279.30 for do-it-yourselfer (DIY) used oil collection centers. Owners or operators of all DIY used oil collection centers must comply with the generator standards in 6 CCR 1007-3, Part 279, Subpart C.

(B) For the co-mingling of used oil residentially generated by DIY with commercially generated used oil, the collection facility must comply with requirements set forth in the Colorado Hazardous Waste Regulations, 6 CCR 1007-3, Part 279.31 for used oil collection centers.

16.4 [RESERVED]

16.5 MANAGEMENT OF RESIDENTIALLY GENERATED WASTE ELECTRONIC DEVICES

16.5.1 Waste Electronic Device Disposal

(A) Land disposal of residentially generated waste electronic devices is prohibited.

(B) A person shall manage waste electronic devices by one of the following entities that offers to accept waste electronic devices, including but not limited to:

1) A registered recycling facility, as described in Section 8;

2) A commercial retailer, wholesaler, consignment store, or any business engaged as a collection facility;

3) A city or county household hazardous waste program or collection facility;

4) A temporary residential collection event for electronics recycling; or

5) A producer or retailer mail-back program.

16.5.2 Exemptions

Notwithstanding Subsection (A) of this Section, a person may dispose of a waste electronic device at a solid waste disposal site and facility only following approval by majority vote of the county commissioners exempting residents from this Section 16.5 for no more than a two year period if the county:

(A) Is unable to meet the minimum access requirements of 16.5.3; and

(B) Performs the good faith effort requirements of 16.5.4.

16.5.3 Minimum Access Requirements

A board of county commissioners shall only vote to exempt residents from this Section 16.5, if the county does not meet the minimum access to electronics recycling which includes:

(A) At least two electronic waste recycling collection events per year; or

(B) An ongoing electronic waste recycling program serving residents of the county.

16.5.4 Good Faith Effort Requirements

(A) A county shall make a good faith effort to establish electronics device recycling within the county prior to voting for an exemption to this Section 16.5.

(B) A good faith effort shall be documented by the county and include at a minimum:

1) Contacting the Department for assistance or reviewing the Department's webpage for the current list of electronic recycling options available;

2) Contacting at a minimum three registered recycling facilities who collect electronic waste, or recycling and waste associations who assist with collection events;

3) Coordinating with the county landfill or private landfill within the county to serve as an electronic waste collection facility or to perform periodic collection events; and

4) Coordinating with local municipalities within the county for electronic recycling collection events.

16.5.5 Used Electronic Device Management Standards

A retailer, wholesaler, or collection facility not subject to Section 8 that accepts and stores residentially generated waste electronic devices shall manage the used electronic devices in a manner that prevents the release of waste or waste constituents to the environment.

16.5.6 Disposal Site Signage

All solid waste disposal sites and facilities, transfer stations, and waste haulers shall post, in a conspicuous location at the facility, a sign stating that waste electronic devices will not be accepted for land disposal.

16.6 Waste Characterization Plans

Each solid waste site and disposal facility shall amend its waste characterization plan to include waste acceptance procedures designed to minimize the disposal of residentially generated waste electronic devices, used lead-acid batteries and used oil. Such procedures shall be implemented no later than July 1, 2013. Solid waste sites and disposal facilities shall include these waste screening procedures in the waste characterization and disposal plan required by Section 2.1.2(C). The prohibition on disposal of these waste types shall be incorporated into employee training required by Section 2.1.2(B)(3). Any solid waste disposal site and facility in substantial compliance with its waste characterization plan developed pursuant to section 30-20-110 (1) (g), and Section 2.1.2 of the Regulations, shall be deemed to be in compliance with this Section, so long as such waste characterization plan contains waste acceptance procedures to minimize the disposal of waste electronic devices, lead-acid batteries and used oil consistent with the requirements of this Section.

SECTION 17 COMMERICAL EXPLORATION & PRODUCTION WASTE IMPOUNDMENTS

17.1 GENERAL PROVISIONS

17.1.1 **Scope and Applicability**: This Section 17 applies to all commercial solid waste disposal sites and facilities with waste impoundments that accept exploration & production (EP) wastes for treatment, storage or disposal. Included in the scope of this Section 17 are discrete impoundment units, containment systems, ancillary equipment and other associated operations at the facility. In addition, Sections 1 and 2 of these Solid Waste Regulations are directly applicable to all such facilities unless specifically otherwise noted herein. This Section 17 does not apply to exploration and production waste impoundments regulated by the Colorado Oil and Gas Conservation Commission. Compliance with this Section 17 shall not relieve the facility owner or operator from his/her obligation to comply with the facility's certificate of designation and any other applicable federal, state or local statute, regulation, requirement or ordinance.

17.1.2 **Effective Date**: This Section 17 was adopted by the Solid and Hazardous Waste Commission on November 18, 2008 and became effective on December 30, 2008.

17.1.3 **Compliance Schedules**

17.1.3(A) An application to amend a facility's certificate of designation to incorporate the requirements of these Solid Waste Regulations must be filed by the owner or operator of existing commercial EP waste impoundment facilities with the local governing authority within three (3) months of the effective date of this Section 17. If an existing facility does not have a certificate of designation, and one is required under 30-20-102 C.R.S., then the owner or operator of the facility must submit an application for certificate of designation to the local governing authority within three (3) months of the effective date of this Section 17.

17.1.3(B) Within twenty-four (24) months of the effective date of this Section 17, all facilities must comply with these Solid Waste Regulations.

17.1.3(C) Within eighteen (18) months of the effective date of this Section 17, facilities that cannot meet the compliance schedule specified in 17.1.3 (B) must make a demonstration to the Department showing why this compliance schedule cannot be met, and must request an alternate schedule for coming into compliance with this Section 17. Such extension shall be subject to Department approval, but the deadline for coming into compliance may be extended no later than thirty-six (36) months after the effective date of this Section 17 per the requirements of HB 08-1414.

17.2 ENGINEERING DESIGN AND OPERATION PLAN

The owner or operator of each commercial EP waste impoundment shall submit an engineering design and operation plan to the Department and the Local Governing Authority for review and approval, prior to commencing impoundment construction, storage, treatment or disposal operations. The plan shall describe how the facility will comply with all applicable requirements in these Solid Waste Regulations.

17.2.1 All portions of the facility design and site investigation shall be reviewed and sealed by a Colorado registered professional engineer or reviewed and signed by a professional geologist, as appropriate.

17.2.2 The engineering design and operation plan shall include the following subject areas, at a minimum:

17.2.2(A) **General Information**

(1) Owner and Operator mailing address, county and legal description of the solid waste disposal facility;

(2) Site area, in acres;

(3) Type of treatment, disposal, storage and containment features, monitoring and operational practices to be used at the facility; and

(4) Discussion of facility's service area, including transportation corridors and surrounding access.

17.2.2(B) **Site Investigation**

17.2.2(B)(1) **Geologic Data**: The engineering design and operations plan shall include, at a minimum, the following geologic data:

(a) Types and regional thickness of unconsolidated soils and materials;

(b) Types and regional thickness of consolidated bedrock materials; and

(c) Regional and local geologic information, including but not limited to bedrock strike and dip, fracture patterns, slope stability, fracturing, faulting, folding, rockfall, landslides, subsidence or erosion potential, that may affect the design and operation of the facility for solid wastes disposal.

17.2.2(B)(2) **Hydrologic data.** The engineering design and operations plan shall include, at a minimum, the following hydrological data:

(a) Lakes, rivers, streams, springs, or bogs, on-site or within two (2) miles of the site boundary;

(b) Depth to and thickness of perched zones and uppermost aquifers;

(c) Groundwater wells within one (1) mile of the site boundary, including well depth, depth to water, screened intervals, yields and the aquifers tapped;

(d) Hydrologic properties of the perched zones and uppermost aquifer, including flow directions, flow rates, porosity, coefficient of storage, permeability, limits of saturation and potentiometric surface;

(e) Site location in relation to the base floodplain of nearby drainages;

(f) The separation between the wastes to be impounded and the uppermost water-bearing zone, perched or otherwise;

(g) An evaluation of the potential for impacts to existing surface water and ground water quality from each of the proposed impoundment units and ancillary equipment, if more than one, or the facility if only one unit exists;

(h) The existing quality of ground water beneath the proposed facility;

(i) Any other associated factors related to the time of travel from the midpoint of each cell to the point of compliance;

(j) Climatic factors;

(k) The estimated volume, physical and chemical characteristics of the waste;

(l) The distance ground water beneath the site would flow during the facility's operating life and post-closure care period; and

(m) The distance to existing domestic wells or springs and proposed future development shown to use the uppermost aquifer or monitored unit down gradient of the site.

17.2.2(C) **Facility Design**: The engineering design and operations plan shall include specific design details for each solid waste impoundment and all associated structures and ancillary equipment used to store, treat or dispose of solid waste.

17.2.2(C)(1) **Engineering Data.** The engineering design and operations plan shall contain, at a minimum, the following engineering data:

(a) The types and quantity of material(s) that will be required for use as liner material in the upper and lower components of the liner system;

(b) Maps and plans, drawn to a common recognized engineering scale, that show the following;

(i) The location and depth of cut or fill for liners;

(ii) The location, dimensions and grades of all surface water control structures;

(iii) The location and dimensions of all surface water containment structures, including those designed to impound contaminated runoff, sludge, or liquids for treatment;

(iv) The spatial distribution of engineering, geologic and hydrologic data, and relationship to the proposed facility and each individual impoundment unit;

(v) The location of all proposed facility structures and access roads;

(vi) The location of all proposed monitoring points for surface water and ground water quality;

(vii) The final contours and grades of the reclaimed site after closure;

(viii) The location of fencing or other access control features to be placed on-site;

(ix) The location of each proposed phase of development; and

(x) The design details of the impoundment liner including size and total volume at capacity.

17.2.2(C)(2) **Liner System Design Specifications**: The engineering design and operation plan shall provide the following specifications relative to each liner system component:

(a) **Compacted Clay Liner**:

i) Compaction;

ii) Density;

iii) Moisture content; and

iv) The design hydraulic conductivity.

(b) **Flexible Membrane Liner**:

i) The selected flexible membrane liner product;

ii) Thickness;

iii) Manufacturer Specifications; and

iv) Evidence demonstrating compatibility with all waste streams proposed to be managed in the waste impoundment.

17.2.2(C)(3) **Demonstration of Groundwater Protection**: Impoundment facilities shall demonstrate that the design proposed for the facility complies with all applicable sections of this Section 17, and complies with Sections 2.1.15 and 2.2 of these Solid Waste Regulations and Regulation 41 (5 CCR 1002-41). Such demonstration shall include the following information:

(a) Liner hydraulic conductivity;

(b) Thickness of each liner type;

(c) Slope of the liner layer;

(d) Hydraulic head on the liner;

(e) The waste or waste streams to be impounded, including their constituent toxicity, mobility and persistence in the environment;

(f) Distance from the midpoint of each cell to relevant point of compliance at the downgradient edge of each impoundment;

(g) Distance to, and characteristics of, the uppermost aquifer or monitored unit;

(h) Climatic factors;

(i) The estimated volume and physical and chemical characteristics of the wastes to be impounded;

(j) The chemical compatibility of the wastes to be impounded with the liner; and

(k) The development and installation of a groundwater monitoring system.

17.2.2(C)(4) **Monitoring System and/or Leak Detection System**: Construction details shall be provided for all proposed monitoring points for surface water and groundwater quality and the monitoring system used to make volume and freeboard determinations.

17.2.2(C)(5) **Ancillary Storage**: Facilities which include tanks or tank systems, or other ancillary storage and treatment equipment, must include plans, design criteria and specifications for each waste storage and waste treatment device in the facility's engineering design and operations plan.

17.2.2(D) **Construction**: The design and operation plan must include a quality assurance and quality control plan (QA/QC) for all engineered structures and appurtenances. The QA/QC Plan must be reviewed and approved by the Department and governing authority prior to commencing construction of any waste management features at the facility.

17.2.2(E) **Facility Operations**: The engineering design and operations plan shall include specific operational details for each solid waste impoundment and all associated structures or ancillary equipment used to store, treat or dispose of solid waste. The plan shall also include the following operational data, at a minimum:

(1) The names, qualifications and addresses of the persons operating the facility and having the authority to take corrective action in the event of noncompliance;

(2) The business hours for the facility;

(3) Access control measures, including the types and height of fencing to be placed onsite;

(4) A listing of the waste stream types to be approved for routine receipt and anticipated volumes in barrels or gallons/per day of wastes to be received;

(5) The expected life of the site or unit;

(6) The number and job descriptions of personnel projected to be employed at the impoundment facility when operating;

(7) Type of equipment projected to be used at the facility;

(8) The size (surface area and volume) and types of impoundments or processing areas to be constructed;

(9) Provisions to minimize nuisance conditions on-site and prevent nuisance conditions from occurring off-site;

(10) Provisions for fire protection, including the amounts and sources of onsite water available to be used for fire protection; and

(11) Facility inspections, both the frequency of inspections by the operator and associated written documentation of the condition of impoundment embankments and related piping or structures.

17.2.2(F) **Contingency Plan**: The Engineering Design and Operation Plan shall include a contingency plan. The plan shall describe what actions will be taken should one of the situations below occur. The plan must be implemented as described in Section 17.3.3(L), to address the following situations:

(1) Plans to be implemented in the event of a release from the impoundment resulting in potential contamination of surface waters or groundwater;

(2) Plans to be implemented if liquids are discovered in the leak detection system; and

(3) Conditions of non-compliance with these Solid Waste Regulations or the facility's approved plans necessitating corrective action.

17.2.2(G) **Waste Characterization Plan**: The plan shall contain the following sections at a minimum:

(1) A description of how the facility will comply with 2.1.2 of these Solid Waste Regulations;

(2) Provision for annual profiling and analysis of waste streams and of impoundment contents consistent with Sections 17.3.3(C)(2) and 17.3.3(C)(3); and

(3) Provision for random sampling of incoming wastes by the facility consistent with Section 17.3.3(C)(4).

17.2.2(H) **Personnel Training Plan**: The facility shall develop a personnel training plan based on job responsibilities and duties that includes the following provisions:

(1) Job-specific annual training in the facility's design and operation plan, including all attachments to the plan and all documents referenced in the plan that are relevant to operational compliance, and

(2) Job-specific annual training in the recognition of hazardous and prohibited wastes.

17.2.2(I) **Sitewide Monitoring Plan**: The facility shall develop a sitewide monitoring plan, inclusive of groundwater monitoring, stormwater monitoring, ancillary equipment (if present), leak detection monitoring and monitoring of liquid wastes.

17.3 DESIGN, CONSTRUCTION AND OPERATION REQUIREMENTS

A liner system is required by statute for all commercial solid waste disposal sites and facilities managing EP waste.

17.3.1 Design Requirements

17.3.1(A) Liner System

17.3.1(A)(1) **Liner Requirements**: The statutory performance requirement for EP waste disposal facilities is to prevent migration of EP waste to groundwater. Therefore, each waste impoundment covered by this section shall be lined with a composite liner as described in Section 17.3.1(A)(2) or a double liner system as described in Section 17.3.1(A) (3), and the facility design must include leak detection monitoring in accordance with Section 17.3.1(C) to prevent the migration of EP waste or EP waste constituents to groundwater. The owner or operator of the facility shall demonstrate, to the Department and the local governing authority, that the design developed for the facility will comply with this Section 17 and Sections 2.1.15 and 2.2 of these Solid Waste Regulations, and with Regulation 41 (5 CCR 1002-41). Such demonstration shall be subject to Department approval.

17.3.1(A)(2) **Composite Liner System**: A composite liner shall consist of an upper and lower component.

(a) The upper component shall consist of a minimum 60-mil high-density polyethylene (HDPE). The upper component shall be installed in direct and uniform contact with the compacted soil component; and

(b) The lower component shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity less than or equal to 1×10^{-7} cm/sec.

17.3.1(A)(3) **Double liner system**: A double liner consists of two liner systems separated by a drainage or leak detection layer. Each of the liner systems may be comprised of a single or composite liner configuration. At a minimum, a) one of the liner systems must incorporate a 60-mil HDPE or equivalent liner material as one of its liner components, and b) the other liner system must be equivalent to a two-foot layer of compacted soil with a hydraulic conductivity less than or equal to 1×10^{-7} cm/sec. The drainage layer between the liner systems contains transmissive material such as sand, gravel or a synthetic drainage blanket, and conveys liquid to a sump from which it can be extracted. This type of liner incorporates leak detection capability directly into the design, and may warrant the Department's consideration of a modified Appendix B groundwater monitoring program.

17.3.1(A)(4) **Separation from Groundwater**: At a minimum, the facility shall ensure a separation of twenty (20) feet between the bottom of the liner system and the uppermost occurrence of groundwater.

17.3.1(A)(5) **Alternative liner designs**: Alternative liner designs that perform in an equivalent manner to the Section 17.3.1 (A) (2) or (A)(3) liner systems may be approved by the Department and the local governing authority based on a demonstration of alternate liner design's equivalent performance, the waste type and site specific technical information. At a minimum, the upper liner component shall be a 60-mil HDPE or equivalent synthetic liner. Proposals for alternative designs shall also demonstrate that the facility can comply with Sections 2.1.15 and 2.2 of these Solid Waste Regulations, and with Regulation 41 (5 CCR 1002-41).

17.3.1(B) **Mandatory Set-Backs**: For EP waste disposal facilities whose application for certificate of designation is submitted to the local governing authority after the effective date of this Section 17, the facility must have a mandatory set-back of one-half mile from all residences, educational facilities, day-care centers, hospitals, nursing homes, jails, hotels, motels, other occupied structures, or outside activity areas such as parks and playing fields.

17.3.1(C) **Leak Detection Monitoring System**: All EP waste impoundments must include leak detection monitoring consistent with the liner design specific to that impoundment.

17.3.1(C)(1) Composite single liner systems must incorporate one of the following:

(i) Vadose Zone Monitoring (wet/dry wells);

(ii) Resistivity net;

(iii) Downgradient impoundment edge groundwater monitoring; or

(iv) Other equivalently protective system as approved by the Department.

17.3.1(C)(2) **Double liner system**: The leak detection is incorporated into the interstitial drainage layer. Sampling of leak detection liquids must be performed immediately upon discovery. Downgradient point-of-compliance groundwater monitoring shall be conducted, as necessary, based upon history of impoundment liquids detected in the leak detection system.

17.3.1(D) **Continuous Freeboard Monitoring**: All waste impoundment facilities or units shall be equipped with a means to, at all times, quickly and accurately determine the total volume of waste and amount of freeboard in each impoundment.

17.3.1(E) **Access Control**: Each waste impoundment covered by this section shall be equipped with fencing and netting to prevent the public and wildlife from accessing the waste disposal facility. Facilities shall control public access, prevent unauthorized access and provide for site security both during and after business hours, and prevent illegal dumping of wastes. Effective artificial barriers or natural barriers as approved by the Department may be used in lieu of fencing.

17.3.1(F) **Stormwater Control**: Each waste impoundment shall be designed, constructed and maintained to provide: (1) a run-on control and diversion structures to prevent flow into the unit from a 25-year, 24-hour storm, (2) a run-off control system to collect runoff from a 25-year, 24-hour storm and control run-off from a 100-year, 24-hour storm. Precipitation that cannot be diverted from the impoundment, and therefore comes in contact with impounded waste, shall be managed as solid waste. Each impoundment shall be designed, constructed and maintained to prevent damage to the containment structure from erosion.

17.3.1(G) **Embankment Durability**: Embankments shall be designed to eliminate erosion and to withstand deterioration caused by the impounded waste.

17.3.2 **Construction Requirements**

17.3.2(A) Waste impoundments shall be constructed according to Department-approved detailed design plans, specifications and criteria. The owner or operator of each facility shall develop and implement a Quality Assurance/Quality Control (QA/QC) program to demonstrate that each engineered containment structure at the facility has been constructed in accordance with the facility's approved Engineering Design and Operation Plan and the facility's approved QA/QC Plan.

17.3.2(B) Synthetic liners shall be installed according to the manufacturer's instructions, which shall be submitted as part of the facility's engineering design and operations plan.

17.3.2(C) The construction will be tested and evaluated using quality control and quality assurance measures and methods specified in the facility's approved Engineering Design and Operation Plan and QA/QC Plan. The resulting QA/QC information, including daily visual observations, moisture, density and hydraulic permeability test results, shall be submitted as part of a construction certification report to the Department and local governing authority for review and approval.

17.3.2(D) During construction and prior to the addition of liquid wastes, liner systems shall be protected from erosion, desiccation, drying, UV degradation or other damage.

17.3.2(E) At least ninety (90) calendar days prior to the commencement of waste acceptance into the impoundment facility, the owner or operator of the facility shall submit the construction certification report to the Department and the local governing authority. This report shall certify that the construction has been completed in accordance with the facility's approved engineering design and operation plan and approved QA/QC Plan. The construction certification report shall be signed and sealed by a Colorado registered professional engineer and shall be subject to Department approval prior to the acceptance of waste. Nothing in these Solid Waste Regulations precludes separate review and approval by the local governing authority as well. Construction certification reports shall be developed, approved and implemented for all engineered structures and ancillary equipment used to manage solid waste at the facility.

17.3.3 **Operating Requirements**

17.3.3(A) **Compliance with Approved Plans**: Operation of waste impoundments shall be in accordance with all approved plans, and with the minimum standards found in Sections 1, 2 and 17 of these Solid Waste Regulations.

17.3.3(B) **Commingling of Wastes**: Incompatible wastes shall not be commingled.

17.3.3(C) **Waste Characterization**:

17.3.3(C)(1) The owner or operator of commercial EP waste disposal facilities shall develop and implement waste analysis procedures to ensure that only EP waste is disposed of at the facility. The disposal of waste streams different from those originally approved shall constitute a significant change in operation and require an approval by the Department and the local governing authority prior to acceptance at the facility. An amendment to the facility's certificate of designation may be required.

17.3.3(C)(2) The owner or operator of each commercial EP waste impoundment facility shall initially profile and then conduct annual testing on each waste stream entering the facility, including, at a minimum, waste from each well and/or each tank battery and each drilling location, to demonstrate conformance with the original analyses. Each facility must also ensure that EP waste generators using the facility notify the facility when there has been a change in their processes or waste composition.

17.3.3(C)(3) The owner or operator of each EP waste disposal facility shall analyze at least one sample of the contents of each impoundment annually for the suite of analytes included in Appendix II of the Solid Waste Regulations. Such analysis shall be performed using appropriate methods as specified in the site-wide monitoring plan to provide an accurate representation of constituents and concentration levels found in the waste. If the impounded wastes are subject to stratification, a separate sample shall be taken from each representative level, including settled sludge and oil or other surface accumulation.

17.3.3(C)(4) Annual testing of unannounced grab samples shall be taken from random vehicles entering the facility and analyses conducted for the original or approved amended list of parameters. If any waste is found to differ from the original analysis, the Department and local governing body having jurisdiction shall be notified in writing within seven (7) calendar days, and a request to modify the design and operation plan submitted to the Department and local governing authority for review and approval prior to continuing acceptance the identified waste stream.

17.3.3(C)(5) EP waste disposal facilities shall not receive hazardous waste and will conduct waste profiling in accordance with Section 2 and their approved waste characterization plan (as amended to conform to this Section 17).

17.3.3(D) **Liner Protection**: The owner or operator of EP waste disposal facilities shall maintain the integrity of liners by prevention of damage through uncontrolled or improper discharge of wastes into the impoundment, vehicle traffic, dredging of settled sludge, skimming and maintenance of spray systems erosion, desiccation, drying, UV degradation or other damage or other actions.

17.3.3(E) **Removal of Surface Accumulation**: All evaporative impoundments shall be safeguarded and maintained free of oil or other surface accumulations. Any accumulation of oil or surface accumulations shall be removed within twenty-four (24) hours of discovery. Discovery and removal dates and times shall be documented.

17.3.3(F) **Leak Detection Monitoring**: Per statutory requirement, EP waste disposal facilities shall conduct monitoring not only to detect, but also to prevent, releases that impact groundwater. If the liner design incorporates a double liner system, this can be readily accomplished through monitoring of the drainage layer. However, if the liner design consists of a single composite liner, monitoring to provide leak detection capability must be implemented in accordance with Section 17.3.1(C) beneath or adjacent to the impoundment.

17.3.3(G) **Groundwater Monitoring**: The owner or operator of a commercial EP waste impoundment facility shall conduct groundwater monitoring in accordance with a Department-approved groundwater monitoring plan. Monitoring parameters shall be established based on the hydrogeologic data related to the site, the type of waste stream(s) accepted at the facility and waste characterization results.

17.3.3(H) **Surface Water Monitoring**: Surface water monitoring, including monitoring of seeps, is required where seepage has been detected or other releases have been identified.

17.3.3(I) **Continuous Fluid Level Monitoring**: Continuous fluid level and freeboard level monitoring is required for each impoundment. Maximum liquid level shall be measured continuously so that each impoundment has a minimum of two (2) feet of freeboard, measured from the lowest elevation berm of a specific impoundment to the upper surface of the impounded waste. Fluid level measurement points for each impoundment shall be established, and continuously maintained.

17.3.3(J) **Mass Balance**: To ensure the accuracy of the method used for monitoring fluid level and to check for potential liner leaks, monthly monitoring of total volume for each impoundment shall occur.

17.3.3(K) **Attendant**: Commercial EP waste impoundment facilities shall maintain at least one trained attendant on site during scheduled business hours and when accepting waste.

17.3.3(L) **Contingencies**:

The owner or operator shall develop, implement and maintain an approved contingency plan (See Section 17.2.2(F), engineering design and operation plan) to be implemented in the following situations: 1) an unplanned release from the containment system, 2) leachate observed in the leak detection system and 3) conditions of noncompliance with approved plans or certificate of designation or the Solid Waste Regulations necessitating corrective action. The contingency plan must contain provisions for assessing the full nature and extent of release to delineate the impact to soil, groundwater or surface water, for remedying such impact, and for returning the facility to compliance. If a facility has an approved Spill Prevention Control and Countermeasures (SPCC) Plan, then the Department will accept a modified approved SPCC Plan that also incorporates the additional requirements as specified in these Solid Waste Regulations. If the facility does not have an approved SPCC Plan, then the Contingency Plan must include all of the provisions identified in this Section 17 of the Solid Waste Regulations.

17.3.3(L)(1) As part of the facility's implementation of the contingency plan, the owner or operator shall take the following actions, at a minimum:

(a) Cease adding waste into the impoundment;

(b) Close and empty the impoundment to repair leaks; and/or

(c) Remove any liquid from the leak detection system on a daily basis, or more frequently as necessary; and

(d) Measure and record the volume of waste removed.

17.3.3(L)(2) The owner or operator shall notify the Department and the local governing authority within twenty-four (24) hours of any identified release from a waste impoundment or ancillary equipment or any incident requiring implementation of the Contingency Plan. Within seven (7) calendar days of the incident, the owner or operator shall provide written notification outlining immediate actions taken.

17.3.3(L)(3) A detailed written assessment of the impact of leakage, repair completion and verification, and the need for additional monitoring and proposed corrective action shall be submitted by the owner/operator within forty five (45) calendar days to the Department and local governing authority. Repairs affecting an engineered feature at the facility must be certified by a Colorado registered P.E, in accordance with 17.3.2(E)

17.3.3(M) **Facility Inspections**: The owner or operator of the facility shall implement a weekly facility inspection program. The inspection provisions shall cover all waste treatment, disposal, containment and storage features at the facility, including tanks and ancillary equipment. At a minimum, these inspections shall examine ground movement, cracks, erosion, leaks, equipment connections, influent and effluent locations, rodent burrows, vegetation growing on a liner system, damage to ancillary equipment, spills, detection of liquids in sumps, fires or explosions, or other events or problems which could affect the operation of the facility or jeopardize the integrity of an impoundment. Leak detection and collection systems shall also be inspected weekly for the presence of any liquids. If liquids are detected, samples shall be taken and analyzed immediately, and a determination made, as to the source of the liquid in the leak collection system. Other aspects of the waste containment system, including tanks and ancillary equipment, shall be inspected on a weekly basis as well.

17.3.3(N) **Financial Assurance**: Financial assurance of an adequate amount to cover closure and post-closure care costs shall be established in accordance with Section 4 of these Solid Waste Regulations.

17.4 RECORDKEEPING AND REPORTING REQUIREMENTS

17.4.1 **Availability of Records**: Monthly summary records of waste receipts shall be maintained for a minimum of three (3) years during the operating life of the facility documenting the origin, volume in storage, shipment to other facilities, and rate of disposal of all wastes. All records, including but not limited to facility inspection logs, daily depth/volume readings, precipitation, waste and monitoring analyses, freeboard and load receipts shall be maintained on-site unless otherwise approved by the Department. Those records shall be available for inspection by representatives of the Department and the local governing authority during regular business hours.

17.4.2 **Evaporative Treatment**: The owner or operator of a facility employing forced evaporative treatment shall calculate and record on a quarterly basis the total volume of all wastes treated and evaporated in each impoundment.

17.4.3 **Incoming Waste Shipments**: Each shipment of solid waste being disposed of at a waste impoundment facility which is subject to the Solid Waste Regulations and the Act shall be registered, with the following information entered on a single receipt or manifest:

(A) Date and time;

(B) Receiving impoundment identification;

(C) Quantity;

(D) Type of waste;

(E) Location produced;

(F) Waste generator;

(G) Hauler and truck number; and

(H) Driver's name and signature.

17.4.4 **Record Retention**: Each waste impoundment facility shall maintain the following records:

(A) Individual load receipts for at least three (3) years.

(B) Monthly summaries shall be maintained for a minimum of three (3) years during the operating life and post closure care period of the facility. Monthly summaries for each impoundment shall contain the following: (1) total volume of each waste stream disposed, and (2) waste stream identification(s).

17.4.5 **Annual Report**: Each commercial EP waste impoundment facility shall submit an annual report by March 1st of each year to the Department and local governing authority. The annual report shall include:

(A) The total volume received for each waste type during the previous calendar year;

(B) Waste removed from the facility during the previous calendar year;

(C) Any planned or unplanned releases from an impoundment unit at the facility during the previous calendar year; and

(D) Documentation regarding all hazardous waste screening of the impoundments and random load screening documentation.

17.4.6 **Routine Monitoring**: All monitoring data shall be documented in the facility's operating record.

17.4.7 **Measurement Points**: Each measurement point for each impoundment shall be established, recorded in the operating record and continuously maintained in accordance with Section 17.2.2(C)(4).

17.4.8 **Fluid level measurement points** for each impoundment shall be maintained in the facility operating record.

17.4.9 **Mass Balance**: Documentation of monthly total volume monitoring conducted to check for leakage shall become part of the facility's operating record.

17.4.10 **Waste Characterization**: Waste characterization results indicating excursions from the facility's approved plans, such as inadvertent receipt of unapproved wastes, shall trigger notification in writing to the Department and the local governing authority within seven (7) calendar days after receipt of such results by the owner or operator.

17.4.11 **Contingency**: Contingency notification and reporting shall be conducted as required in Section 17.3.3(L). Notification within twenty-four (24) hours to the Department and local governing authority and written notification within seven (7) calendar days of the incident outlining immediate (within 24 hours of any identified release) actions taken. The facility shall submit to the Department and the local governing authority a detailed written assessment of any situation requiring implementation of the facility's contingency plan within forty-five (45) calendar days of the occurrence.

17.4.12 **Inspections**

Records shall be maintained that fully document all inspections, damage, repairs and repair verifications to impoundments, the liners systems or ancillary equipment. Such documentation shall be inclusive of all requirements of Section 17.3.3(M). Written notification shall be provided to the Department and local governing authority within seven (7) calendar days after discovery of such liner damage or other event which affects the operation and environmental protectiveness of the facility.

17.5 CLOSURE

17.5.1 The owner or operator of an impoundment facility shall develop a closure plan, which meets the following minimum criteria:

17.5.1(A) The closure plan shall be prepared as part of the Engineering Design and Operations plan and shall describe the steps necessary to close the impoundment facility at any point during its active life. If at any time a facility ceases operation, including the discontinued receipt, treatment or processing of waste for more than thirty (30) calendar days, the owner or operator shall notify the Department and local governing authority and unless otherwise approved by the Department and the governing body, the owner or operator must begin implementation of its Closure Plan in accordance with the approved schedule required in 17.5.1(B)(1).

17.5.1(B) The closure plan, at a minimum, shall include the following information:

(1) A schedule for implementing all activities associated with the closure process, with any change to this schedule requiring Department approval;

(2) Provisions for removal of all equipment at the site;

(3) Provisions for removing all liquid wastes from the impoundments;

(4) Proposed plans and procedures for sampling and testing soil and groundwater at the site;

(5) **Background Study**: Provisions for conducting a background constituent concentrations study prior to receipt of waste at the Facility or on a schedule approved by the Department. The Background Study must include, at a minimum, the following:

a. Sampling Plan;

b. Analysis Plan;

c. Data Evaluation Plan;

d. Recommendations;

e. A description of anticipated post disposal land use; and

f. A schedule for completing all activities necessary to satisfy implementation of the Background Study.

(6) **Closure Verification Study**: Provisions for sampling and analyses of residual materials following removal of all liquid wastes from the impoundments, such as sludge and soil, for potential hazardous characteristics. The soils and residual materials sampling and analyses results will be compared against appropriate protective remediation goals or levels established in the Background Study on a case-by-case basis for establishing acceptable residual levels as approved by the Department. The Closure Verification must include, at a minimum, the following:

a. Sampling Plan;

b. Analysis Plan;

c. Data Evaluation Plan;

d. Recommendations;

e. A description of anticipated post disposal land use; and

f. A schedule for completing all activities necessary to satisfy implementation of the Closure Verification Study.

(7) Provisions for final disposal of all soils, sludges, or other wastes that exceed the acceptable residual levels approved by the Department.

17.5.2 Owners or operators of all impoundment facilities shall submit a report to the Department within sixty (60) calendar days of completing final closure activities. The report shall summarize the volume of each waste stream disposed in each impoundment, and list the name, address and phone number of person(s) responsible for post closure control of the facility.

17.5.3 Discrete units of the impoundment facility may be closed independently of closure of the entire facility.

17.5.4 At least sixty (60) calendar days in advance of the proposed closure date, the owner or operator must notify the Department and the local governing authority and place signs of suitable size at the entrance to the site and facility.

17.5.5 The owner or operator of the facility must complete closure activities of the facility in accordance with the closure plan and within one hundred eighty (180) calendar days following the final receipt of waste. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will take longer than one hundred eighty (180) calendar days and the owner/operator has taken and will continue to take all steps to prevent threats to human health and the environment.

17.5.6 Following closure of an impoundment facility, the owner or operator shall:

17.5.6(A) Record a notation on the deed to the facility property, or some other instrument that is normally examined during title search; and

17.5.6(B) Notify the Department and the local governing authority that a notation has been recorded on the deed and a copy has been placed in the operating record. The notation on the deed must in perpetuity notify any potential purchaser of the property that:

(1) The land has been used as an impoundment facility; and

(2) Its use may be restricted. The Department after consultation with the local governing authority may grant permission to remove the notation from the deed if all wastes and residual contamination are removed from the facility.

17.5.7 A closure certification report is required to be submitted within sixty (60) calendar days of completion of closure activities which documents all the requirements and conditions of the closure plan have been achieved. The Report must be signed and sealed by a Colorado registered professional engineer and is subject to review and approval by the Department.

17.6 POST-CLOSURE CARE AND MAINTENANCE

17.6.1 Following closure of the impoundment facility the owner or operator must conduct post-closure care, which shall consist of at least the following:

(A) Provisions to prevent nuisance conditions;

(B) Maintaining the integrity and effectiveness of the final cover, should waste be closed in place, including making repairs to the cover and replanting vegetation as necessary;

(C) Monitoring ground water in accordance with the requirements of Section 2.2 and maintaining the groundwater monitoring system, if applicable;

(D) Name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and

(E) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the function of the monitoring systems unless reviewed and approved by the Department.

17.6.2 Following completion of the post-closure care period the owner or operator must submit a certification signed by an independent Colorado registered professional engineer for approval by the Department and the local governing body having jurisdiction, verifying that post-closure care has been completed in accordance with the post-closure plan and has been placed in the operating record.

17.6.3 Post-closure care must be conducted for a minimum of thirty (30) years. The length of the post-closure care period may be:

(A) Decreased by the Department after consultation with the local governing authority if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment; or

(B) Increased by the Department after consultation with the local governing authority if it is determined that the lengthened period is necessary to protect human health and the environment.

SECTION 18 WASTE GREASE TRANSPORTERS, FACILITIES, AND PERSONAL USERS OF WASTE GREASE

SECTION 18.1- SCOPE and APPLICABILITY

The transport, storage, processing and disposal of waste grease must be done in accordance with this Section 18 of the Regulations and may also be subject to other requirements of these Regulations including, but not limited to, Sections 1, 7 and 8.

18.1.1 WASTE GREASE TRANSPORTERS

Sections 18.2 and 18.3 apply to any person transporting trap grease including commercial freight carriers under contract with a waste grease transporter.

18.1.2 WASTE GREASE FACILITIES

Sections 18.2 and 18.4 apply to all facilities, unless otherwise exempted, that collect, store, process, or dispose of trap grease in any manner.

18.1.3 PERSONAL USE OF WASTE GREASE OTHER THAN FOR USE AS BIOFUEL

Sections 18.2 and 18.5 apply to any person collecting, transporting, using, or storing waste grease for personal use other than for use as biofuel.

18.1.4 PERSONAL USE OF WASTE GREASE AS BIOFUEL

Sections 18.2 and 18.6 apply to any person collecting, transporting, using, or storing waste grease for personal use as biofuel.

18.1.5 AUTHORITY

These rules are adopted pursuant to Section 30-20-123 (9)(a), C.R.S.

18.1.6 EXEMPTIONS

This Section 18 does not apply to:

(A) A domestic wastewater treatment works, as defined in Section 25-8-103, C.R.S., that processes waste grease as part of its operations that are regulated by the Department pursuant to Article 8 of Title 25, C.R.S.

(B) Any person who is not engaged in the business of collecting, transporting, or disposing of waste grease or to any person who unknowingly collects, transports, or disposes of waste grease. If a solid waste hauler discovers waste grease in a quantity regulated by the Department, the solid waste hauler must notify the Department immediately. The Department will determine if the solid waste hauler has to register in order to collect, transport, or dispose of the waste grease.

(C) A person who only travels through the state with waste grease as part of interstate commerce and does not collect, deposit, transfer, store or dispose of any waste grease within this state.

(D) A person who transports products made from waste grease for sale or other distribution.

(E) [RESERVED]

(F) [RESERVED]

(G) Response activities performed or approved by the governing body having jurisdiction. However, waste grease collected from a response activity must ultimately be transported to a registered waste grease facility or a domestic wastewater treatment plant.

(H) The collection, processing or storage of waste grease in a grease trap, grease interceptor, waste grease bin/barrel or similar grease removal device at the point of waste grease generation.

SECTION 18.2 - GENERAL PROVISIONS

18.2.1 COMPLIANCE WITH OTHER LAWS

Waste Grease Facilities, Waste Grease Transporters, Personal Users of Waste Grease Other than For Use as Biofuel, and Personal Users of Waste Grease as Biofuel must comply with all local, state, and federal laws, regulations, ordinances, and other requirements.

18.2.2 OPERATIONS COVERED BY MULTIPLE PARTS OF THIS SECTION 18

Waste Grease Facilities, Waste Grease Transporters, Personal Users of Waste Grease Other than For Use as Biofuel, and Personal Users of Waste Grease as Biofuel may perform activities at their facilities that are regulated by multiple parts of this Section 18. If so, these entities must register accordingly and comply with the requirements of all applicable parts of these regulations.

18.2.3 WASTE GREASE SOURCES AND GENERATORS

A person who arranges for transportation or disposal of waste grease must only contract with, engage, employ, or use a person who is registered as a Waste Grease Transporter, is a Personal User of Waste Grease as Biofuel who uses waste grease for personal use as biofuel as defined in part 18.6 of this Section, or is registered as a Personal User of Waste Grease Other than For Use as Biofuel who uses waste grease for personal use other than for biofuel as defined in part 18.5 of this Section.

SECTION 18.3 - STANDARDS FOR WASTE GREASE TRANSPORTERS

18.3.1 GENERAL

This Section 18.3 applies to any person transporting waste grease including commercial freight carriers under contract with a waste grease transporter.

(A) A person may only transport waste grease to the following types of facilities, sites and users in Colorado:

1. A registered waste grease facility;

2. A domestic wastewater treatment works, as defined in Section 25-8-103 C.R.S., that processes waste grease as part of its operations that are regulated by the Department pursuant to Article 8 of Title 25, C.R.S.;

3. To their own facility pursuant to Section 18.3.8 of these Regulations.

(B) A person registered as a Waste Grease Transporter pursuant to Section 18.3.2 of these Regulations may collect waste grease from a generator/source of waste grease who is not registered as a Waste Grease Facility only if the Waste Grease Transporter creates a manifest for the load of waste grease pursuant to Section 18.3.4 of these Regulations, and ensures delivery of the waste grease only to a facility listed in Section 18.3.1(A) above.

(C) All Waste Grease Transporters shall collect litter in and around any area used to store waste grease at their facility in order to avoid a fire hazard or a nuisance and control the growth of vegetation to minimize potential fuel sources.

(D) Waste Grease Transporters shall ensure that all grease, greasy liquid, water and solids from each grease trap or grease interceptor is removed during each time of removal.

18.3.2 REGISTRATION FOR WASTE GREASE TRANSPORT

(A) No person shall transport a load of more than 55 gallons of waste grease at one time unless he/she has registered with the Department by submitting an application for Waste Grease Certificate of Registration as a Colorado Waste Grease Transporter (Form WG-1) to the Hazardous Materials and Waste Management Division of the Department and received a Waste Grease Certificate of Registration from the Department.

(B) An application for a Waste Grease Certificate of Registration as a Waste Grease Transporter shall be submitted on Form WG-1, available by contacting the Department or at the Department's website. The application shall be delivered to the Department and shall include, at a minimum, the following information:

(1) The business name of the Waste Grease Transporter and any other names under which the Waste Grease Transporter may do business;

(2) The principal business address of the Waste Grease Transporter and any other address where the Waste Grease Transporter shall conduct commercial transportation of waste grease for storage or disposal activities in this state;

(3) A business telephone number(s);

(4) The name and address of the principal officer of a corporate Waste Grease Transporter or the owner(s) of a Waste Grease Transporter operating a proprietorship or partnership;

(5) The original signature and date of signature of the Waste Grease Transporter applicant;

(6) The number of vehicles the Waste Grease Transporter uses to transport waste grease in Colorado;

(7) A vehicle description sheet which lists each vehicle the Waste Grease Transporter will use to transport waste grease, and includes, as appropriate, the following information for each vehicle: the size/capacity of the tank used to hold waste grease, the license plate number, the state in which the vehicle is registered, the Vehicle Identification Number ("VIN") or other unique vehicle identifier, the make/model and year, and the registered owner; and

(8) Evidence that a surety bond or other debt instrument or method of financial assurance has been posted in accordance with Section 18.3.5 of these Regulations.

(C) The Department shall issue an initial Waste Grease Certificate of Registration and corresponding vehicle decals to a waste grease transporter if the waste grease transporter has submitted an application to the Department containing all information required in Section 18.3.2(B) above. The Department shall issue subsequent Waste Grease Certificate of Registrations and corresponding vehicle decals in following years to a waste grease transporter if the waste grease transporter has submitted an application to the Department containing all information required in Section 18.3.2(B) above and has submitted the annual report required by Section 18.3.6 below.

(D) The Waste Grease Certificate of Registration for a Waste Grease Transporter shall be valid from the date of issuance to July 15 of the following year.

(E) A Waste Grease Transporter is not authorized to transport waste grease after the July 15 expiration date unless the Waste Grease Transporter has submitted a complete application to the Department to renew the Waste Grease Certificate of Registration as a Waste Grease Transporter pursuant to this section.

(F) All Waste Grease Transporters who continue transporting waste grease shall submit an application for renewal no later than June 1 of each year.

(G) A legible copy of the Waste Grease Certificate of Registration shall be maintained and made available for inspection at the Waste Grease Transporter's principal place of business and in each vehicle used by the Waste Grease Transporter for transporting waste grease in Colorado.

(H) A Waste Grease Certificate of Registration is not transferable by the Waste Grease Transporter to whom it was issued to any other person or entity.

(I) The Department may revoke a Waste Grease Transporter's Certificate of Registration for failure to comply with the Act and the Regulations.

18.3.3 WASTE GREASE TRANSPORTER DECALS

(A) No person shall transport a load of more than 55 gallons of waste grease at one time in Colorado without having received a Waste Grease Transporter vehicle decal(s). An application for a Waste Grease Certificate of Registration submitted pursuant to Section 18.3.2 above shall also serve as the application for a Waste Grease Transporter's vehicle decal(s).

(B) Waste Grease Transporters will receive decals for each vehicle from the Department along with their Waste Grease Certificate of Registration.

(C) Each Waste Grease Transporter vehicle decal shall be valid until July 15 of the following year and will have a unique number.

(D) A Waste Grease Transporter vehicle decal must be affixed to the lower left hand corner of the windshield of each vehicle the Waste Grease Transporter uses to transport waste grease, or in some other manner so the decal is visible on vehicles that do not have a windshield.

(E) A Waste Grease Transporter vehicle decal is not transferable by the Waste Grease Transporter to whom it was issued to any other person or entity and shall not be used for any vehicle not listed by the Registered Waste Grease Transporter on its application for a Waste Grease Certificate of Registration as a Waste Grease Transporter.

(F) Commercial freight carriers must obtain a temporary decal from the registered Waste Grease Transporter who contracts with them. A registered Waste Grease Transporter can apply for a set of five (5) temporary Waste Grease Transporter decals at the time of registration, or as needed, to be used only for commercial freight carriers. Such decals must include the original registration number, and the word "TEMP-1" up to "TEMP-5." The temporary decals must be displayed on the lower left hand side of the windshield at all times when the vehicle is under contract for waste grease transportation. Upon termination of contract, temporary decal(s) must be returned within twenty-four (24) hours to the registered Waste Grease Transporter. Commercial freight carriers must comply with Sections 18.3.1, 18.3.4, and 18.3.8.

18.3.4 MANIFEST REQUIREMENTS

(A) No Waste Grease Transporter may accept waste grease without properly completing a manifest pursuant to Section 18.3.4 of these Regulations.

(B) Paper or electronic copies of manifests for all shipments of waste grease accepted by a Waste Grease Transporter shall be maintained on-site at the Waste Grease Transporter's place of business and available for inspection for three (3) years from the date of delivery.

(C) A person transporting a load of more than 55 gallons of waste grease at one time must use the Uniform Waste Grease Manifest form WG-2, available by contacting the Department or at the Department's website. Each manifest will have a unique number that will be provided by the Waste Grease Transporter.

(D) The Uniform Waste Grease Manifest must be filled out and contain the following information:

(1) The name, address, telephone number, and facility registration number, if applicable, of the generator(s) or source(s) of the waste grease in the load;

(2) The amount in gallons of waste grease in the load picked up by the waste grease transporter at each generator or source;

(3) The name, address, telephone number and Waste Grease Certificate of Registration number of the Waste Grease Transporter and the Waste Grease Transporter vehicle decal number of the vehicle used to transport the waste grease;

(4) The date(s) of transport;

(5) The name, address, telephone number and Waste Grease Certificate of Registration number and Waste Grease Facility decal number of the registered destination facility, if applicable, to which the waste grease will be delivered; and

(6) The signatures, under penalty of perjury, of the Waste Grease Transporter and the secondary Waste Grease Transporter (if any).

(E) A person transporting a load of more than 55 gallons of waste grease at one time must do the following:

(1) Carry the Uniform Waste Grease Manifest of each load in the vehicle while transporting the waste grease described on the Manifest;

(2) Provide a completed copy of the Uniform Waste Grease Manifest for each load to the applicable waste grease generator/source of waste grease within thirty (30) days of delivery to the destination facility;

(3) Provide a completed copy of the Uniform Waste Grease Manifest for each load to the registered Waste Grease Facility within one business day of delivery; and

(4) Make a copy of any Uniform Waste Grease Manifest available to the Department upon request.

18.3.5 FINANCIAL ASSURANCE

A person transporting a load of more than 55 gallons of waste grease at one time must acquire and maintain financial assurance in the amount of $10,000 for the cleanup and proper disposal of waste grease in accordance with Section 4 of these Regulations.

18.3.6 ANNUAL REPORT

A person who transports a load of more than 55 gallons of waste grease at one time must submit an annual report to the Department on the Waste Grease Transporter Annual Report Form (Form WG-3). This form may be obtained by contacting the Department or is available at the Department's website.

(A) The report shall account for the amount of waste grease transported by the person during the previous calendar year (beginning January 1 and ending December 31). Waste grease quantities shall be reported in gallons.

(B) The annual report must be delivered to the Department by February 1 of each year and must include the following:

(1) The total number of waste grease pickups and the total amount of waste grease collected by the waste grease transporter from within Colorado for the applicable reporting period;

(2) The total amount of waste grease that is brought to Colorado locations by the waste grease transporter from out-of-state sources during the applicable reporting period;

(3) The total amount of waste grease that is taken from Colorado locations by the waste grease transporter to out-of-state destinations during the applicable reporting period;

(4) The total number of waste grease drop-offs and the final disposition of the total amount of waste grease collected during the applicable reporting period by listing each waste grease facility and the total quantities of waste grease that the waste grease transporter has delivered to each waste grease facility and/or domestic wastewater treatment works; and

(5) Documentation that the financial assurance is current.

18.3.7 ANNUAL REGISTRATION FEE

A Waste Grease Transporter shall pay an annual registration fee pursuant to Section 1.7.5 of these Regulations.

18.3.8 WASTE GREASE TRANSPORTER STORAGE REQUIREMENTS

Notwithstanding the requirements of Section 18.2.2. of these Regulations and the definition of "Waste Grease Facility" in Section 1.2, a Waste Grease Transporter may store waste grease in the initial vehicle used for collecting the waste grease or in a vehicle used for off-site transport from the Waste Grease Transporter's facility, for up to 21days without becoming a Waste Grease Facility.

18.4 - STANDARDS FOR WASTE GREASE FACILITIES

18.4.1 GENERAL

This Section 18.4 applies to all waste grease facilities that collect, store, process, or dispose of waste grease pursuant to Sections 30-20-113, C.R.S. or 30-20-123, C.R.S., except as exempted in 18.1.6 of these Regulations. In addition to the requirements imposed by this Section 18.4, Waste Grease Facilities that process or end-use grease are subject to the recycling requirements of Section 8 of these Regulations.

18.4.2 WASTE GREASE FACILITY REGISTRATON REQUIREMENTS

(A) No person shall operate a Waste Grease Facility without having received Waste Grease Certificate of Registration from the Department.

(B) An application for a Waste Grease Certificate of Registration as a Waste Grease Facility shall be submitted on Form WG-1, available by contacting the Department or at the Department's website. The application shall be delivered to the Department and shall include, at a minimum, the following information:

(1) The business name of the Waste Grease Facility and any other names under which the Waste Grease Facility may do business;

(2) The principal business address of the Waste Grease Facility;

(3) A business telephone number(s);

(4) The name and address of the principal officer of a corporate Waste Grease Facility or the owner(s) of a Waste Grease Facility operating a proprietorship or partnership;

(5) The original signature and date of signature of the Waste Grease Facility applicant;

(6) Evidence that financial assurance has been posted in accordance with Section 18.4.7 of these Regulations.

(C) The Department shall issue a Waste Grease Certificate of Registration and corresponding facility decal to a person if the person has submitted an application to the Department containing all information required in Section 18.4.2(B) above and has submitted the annual report required by Section 18.4.8 of these Regulations.

(D) The Waste Grease Certificate of Registration for a Waste Grease Facility shall be valid from the date of issuance to July 15 of the following year.

(E) A Waste Grease Facility is not authorized to accept, collect, store, process, or dispose of waste grease after the July 15 expiration date unless the Waste Grease Facility has submitted a complete application to the Department to renew the Waste Grease Certificate of Registration as a Waste Grease Facility pursuant to this section.

(F) All Waste Grease Facilities who continue accepting, collecting, storing, processing, or disposing of waste grease shall submit an application for renewal no later than June 1 of each year.

(G) A legible copy of the Waste Grease Certificate of Registration shall be maintained and made available for inspection at the Waste Grease Facility.

(H) A Waste Grease Certificate of Registration is not transferable by the Waste Grease Facility to whom it was issued to any other person or entity.

(I) The Department may revoke a Waste Grease Certificate of Registration for failure to comply with the Act and the Regulations.

18.4.3 WASTE GREASE FACILITY DECALS

(A) An application for a Waste Grease Certificate of Registration submitted pursuant to Section 18.4.2 above shall also serve as the application for a Waste Grease Facility decal.

(B) Waste Grease Facilities will receive a Waste Grease Facility decal from the Department along with their Waste Grease Certificate of Registration.

(C) Waste Grease Facility decals shall be valid until July 15 of the following year and will have a unique number that will be assigned by the Department. Prior to the expiration date, a Waste Grease Facility must submit a new application for a Waste Grease Certificate of Registration pursuant to Section 18.4.2 above.

(D) A Waste Grease Facility must post or affix their Waste Grease Facility decal to a prominent location at the address used to store/accumulate waste grease.

(E) A Waste Grease Facility decal is not transferable by the Waste Grease Facility to whom it was issued to any other person or entity.

18.4.4 MANIFEST REQUIREMENTS

(A) No Waste Grease Facility may accept a shipment of waste grease from a Waste Grease Transporter without an accompanying manifest properly completed pursuant to Section 18.3.4 of these Regulations.

(B) Paper or electronic copies of manifests for all shipments of waste grease accepted by a registered Waste Grease Facility shall be maintained on-site at the facility and available for inspection for three (3) years from the date of delivery.

(C) No Waste Grease Facility may offer a shipment of waste grease without an accompanying manifest properly completed by the Waste Grease Transporter pursuant to Section 18.3.4 of these Regulations.

(D) Manifests for all shipments of waste grease offered by the Waste Grease Facility shall be maintained on-site at the facility and available for inspection for three (3) years from the date of pick-up.

18.4.5 STANDARDS FOR WASTE GREASE FACILITIES

(A) All Waste Grease Facilities shall maintain all weather access roads to those areas of the facility where waste grease is stored.

(B) All Waste Grease Facilities shall collect litter in and around any area used to store waste grease in order to avoid a fire hazard or a nuisance and control the growth of vegetation to minimize potential fuel sources.

(C) The operator shall maintain a working telephone at each Waste Grease Facility.

(D) All Waste Grease Facilities shall control public access, prevent unauthorized access, provide for site security both during and after hours, and prevent illegal dumping or theft of waste grease.

(E) Prominent signs in English and any other language predominant in the area surrounding the facility shall be posted in public view at the entrance to each Waste Grease Facility with the name of the facility, the hours the facility is open for public use, a listing of the wastes accepted at the facility, and a phone number for a 24-hour emergency contact.

(F) **Contingency Plan**: All Waste Grease Facilities shall develop and maintain a contingency plan to be implemented when there is any planned or unplanned release of waste grease.

(1) The contingency plan must contain provisions for assessing the full nature and extent of release to delineate the impact to soil, groundwater or surface water, for remedying such impact, and for returning the waste grease facility to compliance. If a waste grease facility has an approved Spill Prevention Control and Countermeasures (SPCC) Plan, then the Department will accept a modified SPCC Plan that also incorporates the additional requirements as specified in these Solid Waste Regulations. If the facility does not have an approved SPCC Plan, then the Contingency Plan must include all of the provisions identified in this Section 18 of the Solid Waste Regulations.

(2) The owner or operator shall notify the Department and the local governing authority within twenty-four (24) hours of any identified release from a waste grease facility or ancillary equipment or any incident requiring implementation of the Contingency Plan. Within two (2) weeks of the incident, the owner or operator shall provide written notification to the Department outlining actions taken.

(3) Within forty-five (45) calendar days of any identified release from a waste grease facility or ancillary equipment or any incident requiring implementation of the Contingency Plan, the owner or operator shall submit a detailed, written assessment of the impact of the release, repair completion and verification, and the need for additional monitoring and proposed corrective action to the Department and local governing authority. Repairs affecting an engineered feature at the facility must be certified by a registered professional engineer (P.E.), in accordance with these Regulations.

(G) Waste Grease Facilities shall arrange for the commercial transport of waste grease only with a waste grease transporter who is currently registered pursuant to section 18.3.2 of these Regulations

(H) Waste Grease Facilities that process waste grease must annually process 100% of the three-year rolling average annual amount, in gallons, of waste grease that the Waste Grease Facility accepted during the previous three years.

(I) Waste Grease Facilities that convert waste grease into an end product must annually convert 100% of the three-year rolling average annual amount, in gallons, of waste grease that the Waste Grease Facility accepted during the previous three years.

(J) Waste Grease Facilities that do not process waste grease or do not convert waste grease into an end product must either comply with Section 7 of these Regulations or obtain a Certificate of Designation, as appropriate.

18.4.6 CLOSURE OF WASTE GREASE FACILITIES

(A) All Waste Grease Facilities shall be closed and maintained in accordance with Sections 2.5, 2.6, and 18.4 of these Regulations.

(B) **Closure Plan Requirements for Waste Grease Facilities.**

A closure plan shall be prepared as part of an Engineering Design and Operations Plan and shall describe the steps necessary to close the Waste Grease Facility at any point during its active life and at the end of the facility's active life. The facility shall remove all solid waste and residual contamination to meet unrestricted use concentrations. The closure plan, at a minimum, shall include provisions for removal of all solid waste at the site, including:

(1) Proposed plans and procedures for sampling and testing soil based on visual identification of staining or other indications of residual contamination;

(2) Provisions for sampling and analyses of soil for potential hazardous characteristics and provisions for final disposal. Soils will need to meet unrestricted use concentrations or background levels whichever is greater; and

(3) A schedule for completing all activities necessary to satisfy the closure criteria of this section.

(C) At least sixty (60) days in advance of the proposed closure date, the owner or operator must notify the Department and the local governing authority and place signs of suitable size at the entrance to the site and facility.

(D) The owner or operator of the facility must complete closure activities of the facility in accordance with the closure plan and within one hundred eighty (180) calendar days following the final receipt of waste grease. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will take longer than one hundred eighty (180) calendar days and the owner/operator has taken and will continue to take all steps necessary to prevent threats to human health and the environment.

(E) Owners or operators of all Waste Grease Facilities shall submit a Closure Certification Report to the Department within sixty calendar days of completion of closure activities. The Closure Certification Report shall document that all the requirements and conditions of the closure plan have been achieved, including any analytical results, needed to support the unrestricted use condition of the facility. The report must be signed and sealed by Colorado registered professional engineer and is subject to review and approval by the Department.

18.4.7 FINANCIAL ASSURANCE

All Waste Grease Facilities must acquire and maintain financial assurance for any required reclamation and for closure of the Facility in accordance with Section 4 of these Regulations.

18.4.8 ANNUAL REPORT

All Waste Grease Facilities must submit an annual report to the Department on the Waste Grease Facility Annual Report Form (Form WG-4). This form may be obtained by contacting the Department or is available at the Department's website.

(A) The report shall account for the amount of waste grease collected, stored, processed, and/or disposed of by the facility during the previous calendar year (beginning January 1 and ending December 31). Waste grease quantities shall be reported exclusively in gallons.

(B) The annual report must be delivered to the Department, by February 1 of each year and must include the following:

(1) The number of loads and amount of waste grease the facility collected, stored, processed, and/or disposed of for the applicable reporting period;

(2) The number of loads and amount of waste grease the facility shipped off-site for the applicable reporting period.

(3) Documentation that the financial assurance is paid and current.

18.4.9 ANNUAL REGISTRATION FEE

A Waste Grease Facility shall pay an annual registration fee pursuant to Section 1.7.5 of these Regulations.

18.5 - STANDARDS FOR PERSONAL USE OF WASTE GREASE OTHER THAN FOR USE AS BIOFUEL

18.5.1 GENERAL

This Section 18.5 applies to a person collecting or transporting waste grease for personal use other than for use as biofuel pursuant to Sections 30-20-113, C.R.S. or 30-20-123, C.R.S., except as exempted in Section 18.1.6 of these Regulations.

18.5.2 PERSONAL USE OF WASTE GREASE OTHER THAN FOR USE AS BIOFUEL REGISTRATON REQUIREMENTS

(A) No person shall collect or transport waste grease for personal use, other than for use as biofuel, without having received Waste Grease Certificate of Registration from the Department.

(B) An application for a Waste Grease Certificate of Registration as a Personal User of Waste Grease Other than For Use as Biofuel shall be submitted on Form WG-1, available by contacting the Department or at the Department's website. The application shall be delivered to the Department and shall include, at a minimum, the following information:

(1) The name of the Personal User of Waste Grease Other than For Use as Biofuel;

(2) The principal address of the Personal User of Waste Grease Other than For Use as Biofuel;

(3) A principal telephone number(s);

(4) The original signature and date of signature of the Personal User of Waste Grease Other than For Use as Biofuel;

(5) A vehicle description sheet which lists each vehicle the Personal User of Waste Grease Other than For Use as Biofuel will use to transport waste grease, and includes the following information for each vehicle: the license plate number, the state in which the vehicle is registered, the Vehicle Identification Number ("VIN"), the make/model and year, and the registered owner; and

(6) Evidence that an annual fee for each Personal User of Waste Grease Other than For Use as Biofuel has been posted in accordance with Section 18.5.4 of these Regulations.

(C) The Department shall issue a Waste Grease Certificate of Registration to a person if the person has submitted an application to the Department containing all information required in Section 18.5.2 (B) above.

(D) The Waste Grease Certificate of Registration for a Personal User of Waste Grease Other than For Use as Biofuel shall be valid from the date of issuance to July 15 of the following year.

(E) A Personal User of Waste Grease Other than For Use as Biofuel is not authorized to accept, collect, store, process, or dispose of waste grease after the July 15 expiration date unless the Personal User of Waste Grease Other than Use as Biofuel has submitted a complete application to renew the Waste Grease Certificate of Registration as a Personal User of Waste Grease Other than Use as Biofuel from the Department.

(F) A Personal User of Waste Grease Other than For Use as Biofuel who continues accepting, collecting, storing, processing, or disposing of waste grease shall submit an application for renewal no later than June 1 of each year.

(G) A legible copy of the Waste Grease Certificate of Registration shall be maintained by the Personal User of Waste Grease Other than For Use as Biofuel and made available for inspection.

(H) A Waste Grease Certificate of Registration is not transferable by the Personal User of Waste Grease Other than For Use as Biofuel to whom it was issued to any other person or entity.

(I) The Department may revoke a Personal User of Waste Grease Other than For Use as Biofuel's Certificate of Registration for failure to comply with the Act and the Regulations.

18.5.3 STANDARDS FOR PERSONAL USE OF WASTE GREASE OTHER THAN FOR USE AS BIOFUEL

All Personal Users of Waste Grease Other than For Use as Biofuel shall not barter, trade, or sell any portion of the waste grease to any person or take any waste grease from any container that is owned by a registrant unless written permission has been granted by the registrant.

(A) All Personal Users of Waste Grease Other than For Use as Biofuel shall not transport more than 55 gallons of waste grease at a time.

(B) All Personal Users of Waste Grease Other than For Use as Biofuel shall not store more than 165 gallons of waste grease at a time, which includes the quantity of waste grease being transported.

18.5.4 ANNUAL FEE

A Personal User of Waste Grease Other than For Use as Biofuel shall pay an annual registration fee pursuant to Section 1.7.5 of these Regulations.

18.6 STANDARDS FOR PERSONAL USE OF WASTE GREASE AS BIOFUEL

18.6.1 GENERAL

This Section 18.6 applies to a person collecting or transporting waste grease for personal use of the waste grease as biofuel pursuant to Sections 30-20-113, C.R.S. or 30-20-123, C.R.S., except as exempted in Section 18.1.6 of these Regulations.

18.6.2 STANDARDS FOR PERSONAL USE OF WASTE GREASE AS BIOFUEL

A personal user of waste grease as biofuel shall not barter, trade, or sell any portion of the waste grease to any other person or take any waste grease from any container that is owned by a registrant unless written permission has been granted by the registrant.

APPENDIX A FINANCIAL ASSURANCE INSTRUMENT LANGUAGE

WORDING OF THE INSTRUMENTS

I. (A) Trust Agreement

A trust agreement for a trust fund, in this section, must be worded as follows, except that instruction in brackets are to be replaced with the relevant information and the brackets deleted:

Trust Agreement

Trust Agreement, the "Agreement", entered into as of [date] by and between [*name of the owner or operator*], a [*name of state*][insert *"corporation", "partnership", "association", or "proprietorship"*], the "Grantor", and [*name of corporate trustee*], [insert *"incorporated in the State of Colorado"* or *"a national bank"*], the "Trustee."

Whereas, the Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division ("the department"), a regulatory agency of the State of Colorado, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a solid waste disposal site and facility shall provide assurance that funds will be available when needed for closure post closure and corrective action care of the facility,

Whereas, the Grantor has elected to establish a trust fund to provide all or a part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee,

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions as used in this Agreement:

(A) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assignors of the Grantor.

(B) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of facilities and cost estimates This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the name, address, and the current closure and/or post closure cost estimates, and/or corrective action, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund", for the benefit of the department. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement.

The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the department.

Section 4. Payment for closure, post-closure and corrective action care

The Trustee shall make payments from the Fund as the department shall direct, in writing, to provide for the payment of the costs of closure, and/or corrective action, and/or post closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the department from the Fund for closure, post closure and corrective action expenditures in such amount as the department shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the department specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payment comprising the Fund Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee management The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the Fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(A) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80A 2.(A), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

(B) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

(C) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

(D) The investment objectives of the Trust are primarily preservation of capital and access to liquidity, and secondarily investment return on capital investment. Investments in the Trust may include fixed income mutual funds with average durations of less than five years; United States Treasury bills, notes and bonds with maturities less than ten years; United State agency bonds; money market mutual funds invested solely in United States Treasury or Agency bonds; pre-refunded municipal bonds backed by United State Treasuries or Agencies; bank certificates of deposit and money market accounts up to Federal Deposit Insurance Corporation (FDIC) insurance limits; commercial paper bonds rated “A2P2” or better, corporate bonds rated “AA” or better by Standard and Poor’s Financial Services, or any combination of these investments. If individual bonds are used, a minimum of 10 bonds shall be used with roughly equal spacing of maturities and with the intent to hold such bonds to maturity.

Section 7. Commingling and investment The Trustee is expressly authorized in its discretion:

(A) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein.

Section 8. Express powers of Trustee Without in any way limiting the powers and discretions conferred upon the Trustee by the other provision of this Agreement or by law, the Trustee is expressly authorized and empowered:

(A) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(B) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(C) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(D) To deposit any cash in the Fund in interest bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(E) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and expenses All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual valuation The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the department shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11 Advice of counsel The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee compensation The Trusteee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes the administration of the Trust in a writing sent to the Grantor, the department, and the present Trustee by certified mail, or other trackable delivery service, 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section 13 shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the department to the Trustee shall be in writing, signed by the director or his designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the department, except as provided for herein.

Section 15. Notice of nonpayment The Trustee shall notify the Grantor and the department, by certified mail, or other trackable delivery service, within 10 days following the expiration of the 30 days period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the department, or by the Trustee and the department if the Grantor ceases to exist.

Section 17. Irrevocability and termination Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee and the department, or by the Trustee and the department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and indemnification The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of law This Agreement shall be administered, construed, and enforced according to the laws of the State of Colorado.

Section 20. Interpretation As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In witness whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in these regulations were constituted on the date first above written.

The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in these regulations.

State of _____ [County of_____]

On this [*date*], before me personally came [*owner or operator*] to me known, who, being by me duly sworn, did depose and say that she/he resides at [*address*], that she/he is [*title*] of [*corporation*], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that she/he signed her/his name thereto by like order.

[*Signature of notary public*]

Exhibit A

The following have been designated to give instruction to the Trustee:

[Name and title of designated person] _____

[Signature] _____

[Name and title of designated person] _____

[Signature] _____

Schedule A

Facility name: _____

Facility address: _____

_____

Facility phone number: _____

Facility email address: _____

Current closure cost estimate: _____

Current post-closure cost estimate: _____

Current corrective action cost estimate (if applicable): _____

Schedule B

Financial Institution Information

Name and address of financial institution where Trust is located:

Name: _____

Address: _____

_____

Contact/Representative name: _____

Contact phone number: _____

Contact email: _____

Account Information

Trust account number: _____

Initial funding amount: _____

II. Irrevocable Standby Letter of Credit.

A letter of credit, specified in these regulations, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

Director
Colorado Department of Public Health and Environment
Hazardous Materials and Waste Management Division
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Dear Sir or Madam:

We hereby establish our irrevocable standby letter of credit no._____in your favor, at the request and for the account of [*owner's or operator's name and address*] up to the aggregate amount of [*in words*] U.S. Dollars $_____, available upon presentation of:

(1) Your sight draft bearing reference to this letter of credit no._____, and

(2) Your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Colorado Solid Wastes Disposal Sites and Facilities Act as amended."

This letter of credit is effective as of [*date*] and shall expire on [*date at least 1 year later*], but such expiration date shall be automatically extended for a period of [*at least 1 year*] on [*date*] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail, or other trackable delivery service, that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft, for 120 days after the date of receipt by both you and [*owner's or operator's name*], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this letter of credit, we shall duly honor such draft upon presentation to us, and we shall deposit the specified amount of the draft directly into the mechanism established by the State of Colorado to directly receive monies.

We certify that the wording of this letter of credit is identical to the wording specified as such regulations were constituted on the date shown immediately below.

[*Signature(s) and title(s) of official(s) of issuing institution*]

Signature: _____

Printed: _____

Title: _____

Date: _____

This letter of credit is subject to [*insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code"*].

III. Surety Bond

A surety bond guaranteeing payment, as specified in these regulations, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Surety Bond

Date bond executed:
_____
Effective date:
Principal:[*legal name and business address of owner or operator*]_____
_____
_____
Type of organization: [*insert "individual", "joint venture", "partnership", or "corporation"*]_____

State of incorporation:
_____
Surety(ies):[*name(s) and business address(es)*]_____
_____
_____

Name, address, and closure and/or post-closure, corrective action amount(s) for each facility guaranteed by this bond: [*Indicate closure and/or post-closure and/or corrective action amount separately*]_____
_____
_____

Total penal sum of bond:
$_____
Surety's bond number:
_____

Know all persons by these presents, that we, the principal and surety(ies) hereto are firmly bound to the Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (the "department") in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the surety(ies) are corporations acting as co sureties, we, the sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or action against any or all of us, and for all other purposes each surety binds itself, jointly and severally with the principal, for the payment of such sum only as is set forth opposite the name of such surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said principal is required, under the Colorado Solid Wastes Disposal Sites and Facilities Act, to have a certificate of designation in order to own or operate each solid waste management facility identified above, and

Whereas said principal is required to provide financial assurance for closure, or closure and post closure care, as a condition of the certificate of designation, and

Whereas said principal is required to provide financial assurance for any corrective action required at solid waste disposal sites and facilities.

Now, therefore, the conditions of the obligation are such that if the principal shall faithfully, before the beginning of final closure of each facility identified above, provide funding directly to the department in the amount(s) identified above for the facility,

Or, if the principal shall fund in such amount(s) within 15 days after an order to begin closure is issued by the department or a U.S. District court or other court of competent jurisdiction,

Or, if the principal shall provide alternate financial assurance, as specified in these regulations and obtain the department's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the principal and the department from the surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The surety(ies) shall become liable on this bond obligation only when the principal has failed to fulfill the conditions described above. Upon notification by the department that the principal has failed to perform as guaranteed by this bond, the surety(ies) shall place funds in the amount guaranteed for the facility(ies) as directed by the department.

The liability of the surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the surety(ies) hereunder exceed the amount of said penal sum.

The surety(ies) may cancel the bond by sending notice of cancellation by certified mail, or other trackable delivery service, to the principal and to the department, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the principal and the department, as evidenced by the return receipts.

The principal may terminate this bond by sending written notice to the surety(ies), provided, however, that no such notice shall become effective until the surety(ies) receive(s) written authorization for termination of the bond by the department.

[The following paragraph is an optional rider that may be included but is not required:]

The principal and surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure, post closure and/or corrective action amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the department.

In witness whereof, the principal and surety(ies) have executed this surety bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the principal and surety(ies) and that the wording of this surety bond is identical to the wording specified in the applicable regulations were constituted on the date this bond was executed.

Principal _____

[*Signature(s)*] _____

[*Name(s) and Titles*] _____

_____

[*Corporate seal*]

Corporate Surety(ies) _____

[*Name and address*]_____

State of incorporation:_____

Liability limit:$_____

[*Signature(s)*]_____

[*Name(s) and title(s)*]_____

[*Corporate seal*]

[*For every co surety, provide signature(s), Corporate seal, and other information in the same manner as* for *surety above*.]

Bond premium: $

IV. Performance Bond

A surety bond guaranteeing performance of closure and/or post closure care, or corrective action as specified, must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

Performance Bond

Date bond executed:_____

Effective date:_____

Principal:[*legal name and business address of owner or operator*]_____

_____

_____

Type of organization: [*insert "individual", "joint venture", "Partnership", or "corporation"*]_____

State of incorporation:

_____

Surety(ies):[*Name(s) and business address(es)*]_____

_____

_____

Name, address, and closure and/or post closure corrective action amount(s) for each facility guaranteed by this bond (indicate closure and post closure amounts separately]:

Total penal sum of bond: $ _____

Surety's bond number: _____

Know all persons by these presents, that we, the principal and surety(ies) hereto are firmly bound to the Colorado Department of Public Health and Environment (the "department") , in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators successors, and assigns jointly and severally; provide that, where the surety(ies) are corporations acting as co sureties, we, the sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each surety binds itself, jointly and severally with the principal, for the payment of such sum only as is set forth opposite the name of such surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said principal is required, under the Colorado Solid Wastes Disposal Sites and Facilities Act as amended, to have a certificate of designation in order to own or operate each solid waste disposal site and facility identified above; and

Whereas said principal is required to provide financial assurance for closure, or closure and post closure care, as a condition of the certificate of designation; and

Whereas said principal is required to provide financial assurance for any corrective action required at Solid Waste Disposal Sites and Facilities.

Now, therefore, the conditions of this obligation are such that if the principal shall faithfully perform closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the certificate of designation as such plan and certificate of designation may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

And, if the principal shall faithfully perform post closure care of each facility for which this bond guarantees post closure care, in accordance with the post closure plan and other requirements of the certificate of designation, as such plan and certificate of designation may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

Or, if the principal shall provide alternate financial assurance as specified in these regulations, and obtain the department's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the principal and the department from the surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The surety(ies) shall become liable on this bond obligation only when the principal has failed to fulfill the conditions described above.

Upon notification by the department that the principal has been found in violation of the closure requirements of these regulations, for a facility for which this bond guarantees performances of closure, the surety(ies) shall either perform closure in accordance with the closure plan and other certificate of designation requirements or deposit the closure amount guaranteed for the facility as directed by the department.

Upon notification by the department that the principal has failed to provide alternate financial assurance as specified in these regulations, and obtain written approval of such assurance from the department during the 90 days following receipt by both the principal and the department of a notice of cancellation of the bond, the surety(ies) shall deposit funds in the amount guaranteed for the facility(ies) as directed by the department.

The surety(ies) hereby waive(s) notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the surety(ies) hereunder exceed the amount of said penal sum.

The surety(ies) may cancel the bond by sending notice of cancellation by certified mail, or other trackable delivery service, to the owner or operator and to the department provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the principal and the department, as evidenced by the return receipts.

The principal may terminate this bond by sending written notice to the surety(ies), provided, however, that no such notice shall become effective until the surety(ies) receive(s) written authorization for termination of the bond by the department.

[*The following paragraph is an optional rider that may be included but is not required.*]

Principal and surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post closure and corrective action amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the department.

In witness whereof, the principal and surety(ies) have executed this performance bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the principal and surety(ies) and that the wording of this surety bond is identical to the wording specified in the applicable regulations.

Principal _____

[*Signature(s)*] _____
[*Name(s) and Title(s)*] _____

[*Corporate seal*]
Corporate Surety(ies)
[*Name and address*]

State of incorporation:
Liability limit: $
[Signature(s)]
[*Name(s) and title(s)*]

[*Corporate seal*]

[*For every co surety, provide signature(s), Corporate seal, and other information in the same manner as* for *surety above*.]

Bond premium: $

V. Insurance

(1) The standard insurance industry certificate of insurance form (ACORD form), as prescribed by the Colorado Insurance Commission, shall be used to evidence closure and/or post closure care and/or corrective action coverage. The following information is to be included in the certificate of insurance:

(A) Name, address, email and telephone number of agency; and the underwriter

(B) Name of facility being covered (if list is too long additional pages may be attached).

(C) Indication of type of coverage (closure, post-closure and/or corrective action).

(D) Amount of coverage (closure, post-closure and/or corrective action).

(E) A statement of certification, in the comment section, worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

"This certificate certifies that the policy to which this certificate applies, provides [insert and/or closure and/or post closure care or corrective action coverage] in connection with the insured's obligation to demonstrate financial responsibility under Section 4.6.5 of the regulations pertaining to Solid Waste Disposal Sites and Facilities 6 CCR 1007-2, as amended.

(F) Authorized company representatives' signature

(2) Cancellation of this policy, whether by the insurer or the insured, will be effective only upon written notice and only after the expiration of sixty (60) days after a written notice of cancellation is received by the department.

VI. Certificate of Deposit

COLLATERAL ASSIGNMENT OF CERTIFICATE OF DEPOSIT

Instructions: The Colorado Department of Public Health and Environment requires an original signed copy with Italic text replaced.

Bank and Assignor may also require original signed copies.

(Note: No individual certificate of deposit or the total of all deposits of the assignor at any individual savings institution should exceed $250,000 or the maximum insurable amount by F.D.I.C).

PART I

(To: be completed by Assignor)

The undersigned assignor (the "Assignor"), as responsible operator or owner for (*Name and Address of Facility*) ("the Facility"), does hereby assign, transfer to, and pledge to the Director of the Hazardous Materials and Waste Management Division of the Colorado Department of Public Health and Environment ("the department"), right, title, and interest in and to the Certificate of Deposit issued by or carried with_____, and its successors or assigns, with an office located at (*Address and Telephone Number of Bank or Savings Institution*) and identified as Certificate of Deposit #_____ ("CD") including its principal amount and any interest that will accrue or already has accrued on the CD ("Assignment"). This Assignment is binding on Assignor, its/his/her/their heirs, devises, personal representatives, successors, and assigns.

PURPOSE

This Assignment is made as, and shall constitute, collateral security for closure, post-closure, and corrective action costs associated with the Facility in accordance with section 30-20-104.5, C.R.S. and 6 CCR 1007-2, § 4.0. Pursuant to 6 CCR 1007-2, § 4.5, the aforesaid costs shall be updated every five (5) years, adjusted annually to account for inflation or deflation by using the implicit price deflator for the gross domestic product or its successor as published by the U.S. Department of Commerce ("Cost Estimate"), or as requirements change at the Facility.

The principal amount of the CD shall be equal or greater to the current Cost Estimate. If the Cost Estimate increases to an amount greater than the principal amount of the CD, the owner or operator, during the seven (7) day grace period after the maturity date of the CD ("Grace Period'), shall contribute additional funding to the CD so that the principal amount of the CD is at least equal to the Cost Estimate. In the alternative, the Facility may implement another financial assurance mechanism as set forth in 6 CCR 1007-2, § 4.6.1(D) to satisfy the disparity between the principal amount of the CD and the Cost Estimate. The owner and operator shall provide confirmation that the principal amount of the CD or the alternative financial mechanism covers the Cost Estimate to the department within ten (10) days of the aforesaid contribution or establishment of other financial assurance mechanism.

During every Grace Period, the owner or operator of the Facility shall increase the principal amount of the CD to account for the inflationary adjustment as determined pursuant to 6 CCR 1007-2, § 4.5 and shall provide written notice of such increase to the department within ten (10) days thereafter.

If the Cost Estimate decreases during the operating life of the Facility or during post-closure, the principal amount of the CD may be reduced to the amount of the Cost Estimate following the department's consultation with the local governing authority and written approval by the department.

Upon request by the department, the Assignor shall provide within ten (10) days to the department a complete copy of the most recent account statement of the CD, which, at a minimum, shows its principal amount and accrued interest. The Assignor also irrevocably consents and authorizes _____ to release any information regarding the CD and a recent account statement to the department if the department should contact this bank directly.

DURATION OF ASSIGNMENT

This Assignment shall be for a period from the date hereof until the department declares this Assignment to be terminated by written notice to _____ and Assignor. Consequently, the CD shall be automatically renewed for successive new terms identical to the CD's original term unless and until _____ receives written notice of termination of the Assignment.

Assignor hereby agrees to not cancel or otherwise act on the CD without the department's written approval and that Assignor is liable for any fees or penalties associated with any payment of the CD to the department.

CDPHE'S RIGHT TO DRAW UPON CERTIFICATE OF DEPOSIT

Following a determination by the department that the owner or operator has failed to perform final closure or post-closure or corrective action in accordance with the closure or post-closure or corrective action plan and other certificate of designation requirements, if applicable, the department may draw on the CD without further notice to or the consent of Assignor.

The undersigned hereby constitutes and appoints the department as Power of Attorney of the undersigned to demand, collect, and receive all amounts that may become due under the terms of this Assignment, and to endorse the CD for payment or negotiation and to endorse any commercial paper given in payment of the CD.

PRESENTATION OF CERTIFICATE OF DEPOSIT

The undersigned represents and warrants that a receipt for the CD is contemporaneously being delivered to the department with the execution of this Assignment; that the CD is to remain assigned to the department until authorized for release pursuant to 6 CCR 1007-2, § 4.4.6.13; that the CD is genuine and is in all respects what it purports to be; that the undersigned is the owner thereof free and clear of all liens and encumbrances of any nature whatsoever; and that the undersigned has full power, right, and authority to execute and deliver this Assignment.

NOTICES

All notices required under this Assignment shall be sent to:

Financial Assurance Program Manager
Colorado Department of Public Health and Environment
Mail Code: HMWMD-SWP-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

The undersigned further represents and warrants that any assignments of this CD made while the CD is pledged to the department shall be subordinate to this Assignment.

ASSIGNOR: (Name of the Owner or Operator of the Facility)

_____ _____
Name (Print) Title

_____ _____
Signature Date

PART II

(To be completed by bank or savings institution)

SIGNATURE GUARANTEE AND UNDERTAKING BY THE FINANCIAL INSTITUTION

The signature of the Assignor appearing on PART I of this document was made in the presence of the undersigned officer of _____ and such signature is herewith guaranteed by _____.

This institution is an association/bank doing business in this state whose accounts are insured by the Federal Deposit Insurance Corporation. The above Assignment carries with it the right in and to the insurance of this account provided by the Federal Deposit Insurance Corporation.

_____ hereby certifies that the CD identified on page one (1) has a principal amount of $_____; that the signature of the Assignor above is comparable to signatures on file with _____; and that _____ has no knowledge of any other lien, encumbrance, right, hold, claim to, or obligation on the assigned CD.

The CD is issued for a period of ____ year(s), beginning on _____, _____ and shall be automatically renewable for a like term and at Bank's standard interest rate in effect as of the applicable renewal date for a CD of such term and principal amount, with interest automatically rolling into the principal on each maturity date. In accordance with 6 CCR 1007-2, § 4.6.10(H), _____ shall provide a thirty (30) day written notice of maturity of the CD to the Assignor and will make a good faith effort to provide same notice to the department. _____ may elect at any time not to renew the CD as of a particular maturity date, subject to the requirement that, at least sixty (60) days before the applicable maturity date,

_____ shall notify the Assignor and the department by certified mail or other trackable delivery service, of such decision. Such notice shall be effective upon receipt. Upon maturity of the CD following _____'s notice of non-renewal, _____ shall disburse all funds as directed by the department.

_____ understands and agrees that the procedures governing the forfeiture of this CD are specified in 6 CCR 1007-2, § 4.6.10(J), and that, upon _____ 's receipt of written notice from the department that the Facility has not complied with its requisite final closure or post-closure or corrective action plan, _____ will forward to the department within ten (10) days the principal amount of the CD plus any accrued interest, less any early withdrawal penalty, without further notice to the Assignor.

On this date, the maximum penalty for early withdrawal of this Certificate of Deposit is:

$_____. Any penalty shall be deducted from interest accrued, and if to the extent that such amount is insufficient, shall be deducted from the principal of the CD.

_____ herein states that so long as this agreement remains in effect, it has no other interests in this CD other than its sole responsibility to act as the agent for the purpose of holding the CD for the department's exclusive use until otherwise approved by the department in writing, and agrees not to act on the CD except as otherwise provided in this agreement or pursuant to written approval by the department. _____ agrees that any claim or lien, which may result from this Assignment, or which it may acquire in the future against the Assignor, will be subordinate and junior to the department's interest in the CD.

_____ agrees that except as otherwise provided in this agreement, no modification will be made to the terms and conditions of the CD which would affect the interest of the department under this assignment, without first notifying and obtaining written approval from the department. Written notice of any proposed modification or change in the terms or conditions of this CD shall be provided to the Financial Assurance Program Manager at the address listed in PART I above.

_____ understands that this Certificate of Deposit is being pledged to the department by the Assignor as financial assurance under 6 CCR 1007-2, § 4.0.
_____ has retained a copy of this Assignment and has properly documented this Assignment in the appropriate records of this institution.

_____
Name of Financial Institution

_____ _____
Name Title

_____ _____
Signature Date

Accepted By:
Colorado Department of Public Health and Environment

_____ _____
Signature Date
Division Director
Hazardous Materials and Waste Management Division

APPENDIX B GROUND WATER MONITORING

Appendix B uses 40 CFR Part 258 (Solid Waste Disposal Facility Criteria, October 9, 1991) as a reference document. Part 258 reference numbers, contained herein, are intentionally used for cross reference to the federal document.

B1 Applicability [40 CFR 258.50]

Ground water monitoring requirements in the Appendix B may be waived by the Department after consultation with the local governing body having jurisdiction if the owner or operator demonstrates that there is no migration potential for hazardous substances, pollutants and contaminants from that solid waste disposal site and facility to ground water during the life of the facility and the post-closure care period. If ground water monitoring requirements are waived, the operator must continue to demonstrate that no potential exists for migration of hazardous substances, pollutants and contaminants from the facility. Such demonstration shall be evaluated by the operator and submitted to the Department and the local governing body having jurisdiction every five years. This demonstration must be certified by a qualified ground water scientist and approved by the Department, and be based upon:

(1) Site-specific field collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport, and

(2) Contaminant fate and transport predictions that maximize contaminant migration and consider impacts on human health and environment, and

(3) Distance to drinking water intakes.

B2 Ground water monitoring systems [40 CFR 258.51]

(A) A ground water monitoring system must consist of a sufficient number of monitoring wells installed at appropriate locations and depths which will yield ground water samples that:

(1) Represent the quality of background ground water that has not been affected by leakage from a unit. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management unit where:

(a) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; or

(b) Sampling at other wells will provide an indication of background ground water quality that is as representative or more representative than that provided by the hydraulically upgradient wells; and

(2) Represent the quality of ground-water at the relevant point of compliance specified in Section 2.1.15. The downgradient monitoring system must be installed at the relevant point of compliance specified by the Department under 40 CFR 258.40(D) that is capable of detecting ground water contamination. When physical obstacles preclude installation of ground water monitoring wells at the relevant point of compliance at existing units, the down-gradient monitoring system may be installed at the closest practicable distance hydraulically down-gradient from the relevant point of compliance specified by the Department under 40 CFR 258.40(D) that is capable of detecting ground water contamination.

(B) Monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of ground water samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the ground water. Ground water monitoring wells and points are designed and installed in accordance with applicable rules and regulations pursuant to the "Water Well and Pump Installation Contractor's Act", Title 37, Article 91, Part 1, CRS, as amended

(1) The owner or operator must document the design, installation, development, and decommission of any monitoring wells, piezometers and other measurements, sampling, and analytical devices. Documentation shall be placed in the operating record and shall be submitted to the Department and the local governing body having jurisdiction.

(2) The monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be operated and maintained so that they perform to design specifications throughout the life of the monitoring program.

(C) The number, spacing, and depths of monitoring systems shall be:

(1) Determined based upon site-specific technical information that must include thorough characterization of the:

(a) Saturated thickness, ground water flow rate, ground water flow direction including seasonal and temporal fluctuations in ground-water flow; and

(b) Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer; including, but not limited to: thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

(2) Certified by a qualified ground water scientist and approved by the Department and the local governing body having jurisdiction. Within 14 days, the owner or operator must place documentation in the operating record and be submitted to the Department and the local governing body having jurisdiction.

(D) Alternative monitoring systems

Alternative monitoring systems may be approved by the Department based on site specific technical information. Alternative monitoring includes the following: vadose zone monitoring, wet/dry monitoring or other alternative monitoring systems that are sufficient to detect changes in the subsurface condition and/or contaminants from the facility at the relevant point of compliance.

B3 Ground water sampling and analysis requirements [40 CFR 258.53]

(A) The ground water monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of ground water quality at the background and downgradient wells installed in compliance with 40 CFR 258.51(A). The owner or operator must notify the Department and the local governing body having jurisdiction that the sampling and analysis program documentation has been placed in the operating record and the program must include procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures;

(4) Chain of custody control; and

(5) Quality assurance and quality control.

(B) The ground water monitoring program must include sampling and analytical methods that are appropriate for ground water sampling and that. accurately measure hazardous constituents and other monitoring parameters in ground water samples. Analytical methods shall be according to Colorado Department of Health guidelines, or an EPA approved method, for constituents listed in Appendix I and Appendix II.

(C) The sampling procedures and frequency must be protective of human health and the environment.

(D) Ground water elevations must be measured in each well immediately prior to purging, each time ground water is sampled. Changes in the rate and directions of ground water flow should be evaluated at a frequency appropriate to site-specific hydrogeologic conditions. Ground water elevations in wells which monitor the same waste management area must be measured within a period of time short enough to avoid temporal variations in ground water flow which could preclude accurate determination of ground water flow rate and direction.

(E) The owner or operator must establish background ground water quality in a hydraulically upgradient or background well(s) for each of the monitoring parameters or constituents required in the particular ground water monitoring program that applies to the solid waste disposal site and facility, as determined under 40 CFR 258.54(A) or 40 CFR 258.55(A). Background ground water quality may be established at wells that are not located hydraulically upgradient from the solid waste disposal site and facility if it meets the requirements of 40 CFR 258.51(A)(1).

(F) The number of samples collected to establish ground water quality data must be consistent with the appropriate statistical procedures determined pursuant to paragraph (G) of this section. The sampling procedures shall be those specified under 40 CFR 258.54(B) for detection monitoring, 40 CFR 258.55 (B) and (D) for assessment monitoring, and 40 CFR 258.56(B) for corrective action.

(G) Following collection of background constituent concentration data, the owner or operator must specify in the operating record one or more of the following statistical methods to be used in evaluating ground water monitoring data for each hazardous constituent. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Any changes in statistical methodology from the specified method(s) shall be reviewed and approved by the Department within two weeks of the request and entered into the operating record. After background data has been collected, a statistical analysis will be specified.

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) A trend analysis approach to evaluate the significance of an apparent change in water quality over time at a given well.

(6) Another statistical test method that meets the performance standards of 40 CFR 258.53(H). The owner or operator must place a justification for this alternative in the operating record and notify the Department of the use of this alternative test. The justification must demonstrate that the alternative method meets the performance standards of 40 CFR 258.53(H).

(H) Any statistical method chosen under 40 CFR 258.53(G) shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate ground water monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed, or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground-water protection standard, the test shall be done at a Type I error level no less than 0.01 For each testing period. If a multiple comparisons procedure is used, the type I experiment wise error rate for each testing period shall be no less than 0.05; However, the type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(3) If a control chart approach is used to evaluate ground water monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(4) If a tolerance interval or a prediction interval is used to evaluate ground water monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (PQL) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(I) The owner or operator must determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular ground water monitoring program that applies to the solid waste disposal site and facility, as determined under 40 CFR 258.54(A) or 40 CFR 258.55(A).

(1) In determining whether a statistically significant increase has occurred, the owner or operator must compare the ground-water quality of each parameter or constituent at each monitoring well designated pursuant to 40 CFR 258.51(A)(2) to the background value of that constituent, according to the statistical procedures and performance standards specified under paragraphs (G) and (H) of this section.

(2) Within 30 days after completing sampling and analysis, the owner or operator must determine whether there has been a statistically significant increase over background at each monitoring well and notify the Department.

B4 Detection monitoring program [40 CFR 258.54]

(A) Detection monitoring is required at solid waste disposal sites and facilities at all ground water monitoring wells defined under 40 CFR 258.51(A)(1) and (A)(2) of this part. At a minimum, a detection monitoring program must include the monitoring for the constituents listed in Appendix IA of this part. A detection monitoring program for solid waste disposal site and facility must also include the monitoring for constituents listed in Appendix IB.

(1) The Department after consultation with the local governing body having jurisdiction may delete any of the Appendix I monitoring parameters for a solid waste disposal site and facility on a site specific basis, if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the facility.

(2) The Department after consultation with the local governing body having jurisdiction may add to the Appendix IA or IB monitoring parameters for a solid waste disposal site and facility on a site specific basis. The additional analytes will be selected using the following minimum criteria:

(a) An “acceptable” analytical method exists. An acceptable method should be validated to demonstrate it is capable of generating reliable data on a routine basis. Additionally, it should be standardized and thus readily available from commercial laboratories.

(b) A calibration standard is commercially available and readily obtainable.

(c) The analyte is chemically stable in the sample matrix with appropriate but not unreasonable collection and preservation techniques.

(d) If there exists a reasonable expectation that the additional analyte will be present due to site specific conditions, or the additional analyte will be a reliable indictor of ground water chemistry and possible precursor to other more hazardous constituents that may be released later from the solid waste disposal site and facility.

(3) In determining the addition or deletion of Appendix IA or IB constituents, the Department shall consider the following factors:

(a) The types, quantities, And concentrations of constituents in wastes managed at the solid waste disposal sites and facilities, and

(b) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the mswlf unit.

(B) To establish background concentrations, a minimum of eight quarterly samples from each well must be collected and analyzed for the Appendix IA & IB constituents, or the list approved in accordance with paragraph (A) of this section. The Department may specify an appropriate monitoring frequency for repeated sampling and analysis for Appendix IA & IB constituents, or the list approved in accordance with paragraph (a) of this section, during the active life and the post-closure care period. The monitoring frequency during the active life (including closure) shall be no less than semi-annual, unless approved by the Department. The alternative frequency shall be based on consideration of the following factors:

(1) Lithology of the saturated and unsaturated zone;

(2) Hydraulic conductivity of the ground water and unsaturated zone;

(3) Ground water flow rates;

(4) Minimum distance between upgradient edge of the solid waste disposal site and facility unit and downgradient monitoring well screen (minimum distance of travel); and

(5) Resource value of the ground water.

(6) For landfills this schedule shall be no less stringent than 40 CFR 258.54(B).

(C) If the owner or operator determines, pursuant to 40 CFR 258.53(G) of this part, that there is a statistically significant increase over background for one or more of the constituents listed in Appendix I a or IB or the list approved in accordance with paragraph (A) of this section, at any monitoring well at the boundary specified under 40 CFR 258.51(A)(2), the owner or operator:

(1) Must place documentation in the facility operating record indicating which constituents have shown statistically significant changes from background levels and forward the documentation to the Department and the local governing body having jurisdiction within 14 days; and

(2) Must establish an assessment monitoring program meeting the requirements of 40 CFR 258.55 of this part within 90 days except as provided for in paragraph (3) below.

(3) May demonstrate that a source other than a SWDSF caused the contamination or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground water quality. A report documenting this demonstration must be certified by a qualified ground water scientist and approved by the Department and the local governing body having jurisdiction and be placed in the operating record. If a successful demonstration is made and documented, the owner or operator may continue detection monitoring as specified in this section. If, after 90 days, a successful demonstration is not made, the owner or operator must initiate an assessment monitoring program as required in 40 CFR 258.55.

B5 Assessment monitoring program [40 CFR 258.55]

(A) Assessment monitoring is required whenever a statistically significant increase over background has been detected for one or more of the constituents listed in the Appendix IA or IB or in the list approved in accordance with 40 CFR 258.54(A)(1) & (a)(2).

(B) Within 90 days of triggering an assessment monitoring program, and annually thereafter, the owner or operator of a sanitary landfill must sample and analyze the ground water for all constituents identified in Appendix II of this part. A minimum of one sample from each potentially affected well must be collected and analyzed during each sampling event. For any constituent detected in the these wells as a result of the complete Appendix II analysis, a minimum of four independent samples, or an alternate sampling schedule approved by the Department, from each well (background and downgradient) must be collected and analyzed to establish background for the constituents. The Department may specify an appropriate subset of wells to be sampled and analyzed for Appendix II constituents during assessment monitoring. The Department may delete any of the Appendix II monitoring parameters for a MSWLF unit if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit.

(C) Solid waste disposal sites and facilities, other than sanitary landfill, must also conduct an assessment monitoring program. The parameters of the assessment monitoring program shall be determined by the owner or operator and the Department based on consideration of:

(1) The types, quantities and concentrations of constituents in wastes managed at the solid waste disposal site and facility, and

(2) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the solid waste disposal site and facility.

(D) The Department may specify an appropriate alternate frequency for repeated sampling and analysis for the full set of Appendix II constituents or the list approved in accordance with 40 CFR 258.55(C), during the active life (including closure) and post-closure care of the unit considering the following factors:

(1) Lithology of the aquifer, monitored and unsaturated zone;

(2) Hydraulic conductivity of the aquifer, monitored and unsaturated zone;

(3) Ground water flow rates;

(4) Minimum distance between upgradient edge of the MSWLF unit and downgradient monitoring well screen (minimum distance of travel);

(5) Resource value of the aquifer and monitored unit; and

(6) Nature (fate and transport) of any constituents detected in response to this section.

(E) After obtaining the results from the initial or subsequent sampling events required in 40 CFR 258.55(B), (C) and (D), the owner or operator must:

(1) Within 14 days, place documentation in the operating record identifying the detected Appendix II constituents or the list approved in accordance with 40 CFR 258.55(C), and submit the documentation to the Department and the local governing body having jurisdiction;

(2) Within 90 days, and on a semiannual basis thereafter:

(a) Resample all wells specified by 40 CFR 258.51(A);

(b) Conduct analyses for all constituents in Appendix IA & IB or in the alternative list approved in accordance with 40 CFR 258.54(A)(2), and for those constituents in Appendix II or the list approved in accordance with 40 CFR 258.55(C) that are detected in response to 40 CFR 258.55(B), (c) and (d); and

(c) Record their concentrations in the facility operating record and submit them to the Department and the local governing body having jurisdiction.

(3) At least one sample from each well must be collected and analyzed during these sampling events. The Department may specify an alternative monitoring frequency during the active life (including closure) and the post-closure period for the constituents referred above to in this paragraph. The alternative frequency for Appendix IA & IB constituents, or the list approved in accordance with 40 CFR 258.54(A)(2), during the active life (including closure) shall be no less than annual. The alternative frequency shall be based on consideration of the factors specified in 40 CFR 258.55(D);

(F) If the concentrations of all Appendix II constituents are shown to be at or below background values, using the statistical procedures in 40 CFR 258.53(G), for two consecutive sampling events, the owner or operator must document and submit this finding to the Department and the local governing body having jurisdiction, and may, upon approval from the Department and the local governing body having jurisdiction discontinue assessment monitoring.

(G) If one or more Appendix II constituents or the list approved in accordance with 40 CFR 258.55(C) are detected at statistically significant levels above the background concentrations, the owner or operator shall, within 14 days of this finding, place a document in the operating record identifying the Appendix II constituents or the list approved in accordance with 40 CFR 258.55(C) that have exceeded the background concentrations and submit the documentation to the Department and all appropriate local government officials. The owner or operator shall also:

(1) (a) Characterize the nature and extent of the release by installing additional monitoring wells as necessary;

(b) Install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with 40 CFR 258.55(D)(2);

(c) Notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site if indicated by sampling of wells in accordance with 40 CFR 258.55(G)(1); and

(d) Initiate an assessment of corrective measures as required by 40 CFR 255.56 Of this part within 90 days; or

(2) Demonstrate that a source other than a mswlf unit caused the contamination, or that the statically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground water quality. A report documenting this demonstration must be certified by a qualified ground water scientist or approved by the Department and placed in the operating record. If a successful demonstration is made the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to 40 CFR 258.55, and may return to detection monitoring if the Appendix II constituents or the list approved in accordance with 40 CFR 258.55(C) are at or below background as specified in 40 CFR 258.55(E). Until a successful demonstration is made, the owner or operator must comply with 40 CFR 258.55(G) including initiating an assessment of corrective measures in accordance with 40 CFR 258.56.

B6 Assessment of corrective measures [40 CFR 258.56]

(A) Within 90 days of finding that any of the constituents referenced in 40 CFR 258.55 have been detected at a statistically significant level exceeding the background concentrations, the owner or operator must initiate an assessment of corrective measures. Such an assessment must be completed within a reasonable period of time as determined by the Department and governing body having jurisdiction.

(B) The owner or operator must continue to monitor in accordance with the assessment monitoring program as specified in 40 CFR 258.55.

(C) The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described under 40 CFR 258.57, addressing at least the following:

(1) The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

(2) The time required to begin and complete the remedy;

(3) The costs of remedy implementation; and

(4) The institutional requirements such as state or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(s).

(D) The owner or operator shall provide to the Department the results of the corrective measures assessment, prior to the remedy selection. The Department and the local governing body having jurisdiction shall provide a 30 day public notification and public comment period to interested and affected parties prior to the remedy selection.

(E) In the interest of minimizing environmental contamination and promoting effective remediation, owners or operators shall evaluate pursuant to Appendix B, Section B6, Subsection (F) the need for undertaking interim measures prior to the selection of the final remedy.

(1) The owner or operator shall evaluate the need for interim measures within 30 days of the date of determining that there has been a statistically significant increase over background and shall submit the evaluation to the department and the local governing body having jurisdiction.

(2) Within 30 days after the determination is made that interim measures are needed, the owner or operator shall submit documentation to the department and the local governing body having jurisdiction of their intention to implement the interim measure and an implementation schedule.

(3) Within 14 days of receipt of documentation, the department shall notify the owner or operator of any conditions to be imposed and any recommended modifications to be employed during the implementation of the interim measure.

(5) The interim measures, as approved by the department, shall be initiated as soon as possible but no later than 30 days after the receipt of the department's approval.

(6) The owner or operator shall provide periodic progress reports on the implementation of interim measures to the department and the local governing body having jurisdiction and incorporate the interim measures in the results of the corrective measures assessment as required in 40 CFR 258.56(d).

(F) Interim measures should, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to 40 CFR 258.57. The following factors must be considered by an owner or operator in determining whether interim measures are necessary:

(1) Time required to develop and implement a final remedy;

(2) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;

(3) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(4) Further degradation of the ground water that may occur if remedial action is not initiated expeditiously;

(5) Weather conditions that may cause hazardous constituents to migrate or be released;

(6) Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

(7) Other situations that may pose threats to human health and the environment.

B7 Selection of remedy [40 CFR 258.57]

(A) Based on the results of the corrective measures assessment conducted under 40 CFR 258.56, remedies must:

(1) Be protective of human health and the environment;

(2) Attain the ground water protection standard as specified pursuant to 40 CFR 258.55 (G) and (H);

(3) Control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of constituents referenced in 40 CFR 258.55 into the environment that may pose a threat to human health or the environment; and

(4) Comply with standards for management of wastes as specified in 40 CFR 258.58(D).

(B) In selecting a remedy that meets the requirements of 40 CFR 258.57(A), the owner or operator shall consider the following evaluation factors:

(1) Extent and nature of contamination;

(2) Resource value of the ground water including:

(a) Current and potential uses;

(b) Proximity and withdrawal rate of users;

(c) Ground water quantity and quality;

(d) The hydrogeologic characteristic(s) of the saturated zones beneath the facility and surrounding land; and

(e) The cost and availability of alternative water supplies.

(3) The long-term and short-term effectiveness and protectiveness of the potential remedy(s) based on consideration of the following:

(a) The type and degree of long-term management required, including monitoring, operation, and maintenance;

(b) Short-term risks that might be posed to the human health and the environment during implementation of such a remedy, including potential threats associated with excavation, transportation, and redisposal or containment;

(c) Time until the remedy becomes effective;

(d) Potential for exposure of humans and environmental receptors to remaining wastes;

(e) Long-term reliability of the engineering and institutional controls; and

(f) Potential need for refinement of the remedy.

(4) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

(I) The extent to which containment practices will reduce further releases;

(II) The extent to which treatment technologies may be used; and

(III) The practical capabilities of remedial technologies in achieving compliance with ground water protection standards established under 40 CFR 258.57(G) and (H), and other objectives of the remedy.

(5) The ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:

(I) Degree of difficulty associated with constructing the technology;

(II) Expected operational reliability of the technologies;

(III) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(IV) Availability of necessary equipment and specialists;

(V) Available capacity and location of needed treatment, storage, and disposal services;

(VI) Desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives; and

(VII) Ground water removal and treatment costs.

(6) Practicable capability of the owner or operator, including a consideration of the technical and economic capability.

(7) The degree to which community concerns are addressed by a potential remedy(s).

(8) Other relevant factors.

(C) If the owner or operator is unable to meet the requirements of 40 CFR 258.57(A) the Department after consultation with the local governing body having jurisdiction may determine that remediation of a release of constituents referenced in 40 CFR 258.55 is not necessary if the owner or operator demonstrates to the satisfaction of the Department that:

(1) The ground water is additionally contaminated by substances that have originated from a source other than the solid waste disposal site and facility and those substances are present in concentrations such that cleanup of the release from the SWDSF would provide no significant reduction in risk to the human health and the environment; or

(2) The constituent(s) is present in ground water that is not hydraulically connected to the uppermost aquifer or surface water.

(3) Remediation results in unacceptable cross-media impacts.

(4) Obtain certification of a qualified ground water scientist or approval by the Department that compliance with requirements under 40 CFR 258.57(A) cannot be practically achieved with any currently available methods.

(5) A cost-benefit analysis indicates that remediation of the release is unacceptable.

(D) A determination by the Department pursuant to 40 CFR 258.57(C) shall not affect the authority of the Department to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the ground water; to prevent exposure to the ground water; or control exposure of human health and environment to residual contamination.

(E) The owner or operator shall specify as part of the selected remedy, a schedule(s) for initiating and completing remedial activities or source control. Such a schedule must require the initiation of remedial activities or source control within a reasonable period of time taking into consideration the factors set forth in paragraphs 40 CFR 258.57(B) or 40 CFR 258.57(D).

(F) The owner or operator must submit a report to the Department and the local governing body having jurisdiction and place it in the operating record, within 14 days of selecting a remedy(s) or source control measure(s). The report shall describe the selected remedy(s) or source control measure(s) and how it meets the requirements of section 40 CFR 258.57. Within 60 days of the reports receipt, the Department after consultation with the local governing. body having jurisdiction shall provide a determination, in conformance with Section 40 CFR 258.57 of the adequacy of the remedy(s) or source control measure(s).

(G) The owner or operator shall develop ground water protection standards which are required to implement a corrective measure pursuant to 40 CFR 258.57. The ground water protection standards shall not be implemented without approval by the Department. The ground water protection standard for each constituent, referenced in 40 CFR 258.55, that has been detected at a statistically significant level exceeding background shall be based on the following:

(1) Background concentration for the constituent in wells established in accordance with 40 CFR 258.51(A);

(2) Maximum contaminant level (MCL) promulgated under Section 1412 of the safe drinking water act (codified) under 40 CFR Part 141;

(3) Health based levels that satisfy the following criteria:

(a) The level is derived in a manner consistent with guidelines for assessing the health risks of environmental pollutants (51 FR 33992, 34006, 34014, 34028);

(b) The level is based on scientifically valid studies conducted in accordance with the toxic substances control act good laboratory practice standards (40 CFR Part 792) or equivalent;

(c) For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) with the 1 x $10.^{-4}$ To 1 x 10^{-6} range; and

(d) For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this subpart, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(H) The owner or operator, and the Department in consultation with the local governing body having jurisdiction may consider establishing alternate ground water protection standards to 40 CFR 258.57(G), based on consideration of the following:

(1) Multiple contaminants in the ground water;

(2) Exposure threats to sensitive environmental receptors;

(3) Other site-specific exposure or potential exposure to ground water; and

(4) Best demonstrated available technology.

B8 Implementation of corrective measures [40 CFR 258.58]

(A) Based on the schedule established under 40 CFR 258.57(D) for initiation and completion of remedial activities the owner or operator must:

(1) Establish and implement a corrective action ground water monitoring program that, at a minimum:

(a) Meets the requirements of an assessment monitoring program under 258.55;

(b) Indicates the effectiveness of the corrective action remedy; and

(c) Demonstrates compliance with ground water protection standard pursuant to 40 CFR 258.58(E).

(2) Implement the corrective action remedy selected under 40 CFR 258.57;

(B) An owner or operator or the Department in consultation with the local governing body having jurisdiction may determine, based on information developed after implementation of the remedy, source control or other information, that compliance with requirements of 40 CFR 258.57 are not being achieved. In such cases, the owner or operator must implement other methods or techniques in compliance with the requirements of section 40 CFR 258.58(C).

(C) All wastes that are generated during the implementation of the remedy(s) or source control measure(s) required under 40 CFR 258.57, or an interim measure required under 40 CFR 258.58(A)(3), shall be managed in a manner:

(1) That is protective of human health and the environment; and

(2) That complies with applicable Resource Conservation and Recovery Act requirements.

(D) Remedies selected pursuant to 40 CFR 258.57 shall be considered complete when:

(1) The owner or operator complies with the ground water protection standards established under 40 CFR 258.55 (G) and (H) at all points within the plume of contamination that lie beyond the ground water monitoring well system established under 40 CFR 258.51(A).

(2) Compliance with the ground water protection standards established under 40 CFR 258.55 (G) and (H) has been achieved by demonstrating that concentrations of constituents referenced in 40 CFR 258.55 have not exceeded the ground water protection standard(s) for a period of three consecutive years using the statistical procedures and performance standards in 40 CFR 258.53(G) and (H). The Department may specify an alternative length of time during which the owner or operator must demonstrate that concentrations of constituents referenced in 40 CFR 258.55 have not exceeded the ground water protection standard(s) based on the following factors:

(a) Extent and concentration of the constituent(s) released;

(b) Chemical and physical characteristics of the hazardous constituents in the ground water and geologic media;

(c) Accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and

(d) Chemical and physical characteristics of the ground water and geologic media.

(3) All actions required to complete the remedy have been satisfied.

(E) Upon completion of the remedy, the owner or operator and qualified ground water scientist must certify that completion of the remedy is in compliance with 40 CFR 258.58(D). A report shall be submitted to the Department and the local governing body having jurisdiction and placed in the operating record, within 14 days of certification. Within 60 days receipt of the report, the Department after consultation with the local governing body having jurisdiction shall provide a determination that the corrective action has met the requirements of 40 CFR 258.58(D).

(F) Upon completion of the certification process pursuant to 40 CFR 258.58(E), the owner or operator shall be released from the financial assurance requirement for corrective action under Section 1.6.

APPENDIX I FOR DETECTION MONITORING

APPENDIX IA GENERAL GROUND WATER QUALITY INDICATOR PARAMETERS

CATIONS
MAGNESIUM
SODIUM
POTASSIUM
CALCIUM

ANIONS
CARBONATE
BICARBONATE
CHLORIDE
SULFATE
NITRITE
NITRATE

FIELD PARAMETERS
PH
SPECIFIC CONDUCTIVITY
TEMPERATURE
TOTAL ORGANIC CARBON

APPENDIX IB

COMMON NAME	CAS NUMBER
INORGANIC CONSTITUENTS	
(1) ANTIMONY (TOTAL)	
(2) ARSENIC(TOTAL)	
(3) BARIUM(TOTAL)	
(4) BERYLLIUM(TOTAL)	
(5) CADMIUM(TOTAL)	
(6) CHROMIUM	(TOTAL)
(7) COBALT	(TOTAL)
(8) COPPER	(TOTAL)
(9) LEAD	(TOTAL)
(10) NICKEL	(TOTAL)
(11) SELENIUM	(TOTAL)
(12) SILVER	(TOTAL)
(13) THALLIUM	(TOTAL)
(14) VANADIUM	(TOTAL)
(15) ZINC	(TOTAL)
ORGANIC CONSTITUENTS:	
(16) ACETONE	67-64-1
(17) ACRYLONITRILE	107-13-1
(18) BENZENE	71-43-2
(19) BROMOCHLOROMETHANE	74-97-5
(20) BROMODICHLOROMETHANE	75-27-4
(21) BROMOFORM; TRIBROMOMETHANE	75-25-2
(22) CARBON DISULFIDE	75-15-0
(23) CARBON TETRACHLORIDE	56-23-5
(24) CHLOROBENZENE	108-90-7
(25) CHLOROETHANE; ETHYL CHLORIDE	75-00-3
(26) CHLOROFORM; TRICHLOROMETHANE	67-66-3

COMMON NAME	CAS NUMBER
(27) DIBROMOCHLOROMETHANE; CHLORODIBROMOMETHANE	124-48-1
(28) 1,2-DIBROMO-3-CHLOROPROPANE; DBCP	96-12-8
(29) 1,2-DIBROMOETHANE; ETHYLENE DIBROMIDE; EDB	106-93-4
(30) O-DICHLOROBENZENE; 1,2-DICHLOROBENZENE	95-50-1
(31) P-DICHLOROBENZENE; 1,4-DICHLOROBENZENE	106-46-7
(32) TRANS-1,4-DICHLORO-2-BUTENE	110-57-6
(33) 1,1-DICHLOROETHANE; ETHYLIDENE CHLORIDE	75-34-3
(34) 1,2-DICHLOROETHANE; ETHYLENE DICHLORIDE	107-06-2
(35) 1,1-DICHLOROETHYLENE; 1,1-DICHLOROETHENE; VINYLIDEN CHLORIDE	75-35-4
(36) CIS-1,2-DICHLOROETHYLENE; CIS-1,2-DICHLOROETHENE	156-59-2
(37) TRANS-1,2-DICHLOROETHYLENE; TRANS-1,2-DICHLOROETHENE	156-60-5
(38) 1,2-DICHLOROPROPANE; PROPYLENE DICHLORIDE	78-87-5
(39) CIS-1,3-DICHLOROPROPENE	10061-01-5
(40) TRANS-1,3-DICHLOROPROPENE	10061-02-6
(41) ETHYLBENZENE	100-41-4
(42) 2-HEXANONE; METHYL BUTYL KETONE	591-78-6
(43) METHYL BROMIDE; BROMOMETHANE	74-83-9
(44) METHYL CHLORIDE; CHLOROMETHANE	74-87-3
(45) METHYLENE BROMIDE; DIBROMOMETHANE	74-95-3
(46) METHYLENE CHLORIDE; DICHLOROMETHANE	75-09-2
(47) METHYL ETHYL KETONE; MEK; 2-BUTANONE	78-93-3
(48) METHYL IODIDE; IODOMETHANE	74-88-4
(49) 4-METHYL-2-PENTANONE; METHYL ISOBUTYL KETONE	108-10-1
(50) STYRENE	100-42-5
(51) 1,1,1,2-TETRACHLOROETHANE	630-20-6
(52) 1,1,2,2-TETRACHLOROETHANE	79-34-5
(53) TETRACHLOROETHYLENE; TETRACHLOROETHENE PERCHLOROETHYLENE	127-18-4
(54) TOLUENE	108-88-3
(55) 1,1,1-TRICHLOROETHANE; METHYLCHLOROFORM	71-55-6
(56) 1,1,2-TRICHLOROETHANE	79-00-5
(57) TRICHLOROETHYLENE; TRICHLOROETHENE	79-01-6
(58) TRICHLOROFLUOROMETHANE; CFC-11	75-69-4
(59) 1,2,3-TRICHLOROPROPANE	96-18-4
(60) VINYL ACETATE	108-05-4
(61) VINYL CHLORIDE	75-01-4
(62) XYLENES	1330-20-7

This list contains 47 volatile organics for which possible analytical procedures provided in EPA report SW-846 “Test Methods for Evaluating Solid Waste,” third edition, November 1986, as revised December 1987, includes method 8260; and 15 metals for which SW-846 provides either method 6010 or a method from the 7000 series of methods.

Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

Cas number = Chemical Abstracts Service registry number.

APPENDIX II FOR ASSESSMENT MONITORING

COMMON NAME{2}	CAS RN{3}	SUGGESTED CHEMICAL ABSTRACTS SERVICE INDEX NAME{4}	METHODS {5}	PQL (µG/L) {6}
ACENAPHTHENE	83-32-9	ACENAPHTHYLENE, 1,2-DIHYDRO-	8100	200
			8270	10
ACENAPHTHYLENE	208-96-8	ACENAPHTHYLENE	8100	200
			8270	10
ACETONE	67-64-1	2-PROPANONE	8260	100
ACETONITRILE; METHYL CYANIDE	75-05-8	ACETONITRILE	8015	100
ACETOPHENONE	98-86-2	ETHANONE, 1-PHENYL-	8270	10
2-ACETYLAMINOFLUORENE; 2-AAF	53-96-3	ACETAMIDE, N-9H-FLUOREN-2-YL-	8270	20
ACROLEIN	107-02-8	2-PROPENAL	8030	5
			8260	100
ACRYLONITRILE	107-13-1	2-PROPENENITRILE	8030	5
			8260	200
ALDRIN	309-00-2	1,4:5,8-DIMETHANONAPHTHALENE, 1,2, 3,4,10,10-HEXACHLORO-1,4,4A,5,8, 8A-HEXAHYDRO- (1,4,4A,5,8,8A)	8080	0.05
			8270	10
ALLYL CHLORIDE	107-05-1	1-PROPENE, 3-CHLORO-	8010	5
			8260	10
4-AMINOBIPHENYL	92-67-1	[1,1{1}-BIPHENYL]-4-AMINE	8270	20
ANTHRACENE	120-12-7	ANTHRACENE	8100	200
			8270	10
ANTIMONY	(TOTAL)	ANTIMONY	6010	300
			7040	2000
			7041	30
ARSENIC	(TOTAL)	ARSENIC	6010	500
			7060	10
			7061	20
BARIUM	(TOTAL)	BARIUM	6010	20
			7080	1000
BENZENE	71-43-2	BENZENE	8020	2
			8021	0.1
			8260	5
BENZO[A]ANTHRACENE; BENZANTHRACENE	56-55-3	BENZ[A]ANTHRACENE	8100	200
			8270	10
BENZO[B]FLUORANTHENE	205-99-2	BENZ[E]ACEPHENANTHRYLENE	8100	200
			8270	10
BENZO[K]FLUORANTHENE	207-08-9	BENZO[K]FLUORANTHENE	8100	200
			8270	10
BENZO[GHI]PERYLENE	191-24-2	BENZO[GHI]PERYLENE	8100	200
			8270	10
BENZO[A]PYRENE	50-32-8	BENZO[A]PYRENE	8100	200
			8270	10
BENZYL ALCOHOL	100-51-6	BENZENEMETHANOL	8270	20
BERYLLIUM	(TOTAL)	BERYLLIUM	6010	3
			7090	50
			7091	2
ALPHA-BHC	319-84-6	CYCLOHEXANE, 1,2,3,4,5,6- HEXACHLORO-, (1,2,3,4,5,6)-	8080	0.05
			8270	10
BETA-BHC	319-85-7	CYCLOHEXANE, 1,2,3,4,5,6- HEXACHLORO-, (1,2,3,4,5,6)-	8080	0.05
			8270	20
DELTA-BHC	319-86-8	CYCLOHEXANE, 1,2,3,4,5,6- HEXACHLORO-, (1,2,3,4,5,6)-	8080	0.1
			8270	20
GAMMA-BHC; LINDANE	58-89-9	CYCLOHEXANE, 1,2,3,4,5,6- HEXACHLORO-, (1,2,3,4,5,6)-	8080	0.05
			8270	20
BIS(2-CHLOROETHOXY)METHANE	111-91-1	ETHANE, 1,1{1}-[METHYLENEBIS(OXY)] BIS[2-CHLORO-	8110	5
			8270	10
BIS(2-CHLOROETHYL) ETHER; DICHLOROETHYL ETHER.	111-44-4	ETHANE, 1,1{1}-OXYBIS[2-CHLORO-	8110	3
			8270	10
BIS-(2-CHLORO-1-METHYLETHYL) ETHER; 2,2{1}-DICHLORODIISOPROPYL ETHER; DCIP, SEE NOTE 7.	108-60-1	PROPANE, 2,2{1}-OXYBIS[1-CHLORO-	8110	10
			8270	10
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	1,2-BENZENEDICARBOXYLIC ACID, BIS (2-ETHYLHEXYL) ESTER	8060	20
BROMOCHLOROMETHANE; CHLOROBROMOMETHANE.	74-97-5	METHANE, BROMOCHLORO-	8021	0.1
			8260	5
BROMODICHLOROMETHANE; DIBROMOCHLOROMETHANE.	75-27-4	METHANE, BROMODICHLORO-	8010	1
			8021	0.2
			8260	5
BROMOFORM; TRIBROMOMETHANE	75-25-2	METHANE, TRIBROMO-	8010	2
			8021	15
			8260	5
4-BROMOPHENYL PHENYL ETHER	101-55-3	BENZENE, 1-BROMO-4-PHENOXY-	8110	25
			8270	10
BUTYL BENZYL PHTHALATE; BENZYL BUTYL PHTHALATE.	85-68-7	1,2-BENZENEDICARBOXYLIC ACID, BUTYL PHENYLMETHYL ESTER	8060	5
			8270	10
CADMIUM	(TOTAL)	CADMIUM	6010	40

COMMON NAME{2}	CAS RN{3}	SUGGESTED CHEMICAL ABSTRACTS SERVICE INDEX NAME{4}	METHODS {5}	PQL (µG/L) {6}
			7130	50
			7131	1
CARBON DISULFIDE	75-15-0	CARBON DISULFIDE	8260	100
CARBON TETRACHLORIDE	56-23-5	METHANE, TETRACHLORO-	8010	1
			8021	0.1
			8260	10
CHLORDANE	SEENOTE8	4,7-METHANO-1H-INDENE, 1,2,4,5,6,7, 8,8-OCTACHLORO-2,3,3A,4,7,7A-HEXAHYDRO-	8080	0.1
			8270	50
P-CHLOROANILINE	106-47-8	BENZENAMINE, 4-CHLORO-	8270	20
CHLOROBENZENE	108-90-7	BENZENE, CHLORO-	8010	2
			8020	2
			8021	0.1
			8260	5
CHLOROBENZILATE	510-15-6	BENZENEACETIC ACID, 4-CHLORO-(4-CHLOROPHENYL)-HYDROXY-, ETHYL ESTER	8270	10
P-CHLORO-M-CRESOL; 4-CHLORO-3-METHYLPHENOL.	59-50-7	PHENOL, 4-CHLORO-3-METHYL-	8040	5
			8270	20
CHLOROETHANE; ETHYL CHLORIDE	75-00-3	ETHANE, CHLORO-	8010	5
			8021	1
			8260	10
CHLOROFORM; TRICHLOROMETHANE	67-66-3	METHANE, TRICHLORO-	8010	0.5
			8021	0.2
			8260	5
2-CHLORONAPHTHALENE	91-58-7	NAPHTHALENE, 2-CHLORO-	8120	10
			8270	10
2-CHLOROPHENOL	95-57-8	PHENOL, 2-CHLORO-	8040	5
			8270	10
4-CHLOROPHENYL PHENYL ETHER	7005-72-3	BENZENE, 1-CHLORO-4-PHENOXY-	8110	40
			8270	10
CHLOROPRENE	126-99-8	1,3-BUTADIENE, 2-CHLORO-	8010	50
			8260	20
CHROMIUM	(TOTAL)	CHROMIUM	6010	70
			7190	500
			7191	10
CHRYSENE	218-01-9	CHRYSENE	8100	200
			8270	10
COBALT	(TOTAL)	COBALT	6010	70
			7200	500
			7201	10
COPPER	(TOTAL)	COPPER	6010	60
			7210	200
			7211	10
M-CRESOL; 3-METHYLPHENOL	108-39-4	PHENOL, 3-METHYL-	8270	10
O-CRESOL; 2-METHYLPHENOL	95-48-7	PHENOL, 2-METHYL-	8270	10
P-CRESOL; 4-METHYLPHENOL	106-44-5	PHENOL, 4-METHYL-	8270	10
CYANIDE	57-12-5	CYANIDE	9010	200
2,4-D; 2,4-DICHLOROPHENOXYACETIC ACID.	94-75-7	ACETIC ACID, (2,4-DICHLOROPHENOXY)-	8150	10
4,4{1}-DDD	72-54-8	BENZENE 1,1{1}-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO-	8080	0.1
			8270	10
4,4{1}-DDE	72-55-9	BENZENE, 1,1{1}-(DICHLOROETHYENYLIDENE)BIS[4-CHLORO-	8080	0.05
			8270	10
4,4{1}-DDT	50-29-3	BENZENE, 1,1{1}-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO-	8080	0.1
			8270	10
DIALLATE	2303-16-4	CARBAMOTHIOIC ACID, BIS(1-METHYLETHYL)-,S-(2,3-DICHLORO-2-PROPENYL) ESTER	8270	10
DIBENZ[A,H]ANTHRACENE	53-70-3	DIBENZ[A,H]ANTHRACENE	8100	200
			8270	10
DIBENZOFURAN	132-64-9	DIBENZOFURAN.....	8270	10
DIBROMOCHLOROMETHANE; CHLORODIBROMOMETHANE.	124-48-1	METHANE, DIBROMOCHLORO-	8010	1
			8021	0.3
			8260	5
1,2-DIBROMO-3-CHLOROPROPANE; DBCP	96-12-8	PROPANE, 1,2-DIBROME-3-CHLORO- ...	8011	0.1
			8021	30
			8260	25
1,2-DIBROMOETHANE; ETHYLENE DRIBROMIDE; EDB.	106-93-4	ETHANE, 1,2-DIBROMO-	8011	0.1
			8021	10
			8260	5
DI-N-BUTYL PHTHALATE	84-74-2	1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER	8060	5
			8270	10
O-DICHLOROBENZENE; 1,2-DICHLOROBENZENE.	95-50-1	BENZENE, 1,2-DICHLORO-	8010	2
			8020	5
			8021	0.5
			8120	10
			8260	5
			8270	10
M-DICHLOROBENZENE; 1,3-DICHLOROBENZENE.	541-73-1	BENZENE, 1,3-DICHLORO-	8010	5
			8020	5
			8021	0.2

COMMON NAME{2}	CAS RN{3}	SUGGESTED CHEMICAL ABSTRACTS SERVICE INDEX NAME{4}	METHODS {5}	PQL (µG/L) {6}
			8120	10
			8260	5
			8270	10
P-DICHLOROBENZENE; 1,4-DICHLOROBENZENE.	106-46-7	BENZENE, 1,4-DICHLORO-	8010	2
			8020	5
			8021	0.1
			8120	15
			8260	5
			8270	10
3,3{1}-DICHLOROBENZIDINE	91-94-1	[1,1{1}-BIPHENYL]-4,4{1}-DIAMINE, 3,3{1}-DICHLORO-	8270	20
TRANS-1,4-DICHLORO-2-BUTENE	110-57-6	2-BUTENE, 1,4-DICHLORO-, (E)-	8260	100
DICHLORODIFLUOROMETHANE; CFC 12; .	75-71-8	METHANE, DICHLORODIFLUORO-	8021	0.5
			8260	5
1,1-DICHLOROETHANE; ETHYLIDENE CHLORIDE.	75-34-3	ETHANE, 1,1-DICHLORO-	8010	1
			8021	0.5
			8260	5
1,2-DICHLOROETHANE; ETHYLENE DICHLORIDE.	107-06-2	ETHANE, 1,1-DICHLORO-	8010	0.5
			8021	0.3
			8260	5
1,1-DICHLOROETHYLENE; 1,1-DICHLOROETHENE; VINYLIDENE CHLORIDE.	75-35-4	ETHENE, 1,1-DICHLORO-	8010	1
			8021	0.5
			8260	5
CIS-1,2-DICHLOROETHYLENE; CIS-1,2-DICHLOROETHENE.	156-59-2	ETHENE, 1,2-DICHLORO-, (Z)-	8021	0.2
			8260	5
TRANS-1,2-DICHLOROETHYLENE TRANS-1,2-DICHLOROETHENE.	156-60-5	ETHENE, 1,2-DICHLORO-, (E)-	8010	1
			8021	0.5
			8260	5
2,4-DICHLOROPHENOL	120-83-2	PHENOL, 2,4-DICHLORO-	8040	5
			8270	10
2,6-DICHLOROPHENOL	87-65-0	PHENOL, 2,6-DICHLORO-	8270	10
1,2-DICHLOROPROPANE; PROPYLENE DICHLORIDE.	78-87-5	PROPANE, 1,2-DICHLORO-	8010	0.5
			8021	0.05
			8260	5
1,3-DICHLOROPROPANE; TRIMETHYLENE DICHLORIDE.	142-28-9	PROPANE, 1,3-DICHLORO-	8021	0.3
			8260	5
2,2-DICHLOROPROPANE; ISOPROPYLIDENE CHLORIDE.	594-20-7	PROPANE, 2,2-DICHLORO-	8021	0.5
			8260	15
1,1-DICHLOROPROPENE	563-58-6	1-PROPENE, 1,1-DICHLORO-	8021	0.2
			8260	5
CIS-1,3-DICHLOROPROPENE	10061-01-5	1-PROPENE, 1,3-DICHLORO-, (Z)- ...	8010	20
			8260	10
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1-PROPENE, 1,3-DICHLORO-, (E)- ...	8010	5
			8260	10
DIELDRIN	60-57-1	2,7:3,6-DIMETHANONAPHTH[2,3-B] OXIRENE, 3,4,5,6,9,9-HEXA, CHLORO -1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1A,2,2A,3,6,6A,7,7A)-	8080	0.05
			8270	10
DIETHYL PHTHALATE	84-66-2	1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER	8060	5
			8270	10
0,0-DIETHYL 0-2-PYRAZINYL PHOSPHOROTHIOATE; THIONAZIN.	297-97-2	PHOSPHOROTHIOIC ACID, 0,0-DIETHYL 0-PYRAZINYL ESTER	8141	5
			8270	20
DIMETHOATE	60-51-5	PHOSPHORODITHIOIC ACID, 0,0-DIMETHYL S-[2-(METHYLAMINO)-2-OXOETHYL] ESTER	8141	3
			8270	20
P-(DIMETHYLAMINO)AZOBENZENE	60-11-7	BENZENAMINE, N,N-DIMETHYL-4-(PHENYLAZO)-	8270	10
7,12-DIMETHYLBENZ[A]ANTHRACENE ...	57-97-6	BENZ[A]ANTHRACENE, 7,12-DIMETHYL-	8270	10
3,3{1}-DIMETHYLBENZIDINE	119-93-7	[1,1{1}-BIPHENYL]-4,4{1}-DIAMINE, 3,3{1}-DIMETHYL-	8270	10
2,4-DIMETHYLPHENOL; M-XYLENOL	105-67-9	PHENOL, 2,4-DIMETHYL-	8040	5
			8270	10
DIMETHYL PHTHALATE	131-11-3	1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER	8060	5
			8270	10
M-DINITROBENZENE	99-65-0	BENZENE, 1,3-DINITRO-	8270	20
4,6-DINITRO-O-CRESOL 4,6-DINITRO-2-METHYLPHENOL.	534-52-1	PHENOL, 2-METHYL-4,6-DINITRO	8040	150
			8270	50
2,4-DINITROPHENOL;	51-28-5	PHENOL, 2,4-DINITRO-	8040	150
			8270	50
2,4-DINITROTOLUENE	121-14-2	BENZENE, 1-METHYL-2,4-DINITRO- ...	8090	0.2
			8270	10
2,6-DINITROTOLUENE	606-20-2	BENZENE, 2-METHYL-1,3-DINITRO- ...	8090	0.1
			8270	10
DINOSEB; DNBP; 2-SEC-BUTYL-4,6-DINITROPHENOL.	88-85-7	PHENOL, 2-(1-METHYLPROPYL)-4,6-DINITRO-	8150	1
			8270	20
DI-N-OCTYL PHTHALATE	117-84-0	1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER	8060	30
			8270	10
DIPHENYLAMINE	122-39-4	BENZENAMINE, N-PHENYL-	8270	10
DISULFOTON	298-04-4	PHOSPHORODITHIOIC ACID, 0,0-DIETHYL S-[2-(ETHYLTHIO)ETHYL] ESTER	8140	2
			8141	0.5
			8270	10
ENDOSULFAN I	959-98-8	6,9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,10-	8080	0.1
			8270	20

COMMON NAME{2}	CAS RN{3}	SUGGESTED CHEMICAL ABSTRACTS SERVICE INDEX NAME{4}	METHODS {5}	PQL (µG/L) {6}
		HEXA- CHLORO-1,5,5A,6,9,9A-HEXAHYDRO-, 3-OXIDE,		
ENDOSULFAN II	33213-65-9	6,9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,10-HEXA- CHLORO-1,5,5A,6,9,9A-HEXAHYDRO-, 3-OXIDE, (3,5A,6,9,9A)	8080 8270	0.05 20
ENDOSULFAN SULFATE	1031-07-8	6,9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,10-HEXA- CHLORO-1,5,5A,6,9,9A-HEXAHYDRO-,3-3-DIOXIDE	8080 8270	0.5 10
ENDRIN	72-20-8	2,7:3,6-DIMETHANONAPHTH[2,3-B] OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1A,2,2A,3,6,6A,7,7A)-	8080 8270	0.1 20
ENDRIN ALDEHYDE	7421-93-4	1,2,4-METHENOCYCLOPENTA[CD] PENTALENE-5-CARBOXALDEHYDE, 2,2A,3,3,4,7-HEXACHLORODECAHYDRO-, (1,2,2A,4,4A,5,6A,6B,7R)-	8080 8270	0.2 10
ETHYLBENZENE	100-41-4	BENZENE, ETHYL-	8020 8221 8260	2 0.05 5
ETHYL METHACRYLATE	97-63-2	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER	8015 8260 8270	5 10 10
ETHYL METHANESULFONATE	62-50-0	METHANESULFONIC ACID, ETHYL ESTER	8270	20
FAMPHUR	52-85-7	PHOSPHOROTHIOIC ACID, O-[4-[(DIMETHYLAMINO)SULFONYL]PHENYL] O,O-DIMETHYL ESTER	8270	20
FLUORANTHENE	206-44-0	FLUORANTHENE	8100 8270	200 10
FLUORENE	86-73-7	9H-FLUORENE	8100 8270	200 10
HEPTACHLOR	76-44-8	4,7-METHANO-1H-INDENE, 1,4,5,6,7,8,8-HEPTACHLORO-3A,4,7,7A-TETRAHYDRO-	8080 8270	0.05 10
HEPTACHLOR EPOXIDE	1024-57-3	2,5-METHANO-2H-INDENO[1,2-B] OXIRENE, 2,3,4,5,6,7,7-HEPTACHLORO-1A,1B,5,5A,6,6A-HEXAHYDRO-, (1A,1B,2,5,5A,6,6A)	8080 8270	1 10
HEXACHLOROBENZENE	118-74-1	BENZENE, HEXACHLORO-	8120 8270	0.5 10
HEXACHLOROBUTADIENE	87-68-3	1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO-	8021 8120 8260 8270	0.5 5 10 10
HEXACHLOROCYCLOPENTADIENE	77-47-4	1,3-CYCLOPENTADIENE, 1,2,3,4,5,5-HEXACHLORO-	8120 8270	5 10
HEXACHLOROETHANE	67-72-1	ETHANE, HEXACHLORO-	8120 8260 8270	0.5 10 10
HEXACHLOROPROPENE	1888-71-7	1-PROPENE, 1,1,2,3,3,3-HEXACHLORO-	8270	10
2-HEXANONE; METHYL BUTYL KETONE ..	591-78-6	2-HEXANONE	8260	50
INDENO(1,2,3-CD)PYRENE	193-39-5	INDENO(1,2,3-CD)PYRENE	8100 8270	200 10
ISOBUTYL ALCOHOL	78-83-1	1-PROPANOL, 2-METHYL-	8015 8240	50 100
ISODRIN	465-73-6	1,4,5,8-DIMETHANONAPHTHALENE,1,2,3,4,10,10- HEXACHLORO-1,4,4A,5,8,8A HEXAHYDRO- (1,4,4A,5,8,8A)-	8270 8260	20 10
ISOPHORONE	78-59-1	2-CYCLOHEXEN-1-ONE, 3,5,5-TRIMETHYL-	8090 8270	60 10
ISOSAFROLE	120-58-1	1,3-BENZODIOXOLE, 5-(1-PROPENYL)-	8270	10
KEPONE	143-50-0	1,3,4-METHENO-2H-CYCLOBUTA[CD] PENTALEN-2-ONE, 1,1A,3,3A,4,5,5,5A,5B,6-DECACHLOROOCTAHYDRO-	8270	20
LEAD	(TOTAL)	LEAD	6010 7420 7421	400 1000 10
MERCURY	(TOTAL)	MERCURY	7470	2
METHACRYLONITRILE	126-98-7	2-PROPENENITRILE, 2-METHYL-	8015 8260	5 100
METHAPYRILENE	91-80-5	1,2-ETHANEDIAMINE, N,N-DIMETHYL-N{1}-2-PYRIDINYL-N1/2-THIENYLMETHYL)-	8270	100
METHOXYCHLOR	72-43-5	BENZENE,1,1{1}-(2,2,2,TRICHLOROETHYLIDENE)BIS[4-METHOXY	8080 8270	2 10
METHYL BROMIDE; BROMOMETHANE	74-83-9	METHANE, BROMO-	8010 8021	20 10
METHYL CHLORIDE; CHLOROMETHANE ...	74-87-3	METHANE, CHLORO-	8010 8021	1 0.3
3-METHYLCHOLANTHRENE	56-49-5	BENZ[J]ACEANTHRYLENE, 1,2-DIHYDRO-3-METHYL-	8270	10
METHYL ETHYL KETONE; MEK; 2-	78-93-3	2-BUTANONE	8015	10

COMMON NAME{2}	CAS RN{3}	SUGGESTED CHEMICAL ABSTRACTS SERVICE INDEX NAME{4}	METHODS {5}	PQL (µG/L) {6}
BUTANONE.			8260	100
METHYL IODIDE; IODOMETHANE	74-88-4	METHANE, IODO-	8010	40
			8260	10
METHYL METHACRYLATE	80-62-6	2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER	8015	2
			8260	30
METHYL METHANESULFONATE	66-27-3	METHANESULFONIC ACID, METHYL ESTER	8270	10
2-METHYLNAPHTHALENE	91-57-6	NAPHTHALENE, 2-METHYL-	8270	10
METHYL PARATHION; PARATHION METHYL	298-00-0	PHOSPHOROTHIOIC ACID, 0,0-DIMETHYL	8140	0.5
			8141	1
			8270	10
4-METHYL-2-PENTANONE; METHYL ISOBUTYL KETONE.	108-10-1	2-PENTANONE, 4-METHYL-	8015	5
			8260	100
METHYLENE BROMIDE; DIBROMOMETHANE	74-95-3	METHANE, DIBROMO-	8010	15
			8021	20
			8260	10
METHYLENE CHLORIDE; DICHLOROMETHANE.	75-09-2	METHANE, DICHLORO-	8010	5
			8021	0.2
			8260	10
NAPHTHALENE	91-20-3	NAPHTHALENE	8021	0.5
			8100	200
			8260	5
			8270	10
1,4-NAPHTHOQUINONE	130-15-4	1,4-NAPHTHALENEDIONE	8270	10
1-NAPHTHYLAMINE	134-32-7	1-NAPHTHALENAMINE	8270	10
2-NAPHTHYLAMINE	91-59-8	2-NAPHTHALENAMINE	8270	10
NICKEL	(TOTAL)	NICKEL	6010	150
			7520	400
O-NITROANILINE; 2-NITROANILINE ...	88-74-4	BENZENAMINE, 2-NITRO-	8270	50
M-NITROANILINE; 3-NITROANILE	99-09-2	BENZENAMINE, 3-NITRO-	8270	50
P-NITROANILINE; 4-NITROANILINE ...	100-01-6	BENZENAMINE, 4-NITRO	8270	20
NITROBENZENE	98-95-3	BENZENE, NITRO-	8090	40
			8270	10
O-NITROPHENOL; 2-NITROPHENOL	88-75-5	PHENOL, 2-NITRO-	8040	5
			8270	10
P-NITROPHENOL; 4-NITROPHENOL	100-02-7	PHENOL, 4-NITRO-	8040	10
			8270	50
N-NITROSODI-N-BUTYLAMINE	924-16-3	1-BUTANAMINE, N-BUTYL-N-NITROSO- .	8270	10
N-NITROSODIETHYLAMINE	55-18-5	ETHANAMINE, N-ETHYL-N-NITROSO- ...	8270	20
N-NITROSODIMETHYLAMINE	62-75-9	METHANAMINE, N-METHYL-N-NITROSO- .	8070	2
N-NITROSODIPHENYLAMINE	86-30-6	BENZENAMINE, N-NITROSO-N-PHENYL- .	8070	5
N-NITROSODIPROPYLAMINE; N-NITROSO-N-DIPROPYLAMINE; DI-N-PROPYLNITROSAMINE.	621-64-7	1-PROPANAMINE, N-NITROSO-N-PROPYL-	8070	10
N-NITROSOMETHYLETHALAMINE	10595-95-6	ETHANAMINE, N-METHYL-N-NITROSO- ..	8270	10
N-NITROSOPIPERIDINE	100-75-4	PIPERIDINE, 1-NITROSO-	8270	20
N-NITROSOPYRROLIDINE	930-55-2	PYRROLIDINE, 1-NITROSO-	8270	40
5-NITRO-O-TOLUIDINE	99-55-8	BENZENAMINE, 2-METHYL-5-NITRO- ...	8270	10
PARATHION	56-38-2	PHOSPHOROTHIOIC ACID, 0,0-DIETHYL 0-(4-NITROPHENYL) ESTER	8141	0.5
			8270	10
PENTACHLOROBENZENE	608-93-5	BENZENE, PENTACHLORO-	8270	10
PENTACHLORONITROBENZENE	82-68-8	BENZENE, PENTACHLORONITRO-	8270	20
PENTACHLOROPHENOL	87-86-5	PHENOL, PENTACHLORO-	8040	5
			8270	50
PHENACETIN	62-44-2	ACETAMIDE, N-(4-ETHOXYPHENL)	8270	20
PHENANTHRENE	85-01-8	PHENANTHRENE	8100	200
			8270	10
PHENOL	108-95-2	PHENOL	8040	1
P-PHENYLENEDIAMINE	106-50-3	1,4-BENZENEDIAMINE	8270	10
PHORATE	298-02-2	PHOSPHORODITHIOIC ACID, 0,0-DIETHYL S-[(ETHYLTHIO)METHYL] ESTER	8140	2
			8141	0.5
			8270	10
POLYCHLORINATED BIPHENYLS; PCBS; AROCLORS.	SEENOTE9	1,1'-BIPHENYL, CHLORO DERIVATIVES	8080	50
			8270	200
PRONAMIDE	23950-58-5	BENZAMIDE, 3,5-DICHLORO-N-(1,1-DIMETHYL-2-PROPYNYL)-	8270	10
PROPIONITRILE; ETHYL CYANIDE	107-12-0	PROPANENITRILE	8015	60
			8260	150
PYRENE	129-00-0	PYRENE	8100	200
			8270	10
SAFROLE	94-59-7	1,3-BENZODIOXOLE, 5-(2-PROPENYL)-	8270	10
SELENIUM	(TOTAL)	SELENIUM	6010	750
			7740	20
			7741	20
SILVER	(TOTAL)	SILVER	6010	70
			7760	100
			7761	10
SILVEX; 2,4,5-TP	93-72-1	PROPANOIC ACID, 2-(2,4,5-TRICHLOROPHENOXY)-	8150	2
STYRENE	100-42-5	BENZENE, ETHENYL-	8020	1
			8021	0.1
			8260	10
SULFIDE	18496-25-8	SULFIDE	9030	4000
2,4,5-T; 2,4,5-	93-76-5	ACETIC ACID,(2,4,5-TRICHLOROPHENOXY	8150	2

COMMON NAME{2}	CAS RN{3}	SUGGESTED CHEMICAL ABSTRACTS SERVICE INDEX NAME{4}	METHODS {5}	PQL (µG/L) {6}
,2,4,5-TETRACHLOROBENZENE	95-94-3	BENZENE, 1,2,4,5-TETRACHLORO-	8270	10
1,1,1,2-TETRACHLOROETHANE	630-20-6	ETHANE, 1,1,1,2-TETRACHLORO-	8010	5
			8021	0.05
			8260	5
1,1,2,2-TETRACHLOROETHANE	79-34-5	ETHANE, 1,1,2,2-TETRACHLORO-	8010	0.5
			8021	0.1
			8260	5
TETRACHLOROETHYLENE; TETRACHLOROETHENE; PERCHLOROETHYLENE.	127-18-4	ETHENE, TETRACHLORO-	8010	0.5
			8021	0.5
			8260	5
2,3,4,6-TETRACHLOROPHENOL	58-90-2	PHENOL, 2,3,4,6-TETRACHLORO-	8270	10
THALLIUM	(TOTAL)	THALLIUM	6010	400
			7840	1000
			7841	10
TIN	(TOTAL)	TIN	6010	40
TOLUENE	108-88-3	BENZENE, METHYL-	8020	2
			8021	0.1
			8260	5
O-TOLUIDINE	95-53-4	BENZENAMINE, 2-METHYL-	8270	10
TOXAPHENE	SEENOTE10	TOXAPHENE	8080	2
1,2,4-TRICHLOROBENZENE	120-82-1	BENZENE, 1,2,4-TRICHLORO-	8021	0.3
			8120	0.5
			8260	10
			8270	10
1,1,1-TRICHLOROETHANE; METHYLCHLOROFORM.	71-55-6	ETHANE, 1,1,1-TRICHLORO-	8010	0.3
			8021	0.3
			8260	5
1,1,2-TRICHLOROETHANE	79-00-5	ETHANE, 1,1,2-TRICHLORO-	8010	0.2
			8260	5
TRICHLOROETHYLENE; TRICHLOROETHENE	79-01-6	ETHENE, TRICHLORO-	8010	1
			8021	0.2
			8260	5
TRICHLOROFLUOROMETHANE; CFC-11 ...	75-69-4	METHANE, TRICHLOROFLUORO-	8010	10
			8021	0.3
			8260	5
2,4,5-TRICHLOROPHENOL	95-95-4	PHENOL, 2,4,5-TRICHLORO-	8270	10
2,4,6-TRICHLOROPHENOL	88-06-2	PHENOL, 2,4,6-TRICHLORO-	8040	5
			8270	10
1,2,3-TRICHLOROPROPANE	96-18-4	PROPANE, 1,2,3-TRICHLORO-	8010	10
			8021	5
			8260	15
0,0,0-TRIETHYL PHOSPHOROTHIOATE ..	126-68-1	PHOSPHOROTHIOIC ACID, 0,0,0-TRIETHYLESTER	8270	10
SYM-TRINITROBENZENE	99-35-4	BENZENE, 1,3,5-TRINITRO-	8270	10
VANADIUM 165	(TOTAL)	VANADIUM	6010	80
			7910	2000
			7911	40
VINYL ACETATE	108-05-4	ACETIC ACID, ETHENYL ESTER	8260	50
VINYL CHLORIDE; CHLOROETHENE	75-01-4	ETHENE, CHLORO-	8010	2
			8021	0.4
			8260	10
XYLENE (TOTAL)	SEENOTE11	BENZENE, DIMETHYL-	8020	5
			8021	0.2
			8260	5
ZINC	(TOTAL)	ZINC	6010	20
			7950	50
			7951	0.5

NOTES
{1}THE REGULATORY REQUIREMENTS PERTAIN ONLY TO THE LIST OF SUBSTANCES; THE RIGHT HAND COLUMNS (METHODS AND PQL) ARE GIVEN FOR INFORMATIONAL PURPOSES ONLY. SEE ALSO FOOTNOTES 5 AND 6 {2}COMMON NAMES ARE THOSE WIDELY USED IN GOVERNMENT REGULATIONS, SCIENTIFIC PUBLICATIONS, AND COMMERCE; SYNONYMS EXIST FOR MANY CHEMICALS {3}CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER. WHERE "TOTAL" IS ENTERED, ALL SPECIES IN THE GROUND WATER THAT CONTAIN THIS ELEMENT ARE INCLUDED. {4}CAS INDEX ARE THOSE USED IN THE 9TH COLLECTIVE INDEX. {5}SUGGESTED METHODS REFER TO ANALYTICAL PROCEDURE NUMBERS USED IN EPA REPORT SW-846 "TEST METHODS FOR EVALUATING SOLID WASTE", THIRD EDITION, NOVEMBER 1986, AS REVISED, DECEMBER 1987. ANALYTICAL DETAILS CAN BE FOUND IN SW- 846 AND IN DOCUMENTATION ON FILE AT THE AGENCY. CAUTION: THE METHODS LISTED ARE REPRESENTATIVE SW- 846 PROCEDURES AND MAY NOT ALWAYS BE THE MOST SUITABLE METHOD(S) FOR MONITORING AN ANALYTE UNDER THE REGULATIONS. {6}PRACTICAL QUANTITATION LIMITS (PQLS) ARE THE LOWEST CONCENTRATIONS OF ANALYTES IN GROUND WATERS THAT CAN BE RELIABLY DETERMINED WITHIN SPECIFIED LIMITS OF PRECISION AND ACCURACY BY THE INDICATED METHODS UNDER ROUTINE LABORATORY OPERATING CONDITIONS. THE PQLS LISTED ARE GENERALLY STATED TO ONE SIGNIFICANT FIGURE. PQLS ARE BASED ON 5 ML SAMPLES FOR VOLATILE ORGANICS AND 1 L SAMPLES FOR SEMIVOLATILE ORGANICS. CAUTION: THE PQL VALUES IN MANY CASES ARE BASED ONLY ON A GENERAL ESTIMATE FOR THE METHOD AND NOT ON A DETERMINATION FOR INDIVIDUAL COMPOUNDS; PQLS ARE NOT A PART OF THE REGULATION. {7}THIS SUBSTANCE IS OFTEN CALLED BIS(2-CHLOROISOPROPYL) ETHER, THE NAME CHEMICAL ABSTRACTS SERVICE APPLIES TO ITS NONCOMMERCIAL ISOMER, PROPANE, 2,2"-OXYBIS[2-CHLORO- (CAS RN 39638-32-9). {8}CHLORDANE: THIS ENTRY INCLUDES ALPHA-CHLORDANE (CAS RN 5103-71-9), BETA-CHLORDANE (CAS RN 5103-74-2), GAMMA -CHLORDANE (CAS RN 5566-34-7), AND CONSTITUENTS OF CHLORDANE (CAS RN 57-74-9 AND CAS RN 12789-03-6). PQL SHOWN IS FOR TECHNICAL CHLORDANE. PQLS OF SPECIFIC ISOMERS ARE ABOUT 20 µG/L BY METHOD 8270. {9}POLYCHLORINATED BIPHENYLS (CAS RN 1336-36-3); THIS CATEGORY CONTAINS CONGENER CHEMICALS, INCLUDING CONSTITUENTS OF AROCLOR 1016 (CAS RN 12674-11-2), AROCLOR 1221 (CAS RN 11104-28-2), AROCLOR 1232 (CAS RN 11141-16-5), AROCLOR 1242 (CAS RN 53469-21-9), AROCLOR 1248 (CAS RN 12672-29-6), AROCLOR 1254 (CAS RN 11097-69-1), AND AROCLOR 1260 (CAS RN 11096-82-5). THE PQL SHOWN IS AN AVERAGE VALUE FOR PCB CONGENERS. {10}TOXAPHENE: THIS ENTRY INCLUDES CONGENER CHEMICALS CONTAINED IN TECHNICAL TOXAPHENE (CAS RN 8001-35-2), I.E., CHLORINATED CAMPHENE. {11}XYLENE (TOTAL): THIS ENTRY INCLUDES O-XYLENE (CAS RN 96-47-6), M-XYLENE (CAS RN 108-38-3), P-XYLENE (CAS RN 106-42-3), AND UNSPECIFIED XYLENES (DIMETHYLBENZENES) (CAS RN 1330-20-7). PQLS FOR METHOD 8021 ARE 0.2 FOR O-XYLENE AND 0.1 FOR M- OR P-XYLENE. THE PQL FOR M-XYLENE IS 2.0 µG/L BY METHOD 8020 OR 8260.
MAXIMUM CONTAMINANT LEVELS (MCLS) PROMULGATED UNDER THE SAFE DRINKING WATER ACT

CHEMICAL	CAS NO.	MCL (MG/L)
ARSENIC	7440-38-2	0.05
BARIUM	7440-39-3	1.0
BENZENE	71-343-2	0.005
CADMIUM	7440-43-9	0.01
CARBON TETRACHLORIDE	56-23-5	0.005
CHROMIUM (HEXAVALENT)	7440-47-3	0.05
2,4-DICHLOROPHENOXY ACETIC ACID	94-75-7	0.1
1,4-DICHLOROBENZENE	106-46-7	0.075
1,2-DICHLOROETHANE	107-06-2	0.005
1,1-DICHLOROETHYLENE	75-35-4	0.007
ENDRIN	75-20-8	0.0002
FLUORIDE	7	4.0
LINDANE	58-89-9	0.004
LEAD	7439-92-1	0.05
MERCURY	7439-97-6	0.002
METHOXYCHLOR	72-43-5	0.1
NITRATE		10.0
SELENIUM	7782-49-2	0.01
SILVER	7440-22-4	0.05
TOXAPHENE	8001-35-2	0.005
1,1,1-TRICHLOROETHANE	71-55-6	0.2
TRICHLOROETHYLENE	79-01-6	0.005
2,4,5-TRICHLOROPHENOXY ACETIC ACID	93-76-5	0.01
VINYL CHLORIDE	75-01-4	0.002

Editor's Notes

History

[For history of this section, see Editor's Notes in the first section, 6 CCR 1007-2]