DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Air Quality Control Commission

COMMON PROVISIONS REGULATION

5 CCR 1001-2

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

I. DEFINITIONS, STATEMENT OF INTENT, AND GENERAL PROVISIONS APPLICABLE TO ALL EMISSION CONTROL REGULATIONS ADOPTED BY THE COLORADO AIR QUALITY CONTROL COMMISSION

I.A. Applicability

Emission control regulations adopted by the Air Quality Control Commission apply throughout Colorado unless otherwise stipulated. The Statement of Intent, Definitions, and General Provisions of this regulation apply to all emission control regulations adopted by the Commission unless otherwise stipulated.

Pursuant to Colorado Revised Statutes Section 24-4-103(12.5), copies of materials incorporated by reference are available for public inspection during regular business hours, or copies may be obtained at a reasonable cost from the Technical Secretary of the Air Quality Control Commission (the Commission), located at 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530, or may be examined at the State Publications Depository and Distribution Center. Materials incorporated by reference are those editions in existence as of the date of this regulation as promulgated or revised by the Commission and references do not include later amendments to or editions of the incorporated materials.

I.B. Authority

Colorado Revised Statutes Section 25-7-109 provides: As promptly as possible, the Commission shall adopt and promulgate, and from time to time modify or repeal emission control regulations which require the use of effective practical air pollution controls. Colorado Revised Statutes Sections 25-7-105 through 25-7-110, Section 25-7-114 and Section 25-7-117 are the general statutory authority for adoption by the Commission of standards, regulations, and programs.

I.C. Colorado Air Pollution Prevention and Control Act: Colorado Revised Statutes Section 25-7-102 (Legislative Declaration)

In order to foster the health, welfare, convenience, and comfort of the inhabitants of the state of Colorado and to facilitate the enjoyment and use of the scenic and natural resources of the state, it is declared to be the policy of this state to achieve the maximum practical degree of air purity in every portion of the state, to attain and maintain the National Ambient Air Quality Standards, and to prevent the significant deterioration of air quality in those portions of the state where the air quality is better than the National Ambient Air Quality Standards. To that end, it is the purpose of this article to require the use of all available practical methods that are technologically feasible and economically reasonable so as to reduce, prevent, and control air pollution throughout the state of Colorado; to require the development of an air quality control program in which the benefits of the air pollution control measures utilized bear a reasonable relationship to the economic, environmental, and energy impacts and other costs of such measures; and to maintain a cooperative program between the state and local units of government. It is further declared that the prevention, abatement, and control of air pollution in each portion of the state are matters of statewide concern and are affected with a public interest and that the provisions of this article

are enacted in the exercise of the police powers of this state for the purpose of protecting the health, peace, safety, and general welfare of the people of this state.

The General Assembly further recognizes that a current and accurate inventory of actual emissions of air pollutants from all sources is essential for the proper identification and designation of attainment and nonattainment areas, the determination of the most cost effective regulatory strategy to reduce pollution, the targeting of regulatory efforts to achieve the greatest health and environmental benefits, and the achievement of a federally approved clean air program. In order to achieve the most accurate inventory of air pollution sources possible, this article specifically provides incentives to achieve the most accurate and complete inventory possible, and to provide for the most accurate enforcement program achievable based upon that inventory.

I.D. Intent

To implement the legislative declaration and other sections of the Act, the Commission declares that it is the intent and purpose of these regulations is to:

I.D.1. Achieve and maintain levels of air quality that will protect human health and safety, prevent injury to plant and animal life, prevent damage to property, prevent unreasonable interference with the public welfare, preserve visibility, and protect scenic, aesthetic and historic values of Colorado;

I.D.2. Require the use of all available practicable methods to reduce, prevent, and control air pollution for the protection of the health, safety, and general welfare of the people of the state of Colorado. In order to achieve air purity consistent with this intent, it may be necessary, ultimately to control air pollutant emissions to such a degree of opacity so that the emissions are no longer visible;

I.D.3. Prevent significant degradation of Colorado's air resource;

I.D.4. Prevent odors and other air pollution problems which interfere with the comfortable enjoyment of life; and

I.D.5. Apply the major resources of the Colorado air pollution control programs toward solving priority air pollution problems.

I.E. Growth

The Commission recognizes that the growth in the amount and complexity of air pollution in Colorado is brought about by, and incident to, population growth, mobility, increased affluence, industrial development and changing social values in said state.

The Commission believes that the air pollution problem is likely to be aggravated and compounded by additional population growth, mobility, affluence, industrial development, and changing social values in the future, that are likely to result in serious potential danger to the public and the environment. Therefore, the Commission intends to pursue solutions, in conjunction with other appropriate agencies and interests that have a direct interest and capability in solving a growing air pollution problem(s) in relation to the broader environmental degradation problem. It is the intent of the Commission to coordinate with industrial, commercial, agricultural, and transportation planning organizations, land use, and other environmental organizations, the public, the legislature, educational organizations, and other major interests in such a manner as to prevent air pollution in Colorado.

I.F. Abbreviations

Abbreviations used in the Commission's regulations have the following meaning:

ASTM	American Society For Testing And Materials
APEN	Air Pollutant Emission Notice
AQCR	Air Quality Control Region
AQRV	Air Quality Related Value
BACT	Best Available Control Technology
BART	Best Available Retrofit Technology
BTU	British Thermal Unit
°C	Degree Celsius (Centigrade)
cal	Calorie
CAS	Chemical Abstract Service
CCR	Code Of Colorado Regulations
CdS	Cadmium Sulfide
Cfm	Cubic Feet Per Minute
CFR	Code Of Federal Regulations
CO	Carbon Monoxide
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
CEM	Continuous Emission Monitoring
COM	Continuous Opacity Monitoring
C.R.S.	Colorado Revised Statutes
dscm	Dry Cubic Meter(s) At Standard Conditions
dscf	Dry Cubic Feet At Standard Conditions
U.S. EPA	United States Environmental Protection Agency
ERC	Emission Reduction Credit
eq	Equivalence
°F	Degree Fahrenheit
FLM	Federal Land Manager
Fed. Reg.	Federal Register
FS	Forest Service
ft	Feet
g	Gram(s)
GACT	Generally Available Control Technology
gal	Gallon(s)
GHG	Greenhouse Gas
g eq	Gram Equivalent
GEP	Good Engineering Practice
gr	Grain(s)
hr	Hour(s)
HAP(s)	Hazardous Air Pollutant(s)
HC	Hydrocarbons
HCl	Hydrochloric Acid
Hg	Mercury
H2O	Water
H2S	Hydrogen Sulfide
H2SO4	Sulfuric Acid
hz	Hertz
in	Inch(s)
J	Joule
°K	Degree Kelvin
kg	Kilogram(s)
LAER	Lowest Achievable Emission Rate
l	Liter(s)
lpm	Liter(s) Per Minute

lb	Pound(s)
LTS	Long Term Strategy For Visibility Protection
m	Meter(s)
MACT	Maximum Achievable Control Technology
m eq	Milli Equivalent(s)
min	Minute(s)
mg	Milligram(s)
ml	Milliliter(s)
mm	Millimeter(s)
mol	Mole
mol. wt.	Molecular Weight
mV	Millivolt
N	Newton
NA(s)	Nonattainment Area(s)
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards For Hazardous Air Pollutants
N2	Nitrogen
Ng	Nanogram (10^{-9} Grams)
NPS	National Park Service
NO	Nitric Oxide
NO2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NRVOC(s)	Negligibly Reactive Volatile Organic Compound(s)
NSPS	New Source Performance Standards
NSR	New Source Review
O	Ohm
O2	Oxygen
Pa	Pascal
PM	Particulate Matter
PM10	Particulate Matter With Diameter Of 10 Microns Or Less
ppb	Parts Per Billion
ppm	Parts Per Million
PSD	Prevention Of Significant Deterioration
psia	Pounds Per Square Inch Absolute
psig	Pounds Per Square Inch Gauge
PTE	Potential To Emit
RACT	Reasonably Available Control Technology
°R	Degree Rankine
RFP	Reasonable Further Progress
Sec	Second
SIP	State Implementation Plan
SO2	Sulfur Dioxide
SO3	Sulfur Trioxide
SOx	Sulfur Oxides
STP	Standard Temperature And Pressure
TPY	Tons Per Year
TSP	Total Suspended Particulates
g	Microgram(s) (10^{-6} Gram)
USC	United States Code
VAC	Volts Alternating Current
VDC	Volts Direct Current
V	Volt
VOC	Volatile Organic Compound
W	Watt

I.G. Definitions

The following words and phrases shall have the following meanings unless the context in which they are used requires specific meaning within separate Commission regulations. In those instances, words and phrases shall be defined in the appropriate regulation.

ABSOLUTE VAPOR PRESSURE

The pressure relative to an absolute vacuum that a confined vapor exerts at a given temperature when in equilibrium with its solid or liquid state.

ACT

The "Colorado Air Pollution and Prevention Control Act" . Colorado Revised Statutes Title 25, Article 7.

AIR POLLUTANT

Any fume, smoke, particulate matter, vapor, gas, or any combination thereof that is emitted into or otherwise enters the atmosphere, including, but not limited to, any physical, chemical, biological, radioactive (including source material, special nuclear material, and by-product materials) substance or matter, but not including water vapor or steam condensate or any other emission exempted by the Commission consistent with the Federal Act. Such term includes any precursors to the formation of any air pollutant, to the extent the administrator of the U.S. EPA or the Commission has identified such precursor(s) for the particular purpose for which the term "air pollutant" is used.

AIR POLLUTION

Any 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 or with the conduct of business.

AIR POLLUTION CONTROL AUTHORITY

The Division or any person or agency given authority by the Division or a local government unit duly authorized with respect to air pollution control.

ALTERNATIVE METHOD

Any method of sampling and analysis for an air pollutant that is not a reference or equivalent method, but has been approved by the Division.

AMBIENT AIR

That portion of the atmosphere, external to the source, to which the general public has access.

AREA CLASSIFICATION

The Commission and the U.S. EPA have designated the entire state into attainment, nonattainment or unclassifiable areas.

ASPHALT CONCRETE PLANT

Any facility used to manufacture asphalt concrete by heating and drying aggregate and mixing with asphalt compounds.

ASPHALT PAVING MATERIAL

A petroleum based asphaltic compound used in the preparation of asphalt concrete for application to roads, highways, and streets.

ATMOSPHERE

The surrounding or outside air i.e. external to buildings. Emissions of air pollutants from a building or structure not specifically designed to control pollutant emissions from sources within such building or structure shall constitute an emission into the ambient air or atmosphere.

ATTAINMENT AREA

Any area within Colorado designated by the Commission and approved by the U.S. EPA in which the ambient air concentrations of any designated pollutants are less than that specified in the National Ambient Air Quality Standards.

BULK PLANT

A petroleum distillate storage and distribution facility that has an average daily throughput of 76,000 liters (20,000 gallons) or less which is loaded directly into delivery vehicles. (As used herein, "bulk plant" does not include service stations or a separate operation within a petroleum distribution facility that pumps only into fuel tanks fueling motor vehicles and trucks.)

CAPACITY FACTOR

The ratio of average load to the capacity rating of the machine or equipment for the specified period of time.

CAPTURE SYSTEM

The equipment, including hoods, ducts, fans, dampers, etc., used to capture or transport air pollutants.

CARBON DIOXIDE EQUIVALENT

A metric used to compare the emissions from various GHGs based upon their global warming potential (GWP). CO2e is determined by multiplying the mass amount of emissions (tons per year), for each GHG constituent by that gas's GWP, and summing the resultant values to determine CO2e (tons per year). The applicable GSPs codified in 40 CFR Part 98, Subpart A, Table A-1 – Global Warming Potentials are hereby incorporated by reference as in effect as of October 30, 2009, but not including later amendments.

CLAUS SULFUR RECOVERY PLANT

A process unit that recovers sulfur from hydrogen sulfide by a vapor-phase catalytic reaction involving sulfur dioxide and hydrogen sulfide.

COAL

All solid fossil fuels classified as anthracite, bituminous, sub-bituminous, or lignite by the appropriate American Society for Testing and Materials method.

COAL PREPARATION PLANT

Any facility (excluding underground mining operations), which prepares coal by one or more of the following processes: breaking, wet or dry cleaning, crushing, screening, and thermal drying.

COAL PROCESSING AND CONVEYING EQUIPMENT

Any machinery used to reduce the size of coal or to separate coal from refuse; the equipment used to convey coal or to remove coal from refuse; the equipment used to convey coal or to remove coal and refuse from the machinery including, but not limited to, breakers, crushers, screens, and conveyor belts.

COAL REFUSE

Waste products of coal mining, cleaning, and preparation.

COAL STORAGE SYSTEM

Any facility used to store coal except for open storage areas.

COMMISSION

The Air Quality Control Commission created by Colorado Revised Statutes Section 25-7-104.

CONDENSATE

Hydrocarbon liquids that remain liquid at standard conditions (68 degrees Fahrenheit and 29.92 inches Mercury) and are formed by condensation from, or produced with, natural gas, and which have an American Petroleum Institute gravity ("API gravity") of 40 degrees or greater.

CONSTRUCTION

Except as listed below or unless defined differently for a specific regulation, construction means the fabrication, erection, installation, or modification of an air pollution source. For Prevention of Significant Deterioration and New Source Review purposes, construction means any physical change or change in the method of operation (including, but not limited to, fabrication, erection, installation, demolition, or modification of an emissions unit) which would result in a change in actual emissions.

CONTINUOUS MONITORING SYSTEM

A comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

CONTROL DEVICE (STATIONARY)

The air pollution control equipment used to remove air pollutants generated by a stationary source.

CONTROL DEVICE (MOBILE)

Air pollution control equipment used to remove air pollutants generated by mobile sources.

CRUDE OIL

Raw petroleum as it comes from the well, as pyrolyzed from kerogen, processed from tires, or recovered from other processes.

CYCLONIC FLOW

Spiraling movements of exhaust gases within a duct or stack.

DAY

A single twenty-four hour period from midnight to midnight or other twenty-four hour period as approved by the Division on a case-by-case basis.

DEPARTMENT

The Colorado Department of Public Health and Environment.

DEPARTMENT OF REVENUE

The Colorado Department of Revenue.

DIVISION

The Air Pollution Control Division of the Colorado Department of Public Health and Environment except where specifically designated as the Division of Administration of the Colorado Department of Public Health and Environment.

DUST HANDLING EQUIPMENT

Any equipment used to transport, convey, or otherwise handle particulate matter that has been collected by an air pollution control device.

EMERGENCY POWER GENERATOR

A generator whose sole function is to provide back-up power when electric power is interrupted. Periodic testing of these generators and associated control and switching systems to insure that they are properly functioning will not prevent such a generator from being designated an emergency power generator.

EMISSION

The discharge or release into the atmosphere (ambient air) of one or more air pollutants.

EMISSION CONTROL REGULATION

Any standard promulgated by regulation that is applicable to all air pollutant sources within a specified area and that prohibits or establishes permissible limits for specific types of emissions in such areas. Also any regulation that by its terms is applicable to a specified type of facility, process, or activity for the purpose of controlling the extent, degree, or nature of pollutants emitted from such type of facility, process, or activity, any regulation adopted for the purpose of minimizing or preventing the emission of any air pollutant in potentially dangerous quantities, and also any regulation that adopts any design, equipment, work practice, or operational standard. Emission control regulations shall not include standards which describe maximum ambient air concentrations of specifically identified pollutants or which describe varying degrees of pollution of ambient air. Emission control regulations pertaining to hazardous air pollutants shall be consistent with the emission standards promulgated under Section 112 of the Federal Act or Colorado Revised Statutes Section 25-7-109.3 of the Colorado Act in preventing or reducing emissions of hazardous air pollutants, and may include application of measures, processes, methods, systems, or techniques, including, but not limited to, measures that:

a. Reduce the volume of, or eliminate emissions of, such pollutants through process changes, substitution of materials, or other modifications;

b. Enclose systems or processes to eliminate emissions;

c. Collect, capture, or treat such pollutants when released from a process, stack, storage, or fugitive emissions point;

d. Are design, equipment, or work practice standards (including requirements for operator training or certification); or

e. A combination of a. through d., above.

EMISSION STANDARD

See Standard of Performance.

EMISSIONS UNIT

Any part or activity of a stationary source that emits or has the potential to emit any air pollutant regulated under the state or Federal Acts. This term is not meant to alter or affect the definition of the term “unit” for purposes of Title IV (acid deposition control) of the federal act, or of the term “source” for purposes of the Air Pollutant Emission Notice requirements of Regulation Number 3, Part A, Section II.B.3.

ENFORCEABLE

Means all requirements contained in any permit issued in accordance with Regulation Number 3 and all regulatory requirements promulgated by the Commission, the state Act, consent decrees, and any requirements that are federally enforceable.

EQUIVALENT METHOD OF SAMPLING AND ANALYSIS

Any method of sampling and analysis of an air pollutant that has been demonstrated to the Division's satisfaction as having a consistent and quantitatively known relationship to a reference test method.

EXCAVATION

The removal of surface material, that may or may not be replaced, for the purpose of constructing or installing a structure or piece of equipment.

EXCESS EMISSION

Emissions of an air pollutant in excess of a performance standard promulgated by the Commission.

FEDERAL ACT

The Federal “Clean Air Act” , 42 U.S.C. Section 7401 et seq.

FEDERALLY ENFORCEABLE

Means all limitations and conditions which are enforceable by the U.S. EPA Administrator, including, but not limited to: (1) those requirements developed pursuant to Code of Federal Regulations Title 40, Parts 60, 61, 63, and 72; (2) requirements within any U.S. EPA-approved State Implementation Plan; (3) requirements in operating permits issued under an U.S. EPA-approved program; and (4) any requirements in permits for new or modified sources which are issued pursuant to the Code of Federal

Regulations Title 40, Section 52.21 or under regulations approved by the U.S. EPA pursuant to the Code of Federal Regulations Title 40, Part 51, Subpart I; except those permit requirements specifically identified as state-only enforceable requirements, or specifically incorporating Colorado regulatory requirements (other than the incorporation of federal requirements) not in the State Implementation Plan. Limitations and conditions voluntarily sought or accepted and included in operating permits or permits governing new or modified sources which are issued under regulations approved by the U.S. EPA, for the purpose of avoiding classification as a major source or major modification or of enabling a source to take advantage of the early reduction program under Section 112 of the Federal Act, are also federally enforceable.

FIXED CAPITAL COST

The capital needed to provide all the depreciable components.

FOSSIL FUEL

Natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.

FOSSIL FUEL AND/OR WOOD RESIDUE FIRED STEAM GENERATING UNIT

A furnace or boiler burning a fossil fuel and/or wood residue and producing steam by heat transfer.

FOUNDRY

A facility engaged in the melting or casting of metals or alloys.

FUEL BURNING EQUIPMENT

Any furnace, boiler, or other equipment and appurtenances thereto, burning fuel solely for the purpose of producing heat, but not including: (1) internal combustion engines, or (2) combustion sources that are a part of a manufacturing process where the emissions are intermixed with the process emissions.

FUGITIVE EMISSIONS

Emissions that could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

GRADING

The movement of soil for the purpose of establishing grade and drainage.

GREENHOUSE GAS

Means the aggregate group of the following six greenhouse gases: carbon dioxide (CO2), nitrous oxide (N2O), methane (CH4), hydrofluorcarbons (HFCs), perfluorcarbons (PFCs), and sulfur hexafluoride (SF6). These gases are treated in aggregate based on the total carbon dioxide equivalent (CO2e) of each gas as the pollutant GHG. See definition for carbon dioxide equivalent (CO2e).

HAUL ROADS

Roads that are used for commercial, industrial or governmental hauling of materials and which the general public does not have a right to use.

HAZARDOUS AIR POLLUTANT (HAP)

An air pollutant that presents through inhalation or other routes of exposure, a threat of adverse human health effects (including, but not limited to, substances that are known to be, or may reasonably be anticipated to be carcinogenic, mutagenic, teratogenic, neurotoxic, that cause reproductive dysfunction, or that are acutely or chronically toxic) or adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise and that has been listed pursuant to Section 112 of the Federal Act, or Section 25-7-109.3 of the state Act.

HIGHLY VOLATILE ORGANIC COMPOUND

A volatile organic compound or mixture of such compounds with a vapor pressure in excess of 570 torr (11 pounds per square inch absolute (psia)) at 20 degrees Celsius or 68 degrees Fahrenheit.

HIGH TERRAIN

Any area having an elevation of nine hundred feet or more above the base of the stack of the source.

HOURLY PERIOD

Any sixty-minute period.

HYDROCARBON (HC)

An organic compound consisting only of carbon and hydrogen.

INCINERATOR

Any equipment, device, or contrivance used for the destruction of solids, liquids or gaseous wastes by burning. Excludes devices commonly called wigwam waste burners used exclusively to burn wood wastes and incinerating toilet waste. Excludes devices commonly called Air Curtain Destructors used exclusively to burn 100% wood waste, clean lumber, or yard waste generated as a result of projects to reduce the risk of wildfire and is not operated at a commercial or industrial facility. Any Air Curtain Destructor subject to 40 CFR Part 60 incinerator requirements is considered an incinerator.

INDIAN GOVERNING BODY

The governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.

INDIAN RESERVATION

Any federally recognized reservation established by Treaty, Agreement, Executive Order, or Act of Congress.

INTERMITTENT SOURCES

Those stationary sources of air pollution that do not operate on a continuous basis for a period of time sufficient to allow for opacity observations in accordance with U. S. EPA Method 9.

ISOKINETIC SAMPLING

Sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

LEAD (PB)

Elemental lead, lead containing alloys and compounds of lead.

LOW TERRAIN

Any area other than high terrain.

MACHINE SHOP

A facility performing cutting, grinding, turning, honing, milling, debarring, lapping, electro-chemical machining, etching, or other similar operations.

MALFUNCTION

Any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

MANUFACTURING PROCESS OR PROCESS EQUIPMENT

An action, operation, or treatment involving chemical, industrial, or manufacturing factors, such as heat treating furnaces, or fuel-burning devices that are a part of a manufacturing process where emissions are intermixed with the process emissions, heating and reheating furnaces, sintering trains, electric furnaces, kilns, dryers, roasters, painting ovens, direct fired drying ovens, crushers, and all other methods and forms of manufacturing or processing that emit, or affect the emission of air pollutants, but not including fuel-burning equipment.

MONITORING SYSTEM

The complete set of equipment required under Regulation Number3 that is used to measure and record, if so required, those parameters specified.

MOTOR VEHICLE

Any self-propelled vehicle that is designed primarily for travel on the public highways and that is generally and commonly used to transport persons and property and for which registration in Colorado is required for operation on public roads and highways as defined in Colorado Revised Statute Section 42-1-102(58).

MOTOR VEHICLE EXHAUST GAS ANALYZER

Any instrument adopted by the Commission that is used to measure the concentrations or mass of hydrocarbons, carbon monoxide, nitrogen oxides, oxygen and carbon dioxide in motor vehicle exhaust.

NEGLIGIBLY REACTIVE VOLATILE ORGANIC COMPOUNDS (NRVOCs)

The U.S. EPA definition of volatile organic compounds located in the Code of Federal Regulations Title 40, Section 51.100 (s), referred to within these regulations as Negligibly Reactive Volatile Organic Compounds is hereby incorporated by reference by the Commission and made a part of the Colorado Air Quality Control Commission Regulations. Materials incorporated by reference are those in existence as of the date of this regulation and do not include later amendments. The material incorporated by reference is available for public inspection during regular business hours at the Office of the Commission, located at 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530, or may be examined at any state publications depository library. Parties wishing to inspect these materials should contact the Technical Secretary of the Commission, located at the Office of the Commission.

The list of Negligibly Reactive Volatile Organic Compounds is included for easier reference:

Methyl Acetate

Acetone

Methane

Ethane

Methylene Chloride (Dichloromethane)

1,1,1-Trichloroethane (Methylchloroform)

1,1,2-Trichloro-1,2,2-Triflouroethane (CFC-113)

Trichlorofluoromethane (CFC-11)

Dichlorodifluoromethane (CFC-12)

Chlorodifluoromethane (HCFC-22)

Trifluoromethane (HFC-23)

1,2-Dichloro 1,1,2,2-Tetrafluoroethane (CFC-114)

Chloropentafluoroethane (CFC-115)

1,1,1-Trifluoro 2,2-Dichloroethane (HCFC-123)

1,1,1,2-Tetrafluoroethane (HCFC-134A)

1,1-Dichloro 1-Fluoroethane (HCFC 141B)

1-Chloro 1,1-Difluoroethane (HCFC-142B)

2-Chloro-1,1,1,2-Tetrafluoroethane (HCFC-124)

Pentafluoroethane (HFC-125)

1,1,2,2-Tetrafluoroethane (HFC-134)

1,1,1-Trifluoroethane (HFC-143A)

1,1-Difluoroethane (HFC-152A)

Parachlorobenzotrifluoride (PCBTF)

Cyclic, Branched, or linear completely methylated siloxanes

Perchloroethylene (Tetrachloroethylene)

3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)

1,3-dichloro-1.1.2.2.3-pentafluoropropane (HCFC-225cb)

1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee)

Difluoromethane (HFC-32)

Ethylfluoride (HFC-161)

1,1,1,3,3,3-hexafluoropropane (HFC-236fa)

1,1, 2, 2,3-pentafluoropropane (HFC-245ca)

1,1,2,3,3-pentafluoropropane (HFC-245ea)

1,1,1,2,3-pentafluoropropane (HFC-245eb)

1,1,1,3,3-pentafluoropropane (HFC-245fa)

1,1,1,2,3,3-hexafluoropropane (HFC-236ea)

1,1,1,3,3-pentafluorobutane (HFC-365mfc)

Chlorofluoromethane (HCFC-31)

1 chloro-1-fluoroethane (HCFC-151a)

1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a)

1,1,1,2,2,3,3,4,4-nonfluoro-4-methoxy-butane (C4F9OCH3)

2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF3)2CFCF2OCH3)

1-ethoxy-1,1,2,2,3,3,4,4,4-nonfluorobutane (C4F9OC2H5)

2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF3)2CFCF2OC2H5)

1,1,1,2,2,3,3,-heptafluoro-3-methoxy-propane ($n\text{-}C_3F_7OCH_3$, HFE-7000)

3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2(trifluoromethyl)hexane (HFE-7500)

1,1,1,2,3,3,3-heptafluoropropane (HFC 227ea)

Methyl formate, ($HCOOCH_3$)

Tertiary Butyl Acetate (2-Butanone)

(1)1,1,1,2,2,3,4,5,5,5,-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE-7300)

Propylene carbonate

Dimethyl carbonate

Perfluorocarbon Compounds which fall into these classes:

--Cyclic Branched or Linear, Completely Fluorinated Alkanes

--Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations

--Cyclic, Branched, or Linear, Completely Fluorinated Tertiary amines with no unsaturations

--Sulfur containing Perfluorocarbons with no Unsaturations and with Sulfur Bonds only to Carbon and Fluorine

NONATTAINMENT AREA

An area within Colorado designated by the Commission and approved by the U.S. EPA under the Code of Federal Regulations Title 40, Section 81.306, in which ambient air concentrations of any designated pollutant exceed the National Ambient Air Quality Standards for that pollutant.

OPACITY

The degree to which an air pollutant obscures the view of an observer, expressed in percentage of obscuration or the degree (expressed in percent) to which transmittance of light is reduced by the air pollutant.

OVERLOT GRADING

Earth moving used in land development prior to the construction of structures, utilities, streets, highways or other prepared surfaces.

OWNER OR OPERATOR

Any person, who owns, leases, operates, controls, or supervises a stationary source.

OZONE DEPLETING COMPOUND

Any substance on the list of Class I and Class II ozone depleting compounds as defined by the Administrator of the U.S. EPA in the Code of Federal Regulations, Part 82 (2001) and as referenced in Section 602 of the Federal Clean Air Act (1990).

PARTICULATE MATTER

Any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than one hundred micrometers.

PARTICULATE MATTER EMISSIONS

All finely divided solid or liquid material emissions, other than uncombined water, emitted to the ambient air as measured by applicable reference methods, or an equivalent or alternative method specified by the U.S. EPA, or by a test method specified in an approved State Implementation Plan.

PERSON

Any individual, public or private corporation, partnership, association, firm, trust estate, the state or any department, institution or agency thereof, any municipal corporation, county, city and county, or other political subdivision of the state, or any other legal entity whatsoever that is recognized by law as the subject of rights and duties.

PETROLEUM

The crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

PETROLEUM DISTILLATE

A volatile organic compound or a mixture including volatile organic compounds obtained from petroleum by a process of vaporization and condensation.

PETROLEUM REFINERY

Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation, cracking, or reforming of unfinished petroleum derivatives.

PILOT PLANT

A small-scale facility first used for experimental purposes to study the feasibility of an operation prior to constructing a full-scale plant.

PM $_{10}$

Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers (µm) as measured by an U. S. EPA approved reference method.

PM 10 EMISSIONS

Finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal ten micrometers (µm) emitted to the ambient air as measured by applicable referenced methods, or an equiv alent or alternative method specified by the U.S. EPA, or by a test method specified in an approved State Implementation Plan.

POTENTIAL TO EMIT

The maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state enforceable and federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

PROCESS UNIT

A single process or piece of process equipment.

PROCESS WEIGHT

The total weight of all materials introduced into a source operation, which source causes, any discharge of air pollutants into the atmosphere. Solid fuels introduced into any specific source will be considered as part of the process weight, but liquid and gaseous fuels and combustion air, including required excess air, will not.

PROCESS WEIGHT RATE

A rate established as follows:

a. For continuous source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period; or

b. For cyclical or batch unit operations or unit processes, the total process weight for a period that covers a complete operation or an integral number of such cycles divided by the hours of actual process operation; or

c. For operations not specified above, the process weight that results in a minimum value for allowable emissions.

PUBLIC ACCESS

A site to which the general public has access because entry onto such site is allowed or not prevented by natural or man-made barriers. A site shall be deemed to not be accessible to the public if entry onto the property: (a) is prevented by natural barriers (e.g., wide rivers, cliffs, vast roadless areas); or (b) has man-made barriers (e.g., fences, frequent patrolling, watch dogs); or (c) has other measures or combinations of measures that effectively prevent entry onto the property by members of the general public. Posting of "no trespassing" signs alone shall not be deemed as preventing public access. Determination of public accessibility shall be made on a site-by-site basis.

REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT)

Technology that will achieve the maximum degree of emission control that a particular source is capable of meeting and that is reasonably available considering technological and economic feasibility. It may require technology that has been applied to similar, but not necessarily identical, source categories. It is not intended that extensive research and development be conducted before a given control technology can be applied to the source. This does not preclude requiring a short-term evaluation program to permit the application of a given technology to a particular type of source.

REASONABLE FURTHER PROGRESS

Annual incremental reductions in emissions of the applicable air pollutant (including substantial reductions in the early years following approval or promulgation of plan provisions under the Federal Act, Section 110(a)(2)(I), and regular reductions thereafter) that are sufficient in the judgment of the Commission and the U.S. EPA to provide for attainment of the applicable National Ambient Air Quality Standards by the date required in Section 172(a) of the Federal Act.

RECONSTRUCTION

Will be presumed to have taken place where the fixed capital cost of the new components exceeds fifty percent of the fixed capital cost of an entirely new stationary source. Any final decision as to whether reconstruction has occurred shall be made in accordance with the provisions in Regulation Number 6. In determining lowest achievable emission rate for a reconstructed stationary source, the provisions of Regulation Number 6 shall be taken into account in assessing whether a new source performance standard is applicable to such stationary source.

REFERENCE TEST METHOD

A method for the sampling and analysis of an air pollutant emission as designated by the U.S. EPA in the most recent edition of the Code of Federal Regulations Title 40, Part 60, Chapter 1, Appendix A, and the Code of Federal Regulations Title 40, Parts 51, 52, 61, and 63, for specific source categories and published in the Federal Register or any alternate or equivalent method approved and/or specified by the Commission or the Division and approved by the U.S. EPA.

REFINERY PROCESS UNIT

A segment of the petroleum refinery in which a specific processing operation is conducted.

REFINERY PROCESS UNIT TURNAROUND

Scheduled shutdown of a refinery process unit for the purpose of inspection or maintenance.

REID VAPOR PRESSURE (RVP)

The absolute vapor pressure of volatile crude oil and volatile non-viscous petroleum liquids except liquefied petroleum gases as determined by the appropriate American Society for Testing and Materials method.

RESIDENTIAL STRUCTURES

All buildings or other structures used primarily as a place of residence, and including both single and multi-family residential dwellings.

ROADWAYS

Roads, other than haul roads, used for motorized vehicular traffic.

RUN

The net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous.

SHUTDOWN

The cessation of operation of an air pollutant source for any purpose.

SOLID WASTE

Any waste classified as Type “zero” through Type “six” as specified by the Incinerator Institute of America.

SOURCE DEFINITIONS:

AIR POLLUTION SOURCE

Any source whatsoever at, from, or by reason of which there is emitted or discharged into the atmosphere any air pollutant.

INDIRECT SOURCE

A facility, building, structure, or installation, or any combination thereof, excluding dwellings that can reasonably be expected to cause or induce substantial mobile source activity that results in emissions of air pollutants that might reasonably be expected to interfere with the attainment and maintenance of national ambient air quality standards.

MOBILE SOURCE

Motor vehicles and other sources of air pollution that emit pollutants while moving and that are capable of moving, and that commonly do not remain at one site (one or more contiguous or adjacent properties owned or operated by the same person or by persons under common control).

STATIONARY SOURCE

Any building, structure, facility, equipment, or installation, or any combination thereof belonging to the same industrial grouping that emit or may emit any air pollutant subject to regulation under the Federal Act that is located on one or more contiguous or adjacent properties and that is owned or operated by the same person or by persons under common control. Those emissions resulting directly from an internal combustion engine for transportation purposes or from a non-road engine as defined in Section I.B.40. of this regulation shall not be considered a stationary source. Buildings, structures, facilities, equipment, and installations shall be considered to belong to the same industrial grouping if they belong to the same major groups; i.e., have the same two-digit codes, as described in the Standard Industrial Classification Manual, 1987, but not later amendments. See National Technical Information Service, Order No. PB 87-100012. The manual is available for examination at the office of the Director of the Air Pollution Control Division, Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, Colorado, 80246-1530.

STACK

A flue, conduit, or duct arranged to conduct an air pollutant to the ambient air. For the purposes of stack height requirements, flares will be excluded from the definition of stack.

STANDARD CONDITIONS

A gas temperature of 20 degrees Celsius or 68 degrees Fahrenheit and a gas pressure of one atmosphere (760 torr).

STANDARD OF PERFORMANCE

A regulation that limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements that limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.

STARTUP

Any setting in operation of an air pollutant source for any purpose.

STEEL PRODUCTION CYCLE

The operation of a basic oxygen process furnace required to produce each batch of steel and includes the following major functions: scrap charging, preheating (when used), hot metal charging, primary oxygen blowing, additional oxygen blowing (when used), and tapping.

SUBMERGED FILL PIPE

Any gasoline or petroleum distillate tank fill pipe the discharge that is entirely submerged when the liquid level is six inches above the bottom of the tank. “Submerged fill pipe” when applied to a tank that is filled from the side is defined as any fill pipe the discharge opening that is entirely submerged when the liquid level is eighteen inches above the bottom of the tank.

TERMINALS

A petroleum distillate storage and distribution facility that has an average daily throughput of more than 76,000 liters (20,000 gallons) that is loaded directly into transport vehicles.

THERMAL DRYER

A process in which the moisture content of a processed material is reduced by contact with a heated stream of air or other gases that are exhausted to the ambient air.

TOTAL SUSPENDED PARTICULATE (TSP)

Particulate matter as measured by the method described in the Code of Federal Regulations, Title 40, Part 50, Appendix B (Hi-Volume Sampler).

TRANSFER AND LOADING SYSTEM

Any equipment or processes used to transfer or load materials for storage or shipment.

UNCLASSIFIED AREA

An area within Colorado that cannot, based on available information, be classified as attainment or nonattainment.

VAPOR BALANCE SYSTEM

The connecting together of the vapor spaces of two vessels such that when liquid is dispensed from the first vessel into the second vessel, the vapor in the second vessel is displaced by the incoming liquid and forced through the connection into the first vessel. This vapor then occupies the space in the first vessel that is vacated by the dispensed liquid.

VAPOR RECOVERY SYSTEM

A vapor collection system capable of collecting substantially all the volatile vapors and gases discharged from the storage vessel and a vapor disposal system capable of processing such vapors and gases to prevent any substantial emission to the ambient air.

VOLATILE ORGANIC COMPOUND (VOC) (see also Highly Volatile Organic Compound)

Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions, except those listed in the definition of negligibly reactive volatile organic compounds included in this regulation as having negligible photochemical reactivity. Volatile organic compounds may be measured by test methods specified in Colorado's EPA-approved State Implementation Plan, a Title V Permit, a reference method, an equivalent method, an alternative method or by procedures specified under the Code of Federal regulations Title 40, Part 60, Title 40 Part 51, Subpart I or Appendix S, or Title 40, Part 52. Prior approval from the U.S. EPA is required in order to use an equivalent or alternative method. A reference method, an equivalent method or an alternative method, however, may also measure nonreactive organic compounds. In such cases, an owner or operator may exclude the compounds listed in the definition of net emission increase when determining compliance with a standard if the amount of such compound is accurately quantified and the Division approves such exclusion. As a precondition to excluding such compounds as volatile organic compounds, or at any time thereafter, the Division may require an owner or operator to provide monitoring or testing methods and results demonstrating, to the satisfaction of the Division, the amount of negligibly reactive compounds in the source's emissions. For the purposes of photochemical dispersion modeling, the non-criteria reportable NRVOC tertiary butyl acetate (also 2-butanone) shall be treated as a VOC.

WELFARE

As used in these regulations, effects on public welfare include, but are not limited to: effects on soils; water; crops; vegetation; manmade materials; animals; wildlife; weather; visibility; climate; damage to and

deterioration of property; and hazards to transportation; as well as effects on economic values and on personal comfort and well being.

WOOD RESIDUE

Bark, sawdust, slabs, chips, shavings, mill trim, and other wood products derived from wood processing and forest management operations.

II. GENERAL

II.A. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the state boundary line, such emissions shall not cause the air quality standards of the receiving state to be exceeded, provided reciprocal action is taken by the receiving state.

II.B. Emission Monitoring Requirements

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

II.C. Performance Testing

II.C.1. The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

II.C.2. Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

II.C.2.a. Specifies or approves, in specific cases, the use of a test method with minor changes in methodology;

II.C.2.b. Approves the use of an equivalent method;

II.C.2.c. Approves the use of an alternative method, the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or

II.C.2.d. Waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility complies with the standard. Nothing in this paragraph shall be construed to abrogate the Commission or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

II.C.3. Compliance test(s) shall be conducted under such conditions, as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

II.C.4. The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division

may waive the thirty-day notice requirement if arrangements satisfactory to the Division are made for earlier testing.

II.C.5. The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

II.C.5.a. Sampling ports adequate for test methods applicable to such facility;

II.C.5.b. Safe sampling platform(s);

II.C.5.c. Safe access to sampling platform(s); and

II.C.5.d. Utilities for sampling and testing equipment.

II.C.6. Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

II.C.7. Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

II.D. Ambient Air Monitoring Requirements (Reserved)

II.E. Affirmative Defense Provision for Excess Emissions During Malfunctions

II.E.1. An affirmative defense to a claim of violation under these regulations is provided to owners and operators for civil penalty actions for excess emissions during periods of malfunction. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements of Section II.E.2. in a timely manner and prove by a preponderance of evidence that:

II.E.1.a. The excess emissions were caused by a sudden, unavoidable breakdown of equipment, or a sudden, unavoidable failure of a process to operate in the normal or usual manner, beyond the reasonable control of the owner or operator;

II.E.1.b. The excess emissions did not stem from any activity or event that could have reasonably been foreseen and avoided, or planned for, and could not have been avoided by better operation and maintenance practices;

II.E.1.c. Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded.

II.E.1.d. The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

II.E.1.e. All Reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality;

II.E.1.f. All emissions monitoring systems were kept in operation (if at all possible);

II.E.1.g. The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence;

II.E.1.h. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

II.E.1.i. At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This Section II.E.1.i. is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement; and

II.E.1.J During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in the Commissions' Regulations that could be attributed to the emitting source.

II.E.2. Notification

The owner or operator of the facility experiencing excess emissions during a malfunction shall notify the Division verbally as soon as possible, but no later than noon of the Division's next working day, and shall submit written notification following the initial occurrence of the excess emissions by the end of the source's next reporting period. The notification shall address the criteria set forth in Section II.E.1., above.

II.E.3. The Affirmative Defense Provision contained in this Section II.E. shall not be available to claims for injunctive relief.

II.E.4. The Affirmative Defense Provision does not apply to failures to meet federally promulgated performance standards or emission limits, including, but not limited to, new source performance standards and national emission standards for hazardous air pollutants. The affirmative defense provision does not apply to state implementation plan (sip) limits or permit limits that have been set taking into account potential emissions during malfunctions, including, but not necessarily limited to, certain limits with 30-day or longer averaging times, limits that indicate they apply during malfunctions, and limits that indicate they apply at all times or without exception.

II.F. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission that would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

II.G. Conflicts

Nothing in these regulations is intended to permit any practice that is a violation of any statute, ordinance or regulation.

II.H. Severability Clause

If any regulation, section, clause, phrase, or standard contained in these regulations shall for any reason be held to be inoperative, unconstitutional, void, or invalid, the validity of the remaining portions thereof shall not be affected thereby and the Commission does hereby declare that it severally passed and adopted the provisions contained therein separately and apart from the other provisions thereof.

II.I. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

II.J. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

II.J.1. An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements of paragraph 2 in a timely manner and prove by a preponderance of the evidence that:

II.J.1.a. The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;

II.J.1.b. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;

II.J.1.c. If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

II.J.1.d. The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;

II.J.1.e. All possible steps were taken to minimize the impact of excess emissions on ambient air quality;

II.J.1.f. All emissions monitoring systems were kept in operation (if at all possible);

II.J.1.g. The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,

II.J.1.h. At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph h., is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

II.J.2. Notification: The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth in paragraph 1 above.

II.J.3. The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

II.J.4. The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

II.J.5. Affirmative Defense Determination: In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required in paragraph 2 of this section and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

III. RESERVED

IV. RESERVED

V. STATEMENTS OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE

V.A. December 14, 1978 - Definitions

The principal reason for revising the Common Provisions Regulation is the need for the addition of certain definitions required by the revisions of the other regulations. Opportunity was taken at the same time to revise some definitions in an effort to add clarity. Few changes were made in Section I, even though some questions were raised regarding I.D. - Intent.

Consideration was given to the suggestions of the Division and the Parties to the hearing with respect to the definitions. In some instances, the original definitions were retained; in others, they were modified. For example: (1) the original definition of “air contaminant” was retained; the Union Oil suggestion was far less precise; (2) the Public Service Company definition of “air contaminant source - new source,” replaces the original version; (3) for “steel production cycle,” the CF&I version was adopted. Generally, the Commission worked through the original definitions and the various suggestions for change and finally adopted those versions they concluded were best in terms of clarity and intent.

Considerable attention was paid to the definition of “modification” and a version selected which would encourage existing sources within the state to install new pollution control equipment even though a slight increase in emissions of sulfur dioxide would result if these increases (a) occurred in a sulfur dioxide attainment area, and (b) if the existing source sulfur dioxide standard would be met.

The notification period prior to performance testing was shortened to 30 days with the provision the Division could waive this interval if it so decided. The CF&I request for exemption of sources emitting less than 100 tons per year from performance testing was rejected in that no means would exist to detect violations of the emission standard without such testing.

Adopted: December 14, 1978

COLORADO AIR POLLUTION CONTROL COMMISSION

V.A. December 14, 1978

Rationale and Justification Addition to Common Provisions Conflict of Interest

The purpose of this regulatory addition is to set forth standards of conduct as it relates to conflict of interest in the course of operation of both the Colorado Air Pollution Control Commission and the Colorado Air Pollution Variance Board. This regulation essentially establishes in written form that which has been the practice of the Commission and the Variance Board during the course of hearings conducted by the respective bodies.

This regulation will also bring Colorado into compliance with Section 128 of the Clean Air Act, which requires that "any potential conflicts of interest by members of such board or body or the head of an executive agency with similar powers be adequately disclosed." The Clean Air Act also provides that a state may adopt requirements respecting conflicts of interest for such boards or bodies, which are more restrictive than the requirements of the Act.

The Commission believes this regulation satisfies both the requirements of the Federal Act and the State Administrative Procedures Act as well as setting forth expected standards of conduct.

Adopted: December 14, 1978

COLORADO AIR POLLUTION CONTROL COMMISSION

V.B. June 5, 1980 — Abbreviations and Definitions

RATIONALE AND JUSTIFICATION FOR THE REPEAL AND REPROMULGATION OF REGULATION NO. 3 AND COMMON PROVISIONS REGULATION AS RELATED TO REGULATION NO. 3

On December 14, 1978, the Air Quality Control Commission revised Regulation Number 3 (concerning requirements for filing air pollution emission notices, obtaining emission permits, and payment of fees with respect to both) for the primary purpose of bringing Colorado's air pollutant emission permit program into conformity with the requirements of the Federal Clean Air Act Amendments of 1977 to the extent authorized by the then effective state statutory authority: "The Air Pollution Control Act of 1970," C.R.S. 1973, 25-7-101 et seq. The regulation as revised in 1978 and which became effective January 30, 1979, was submitted to the U.S. EPA as a revision to the State Implementation Plan ("SIP") pursuant to Subsection 129(c) of the Federal Clean Air Act Amendments of 1977.

Since that submittal, the Colorado General Assembly has repealed and reenacted the state's basic air pollution control statute: Article 7 of Title 25, Colorado Revised Statutes, 1973, The new article, known as the "Colorado Air Quality Control Act" (designated House Bill 1109 in the 1979 Legislative session), became effective June 20, 1979, and largely brought the state statute into conformity with the Federal legislation, mandating the Commission to develop a comprehensive air pollution control program meeting the requirements of the Federal Clean Air Act.

The primary purpose of this current revision of Regulation Number 3 is to implement the new provisions of HB 1109 and to further bring the permit aspects of the Colorado air pollution control program into compliance with the requirements of the Federal Clean Air Act.

Revisions also respond to the requirements set forth in the October 5, 1979 Federal Register notice which conditionally approved portions of the Colorado SIP and set forth certain requirements for securing their unconditional approval. E.g., see Section IV.D.2.a.(iv) of revised Regulation Number 3 which incorporates the requirements of Section 172(b)(11)(A) of the Clean Air Act. 44 Fed. Reg. 57401, 57408 (1979).

The Commission has made an effort to formulate a permit program meeting the requirement of and paralleling of the provisions of EPA policies and rules to the extent authorized by House Bill 1109 and to the extent deemed appropriate by the Commission for Colorado's particular circumstances. This has been done in order to meet certain specific requirements expressly set forth in the Federal Clean Air Act, to meet certain specific requirements EPA has determined are required for compliance with the Federal Act, and to avoid subjecting sources of air pollution in Colorado to differing State and Federal requirements.

The Commission considered the assurance of reasonable further progress toward attainment of National Ambient Air Quality Standards as the primary underlying criterion in developing permit requirements for sources located in or near nonattainment areas.

Consideration has also been given to the opinion of the United States Court of Appeals for the District of Columbia in the case of Alabama Power Company v. Costle _____ F.2d _____ D.C. Cir., (1979).

APENs

In order to reduce the administrative burden on both the Air Pollution Control Division ("the Division") and owners and operators of air pollution sources, the filing of revised air pollution emission notices for the purpose of reporting significant changes in emissions will be required only on an annual basis, rather than whenever a significant change in emissions occurs. In making this revision, the Commission relied on the representations of the Division that annual reporting would be sufficient for purposes of keeping the emissions inventory current.

Street Sanding

With the exception of street sanding (and indirect sources), the exemptions provided in the revised regulation from the APEN-filing and emission permit requirements are for minor or insignificant sources of emissions.

Although not finding that particulate emissions resulting from the application and reentrainment of "sand" applied to snow or ice covered roadways as a traffic safety measure are insignificant, the Commission has exempted sanding from the APEN-filing and permit requirements out of administrative necessity.

Little benefit can be obtained from the filing of APENs in light of the fact that the amount of emissions cannot be predicted with any reasonable accuracy due to varying factors such as weather. APENs would therefore serve little purpose as notices of expected emissions.

It is the judgment of the Commission that protection of persons and property by sanding snow and ice covered roadways is an overriding consideration and that the costs of not taking such safety measures would far outweigh any air quality benefits resulting from requiring permits for sanding. Sanding should not therefore be prohibited — even without a permit. The only reason for imposing a permit requirement would be to facilitate enforcement of control measures to limit emissions which the Commission believes may be accomplished without a permit requirement through emission control regulations and provisions in local elements of the State Implementation Plan.

Major Sources, Major Modifications, and the "Bubble" Concept

The Commission has retained requirements that new "major sources" locating in nonattainment areas and "major modifications" to existing sources in nonattainment areas meet special requirements (Offsets, LAER, etc.) designed to allow the continued development in such areas without interfering with reasonable further progress toward attainment of National Ambient Air Quality Standards. The criteria for determining when a new source or modification to an existing source is "major" however, have been extensively revised.

Prior to the U.S. Court of Appeals Decision in Alabama Power Company v. Costle , EPA had defined "potential to emit" — a key phrase in the definition of "major emitting facility" — in terms of uncontrolled emissions. The court however, interpreted the phrase "potential to emit" as used in the definition of "major emitting facility" in Section 169(1) of the Clean Air Act as taking "into account the anticipated functioning of the air pollution control equipment designed into the facility," thereby drastically reducing the number of sources qualifying as major. In response to this decision, on September 5, 1979, EPA proposed amendments to its regulations concerning requirements for SIPs including those pertaining to

Prevention of Significant Deterioration of air quality ("PSD") and new source review in nonattainment areas, as well as EPA's Emission Offset Interpretative Ruling. 44 Fed. Reg. 51924 (1979). The Commission in reviewing Regulation Number 3 and the Common Provisions Regulation has incorporated many of the amendments adopted by EPA in its regulations including classifications of sources as major or minor based on controlled emissions.

The court in Alabama Power Company struck down the EPA regulation definition of "major modification" which definition required the imposition of the special nonattainment area requirements (Offsets, LAER, etc.) on sources when modifications resulted in an increase in emissions of criteria pollutants of 100 tons per year or more (for certain listed categories of sources; 250 tons or more for sources not listed). The court held that the special nonattainment requirements applied to all modifications of major emitting facilities except those resulting in only - "de minimus" increases in emissions. The court stated, however, that it would be permissible to look at the net increase in potential emissions from a major source in determining whether Offsets, LAER, etc., will be required.

In its proposed rules, EPA has adopted the "net increase" or "bubble" approach which generally allows a major source undergoing modification to avoid permit review as a major modification by allowing emission reductions elsewhere at the source to offset any increases resulting from the proposed modification. The Commission has adopted the "bubble" concept and many of EPA's specific regulatory provisions with respect to the concept as applied to modifications.

The court in Alabama Power Company also held that fugitive emissions could be included in determining whether a source is "major" only to the extent such emissions were expressly determined to be included by rule of the EPA administrator. In response, EPA has proposed a regulatory definition of "potential to emit" by which fugitive emissions from twenty-seven (27) listed sources would be included in determinations of which new sources and modifications are major. 44 Fed. Reg. 51956, 51958 (1979). In recognition of the fact that such emissions would be included in a determination of whether a source or modification was major if they were emitted through a stack (as opposed to being "fugitive"), recognizing that generally emissions from the twenty-seven (27) listed source categories contribute to hazards to public health and welfare, and to be consistent with the Federal scheme, the Commission has also decided to consider fugitive emissions from the twenty-seven source categories in major source/major modification determinations to the extent they are quantifiable. An owner or operator may avoid the inclusion of fugitive emissions of particulate matter by demonstrating that such emissions are of a size and substance, which do not adversely affect public health or welfare.

Banking

C.R.S. 1973, 25-7-304 requires the attainment program to provide that emission reduction offsets exceeding those required for the granting of a permit "may be preserved for sale or use in the future." Section V. of Regulation Number 3 establishes an administrative framework and the basic requirements for such a procedure consistent with the "banking" provisions established by EPA in its Emission Offset interpretative ruling, 44 Fed Reg. 3274, 3280, 3285 (January 16, 1979) (to be codified as Appendix S to 40 C.R.S. Part 51).

Extended "Debugging" Period.

Pursuant to C.R.S. 1973, 25-7-114(4)(j), the Division may grant the owner or operator of a new source up to six months after commencement of operation in which to demonstrate compliance with all terms and conditions of its emission permit. The Commission determined, however, that under certain circumstances it would be appropriate to allow a source employing innovative control technology additional time in which to bring the operation of the source into full compliance. Therefore, pursuant to its authority under C.R.S. 1973, 25-7-109(5), the Commission has provided in paragraph IV.H.6. of Regulation Number 3 for such temporary relief from controls under specified limited circumstances. The provision is intended for very limited application.

PSD

Regulation Number 3 does not address the subject of special permits for major sources locating in attainment areas to insure Prevention of Significant Deterioration of air quality. The Commission decided to wait until EPA's PSD regulations have been finalized before attempting to promulgate State regulations to establish a fully State-operated program. State emission permits are nonetheless still required for sources locating in attainment areas.

Common Provisions Regulation

In connection with the revision of Regulation Number 3, the Commission concurrently made limited, related revisions in its Common Provisions Regulation. Sections I.B. and I.C. of that regulation have been changed to reflect the renumbering of the sections in the State statute authorizing the Commission to promulgate regulations and to reflect the amended language in the declaration of legislative intent.

Section I.F. of the regulation was amended to add new abbreviations used in revised Regulation Number 3 and Section I.G. (definitions) was amended to delete, revise, and add terms and their definitions to reflect changes in the terminology used in Regulation Number 3.

ADOPTED: June 5, 1980

COLORADO AIR QUALITY CONTROL COMMISSION

V.C. May 13, 1982 - Public Comment

STATEMENT OF BASIS AND PURPOSE CONCERNING MAY 13, 1982 AMENDMENT TO SECTION IV.C. (PUBLIC COMMENT) FOR SMALL SOURCES LOCATING IN NONATTAINMENT AREAS

The rationale for this proposed revision is based on the underlying purpose of public comment: to obtain public input on proposed sources that the Air Pollution Control Division (APCD) can use in considering whether a permit should be granted.

Under the previous regulation, all sources locating in nonattainment areas were subject to the public comment requirement unless the APCD exercised its discretion under Section IV.C.3. (sources of less than 6 month's duration) to exempt them. APCD experience has shown that there are four categories of small sources that frequently locate in nonattainment areas, but which did not stimulate comment from the public. These categories are: (1) service stations; (2) restaurants; (3) land development (houses and commercial); and (4) other small sources (such as concrete batch plants). Basically, all the effort put into preparation of public comment packages for these sources can now be used more efficiently and the associated expense to industry saved.

The limit of 5 Tons Per Year (TPY) of controlled annual emissions is based on calculations that show most of the sources in these four categories emit less than 5 TPY of any one pollutant. Service stations, for example, generally emit 1 to 2 TPY. In many cases, less than 1 TPY is emitted.

Under the revised regulation, sources less than 5 TPY can still be subject to public comment if the Division determines it appropriate based on criteria set forth in the regulation. The difference is that the APCD would have discretion to decide instead of being required to provide public notice. Controversial sources such as gravel pits, odor sources and landfill operations are subjected to public comment by the APCD regardless of the level of emissions. This practice will continue in effect.

Adopted: May 13, 1982

Colorado Air Quality Control Commission.

V.D. March 10, 1983 - Prevention of Significant Deterioration

STATEMENT OF BASIS AND PURPOSE FOR THE PREVENTION OF SIGNIFICANT DETERIORATION PROGRAM REGULATIONS

Adopted March 10, 1983

This Statement of Basis and Purpose for the Prevention of Significant Deterioration (PSD) Program Regulations complies with the State Administrative Procedure Act, CRS 1973, 24-4-103(4). The statutory authority for the PSD regulations are in the Air Quality Control Act at CRS 1973, 25-7-102, 25-7-105, 25-7-106, 25-7-108, 25-7-109, 25-7-114, 25-7-116, 25-7-201 et seq. The general purpose of these regulations is to prevent the significant deterioration of air quality in those sections of the state, which has attained the national ambient air quality standards. The parties to this rulemaking include:

> Colorado Association of Commerce and Industry; Rocky Mountain Oil amp; Gas Association, Inc.; Chevron Shale Oil Company; Union Oil Company of California; Colorado Ute Electric Association, Inc.; The Colorado Mountain Club; COAL; Public Service Company of Colorado; City of Colorado Springs; CF&I Steel; Environmental Defense Fund, Inc.; United States Department of the Interior; and United States Department of Agriculture.

The Air Pollution Control Division acted as staff for and advised the Commission during the proceeding. See CRS 1973, 25-7-111(2)(g).

The PSD regulations adopted by the Commission are in many respects identical to the U.S. EPA PSD regulations. See 40 CFR 51.24 et seq. ; 40 CFR 52.21 et seq. The primary reason for this is that the State Act requires that the State PSD program be in accordance with the federal Clean Air Act PSD provisions. See CRS 1973, 25-7-203. Thus, federal PSD requirements are generally a minimum for the State PSD Program. For these reasons, to the extent that the federal PSD rules are identical or substantially identical to the state regulations, the Commission incorporates herein the EPA statements of basis and purpose for the federal PSD rules at 43 Fed. Reg. 26380 et seq. (June 19, 1978) and 45 Fed. Reg. 52676 et seq. (August 7, 1980).

The Commission has additional authorities to prevent significant deterioration of air quality. In several important areas the Commission has tailored these regulations to meet the concerns of Colorado citizens. These areas include the requirement for an impact analysis on water to determine acid deposition effects, the authority to make independent determinations on adverse impact to visibility in Class I areas if the federal land manager fails to fulfill his responsibility to do so, the requirement to establish baselines for, and to monitor air quality related values in, Class I areas to determine the effects of emissions on such values, and the application of Class I sulfur dioxide increments to several Class II primitive areas and national monuments.

The proposed PSD regulations included several provisions reflecting the terms of a settlement agreement in the matter of Chemical Manufacturer's Association, et al. v. EPA in which EPA has agreed to propose amendments to its PSD rules. The Commission has rejected the adoption of such provisions for several reasons. They are arguably less stringent than current EPA rules in that they would appear to permit more air pollution. Because they may be less stringent, their adoption appeared likely on the basis of EPA testimony to impede the approval of the state PSD program by EPA at this time. Finally, EPA's schedule for consideration of such provisions is unknown. Subsequent to EPA action on the provisions of the settlement agreement, the Commission will reconsider those provisions.

The PSD regulations will generally not become applicable to major sources or major modifications in Colorado until EPA has approved them. See CRS 1973, 25-7-210. However, the regulations pertaining to attainment area designations and the enforcement of Class I sulfur dioxide increments in those areas listed in CRS 1973, 25-7-209 will be applicable upon the effective date of these regulations. These regulations will be effective twenty (20) days from publication in the Colorado Register .

DEFINITION OF “ACTUAL EMISSIONS”

The definition adopted is essentially identical to the EPA definition.

One party proposed that reference should be made to consideration of control efficiency. The Commission did not adopt this proposal because the definition inferentially considers control equipment efficiency and the reference requested would create confusion, when actual test data were available, as to whether a separate "efficiency" factor was to be applied.

Another party, in commenting on the definition of "baseline concentration," expressed concern that the determination of "actual emissions" could take place, for example, during a low-demand period for a power plant. Such determination would result in an emission rate considerably less than the full-capacity allowable emission rate, resulting in a low baseline concentration. The power plant, operating the next year at full capacity, could consume all or most of the available increment, prohibiting growth in the area. The Commission recognizes that, for certain sources such as power plants (i.e., fossil fuel-fired steam generators), the source must respond to constantly changing demands with significant changes in emissions from year to year. Therefore, for fossil fuel-fired steam generators, "allowable emissions" should generally be considered "representative of normal unit operation" rather than actual emissions in determinations of "actual emissions" for determining baseline concentration and increment consumption, unless it is clearly demonstrated that a lower level of emissions will never be exceeded.

DEFINITION OF "BASELINE AREA" AND "BASELINE DATE"

"Baseline area" is not specifically defined in the State Act but is simply referred to as "an area subject to this article" in the definition of baseline concentration. CRS 1973, 25-7-202. The Federal Clean Air Act definition of "baseline concentration," Section 169(4), is identical to the states, and EPA has interpreted" an area subject to this article" to mean the attainment and unclassifiable areas designated pursuant to Section 107(d)(1)(D) or (E) of the Federal Clean Air Act. Such an interpretation is also reasonable under the Colorado Air Quality Control Act which states that the Commission shall adopt measures "to prevent significant deterioration of ambient air quality in each region, or portion thereof, of the state identified pursuant to Section 107(d)(1)(D) or (E) of the Federal Act." The result of EPA's definition is that the entire state is the baseline area for SO_2 , and air quality control regions for particulate matter.

Several parties proposed alternative approaches to the definition of baseline area. These approaches ranged from a modeled 1 $\mu g/m^3$ impact area (based on 7.5 minute quadrangles, the county-township-range-section system, or a metric grid) to the entire state.

The Commission adopted the EPA definition for the following reasons:

(1) The EPA approach has been in effect for several years and has proven workable. EPA has well-developed procedures for performing source impact analyses in large baseline areas which the state can use. Changing the definition of baseline area would result in use of an approach that has not been proven and that would cause a discontinuity for the regulated industries when the PSD program is delegated to the state.

(2) The use of areas larger than the source impact area means that baseline concentrations will be determined at an earlier date, and increments will be consumed from an earlier date, thus minimizing air quality deterioration. This fulfills the primary purpose of the State Act. See CRS 1973, 25-7-102.

Certain parties were concerned that baseline areas larger than the impact area might unnecessarily inhibit economic growth in the unaffected portion of the baseline area, but should that occur, and there are no specific examples in the record of where that would occur, the Commission could consider subdividing baseline areas to allow for a new baseline date and concentration.

Testimony from Pitkin County and members of the general public indicated concern that with small baseline areas, minor source emission increases would continue to raise the background ambient air concentrations, especially for particulate matter, before a major source would locate in an area to begin the counting of increment consumption. The baseline areas selected by the Commission for particulate matter represent a balance between a recognition that particulate matter emissions are often a more localized problem than are gaseous emissions (hence the use of AQCRs for particulate matter instead of the entire state, as is the approach for SO2) and the need to begin counting increment consumption expeditiously (hence, the use of AQCRs for particulate matter rather than the smaller impact area). Only two AQCRs in Colorado have been triggered during the six years PSD has been in effect. Since triggered baseline areas can in the future be subdivided into triggered and untriggered areas, the Commission considers the use of baseline areas the size of AQCRs sufficiently flexible for purposes of reasonable application, economic growth, and prevention of air quality deterioration.

(3) Use of a baseline area equivalent to the 1 $\mu g/m^3$ impact area could result in a situation where impacts on a Class I area individually were each less than 1 $\mu g/m^3$, with the result that the Class I area would not be a part of a baseline area. Yet the cumulative impact of these sources could be greater than the 1 $\mu g/m^3$ increment for particulate matter for Class I areas, so that deterioration of air quality greater than that allowed by the regulation could legally occur.

(4) The use of the entire state as an SO_2 baseline area provides maximum protection for all Class I areas in the state. This is of particular concern to the Commission, since the general flow of air from west to east and the long-range transport of gaseous pollutants can result in effects on nearly all of Colorado's Class I areas by SO_2 sources on the West Slope. The effects and extent of acid deposition, to which SO_2 is a major contributor, was a topic of extensive testimony at the hearings; the definition of the entire state as a baseline area for SO_2 affords maximum protection of the environment while the problem of acid deposition receives additional study.

DEFINITION OF "BASELINE CONCENTRATION"

Two parties proposed changes to this definition, both suggesting the substitution of "allowable" for "actual" emissions in portions of the definition. The concern regarding power plant actual versus allowable emissions is discussed under "Actual Emissions," above.

The other concern arises from the possibility of a large difference between actual and allowable emissions in the calculation of increment consumption or in establishing baseline concentrations. This is discussed extensively in the EPA preamble to the August 7, 1980 PSD regulations (Division Exhibit B, pp. 74-76) concerning increment consumption. EPA's rationale is that actual emissions more reasonably represent actual air quality than allowable emissions and that because actual emissions are based on at least two years of operation, future emissions could be reasonably expected to remain at the same level. EPA therefore uses actual emissions to avoid "paper consumption" of increment (or modeled baseline concentrations which would exceed monitored levels) The Commission concurs with the EPA rationale and has adopted the EPA approach of using actual emissions to track increment consumption and determine baseline concentrations.

DEFINITION OF "COMPLETE"

The Environmental Defense Fund (EDF) proposed a list of specific elements of a PSD permit application, for aid in determining whether an application is "complete," which was generally incorporated in the final rule. The proposed list of items would add some certainty and clarification for the applicant and the Division of the specific items required to demonstrate completeness of an application. Regarding items (i) and (iii)-(iv), opposition to the list by several parties was primarily that it was redundant with other requirements of the rules. York, Nov. 10 Tr. at 18 et seq. and 60 et seq. Item (ii) was retained because, for many or most applications, such information would be necessary to verify the applicant's modeling.

DEFINITION OF "NET EMISSIONS INCREASE"

Several parties proposed crediting increases or decreases in emissions that occur up to five years after a modification becomes operational. The Commission did not adopt this recommendation because EPA specifically prohibits states from crediting decreases, which would occur after the change occurs. 40 CFR 51.24(b)(3). In addition, it would prove difficult to exact an enforceable agreement for a source to close down or otherwise decrease emissions at some future date.

Several parties proposed in paragraph f(ii) to shift "enforceable" from time of construction to time of operation. This change would not be consistent with the state statutory requirements, which prohibit construction or operation of a non-permitted new source or modification. The suggested change would also needlessly complicate the correlation of permits to enforceable decreases in emissions.

In response to a party comment that 90 days to report a reduction in emissions is too short, the Commission agreed and has allowed such reports to be made within a year of the decrease unless an extension is granted. A longer time would make the reduction difficult to verify.

DEFINITION OF "SECONDARY EMISSIONS"

The final definition incorporates a recent amendment by EPA, 47 Fed. Reg. 27554 (June 25, 1982) and is consistent with CRS 1973, 25-7-202(6.5).

DEFINITION OF "ALLOWABLE EMISSIONS"

In several sections of EPA's PSD rules, including its definition of "allowable emissions," EPA grants credit for permit conditions only if they are "federally enforceable." In each of such sections, the Commission has deleted the qualification of "federally" and has in the Common Provisions Regulation defined "enforceable" so that it is consistent with EPA's definition of "federally enforceable."

DEFINITION OF "SIGNIFICANT"

Several parties commented that the proposed definition, which defined both "significant" and "significantly" and included a listing of "significant concentrations," was confusing and unnecessary. The proposed definition also gave the Division the discretion to (1) determine that certain sources were not significant even if the source met the definition, and (2) to determine significance levels for non-listed pollutants. In addition, it limited the definition for sources affecting Class I areas to those sources producing a "significant" impact. There were several sections in the proposed regulations that used the "significant" definition of ambient concentrations to allow impacts to Class I areas not allowed under EPA rules. EPA and the National Park Service commented that these changes resulted in a less stringent definition. The Commission agreed with these comments. The final definition is essentially identical to EPA's and uses only emission rates to define "significant," and the use of "significant" to qualify impacts to Class I areas in other sections of the rules has been deleted.

DEFINITION OF "MODIFICATION"

One party proposed that an existing exception for increases in SO_2 emissions caused by adding new emission control equipment (e.g., replacing scrubbers with fabric filters) be retained. The Commission acknowledges that this exemption was intended to avoid penalizing a source willing to improve particulate matter collection by converting from scrubbers to baghouses or electrostatic precipitators. Since scrubbers collect gaseous pollutants, but baghouses and precipitators do not, the amount of SO_2 emitted would increase, hence the exemption. Since there are a number of nonattainment areas for particulate matter, but none for SO_2, the Commission will continue to encourage additional control of particulate matter by including this exemption in the definition of "modification."

It should, however, be noted that this exemption is not included in the definition of "major modification," so a significant increase in SO_2 emissions from a major source will result in PSD applicability. The effect of this is to provide the exemption only for minor sources and minor modifications.

DEFINITION OF "STATIONARY SOURCE"

The proposed definition was revised to include language essentially identical to that of EPA at 40 CFR 51.24(b)(5) and (b)(6). The final rule allows more discretion to define stationary source on a case-by-case basis. The definition clarifies that a source in a nonattainment area may also be "an identifiable piece of process equipment" which makes it consistent with a recent federal case. See Natural Resources Defense Council et al. v. Gorsuch , et al. , 685 F.2d 718 (D.C. Cir. 1982).

DEFINITION OF "FUGITIVE DUST"

The State Act exempts "fugitive dust" from regulation under the PSD program, including exemption from determinations of whether a source or modification is major and of increment consumption. C.R.S. 1973, 25-7-202(4), -202(5), -204(1)(b), and -204(2)(c). "Fugitive Dust" is defined as:

> Soil or other airborne particulate matter (excluding particulates produced directly during combustion) resulting from natural forces or from surface use or disturbance, including, but not limited to, all dust from wind erosion of exposed surfaces or storage piles and from agriculture, construction, forestry, unpaved roads, mining, exploration, or similar activities in which earth is either moved, stored, transported, or redistributed; except that fugitive dust shall not include any fraction of such soil or other airborne particulate matter which is of a size or substance to adversely affect public health or welfare.

C.R.S. 1973, 25-7-202(3). Under such definition, fugitive particulates are regulated in the PSD program if they are "of a size or substance to adversely affect public health or welfare."

The exemption of "fugitive dust" is an issue because EPA counts total suspended particulates ("TSP") in determining increment consumption, maintenance of primary and secondary NAAQS, and source applicability. Therefore, to the extent that the state excludes some sizes of particulate matter in these determinations, its regulations are arguably less stringent than EPA's, although as explained below, because of depositional effects, there is generally an insignificant difference between the counting of TSP and the counting of smaller particulates.

The basis for setting the primary NAAQS is health effects; the basis for setting the secondary NAAQS is welfare effects. These are also the bases under the State Act for counting fugitive particulates in the PSD program. Because the bases for the State's inclusion of fugitive particulates and for EPA's promulgation of particulate matter NAAQS are essentially identical, it is appropriate to consider whether the NAAQS should be the standard for determining which particulates are "of a size or substance to adversely affect public health or welfare." However, EPA's current primary and secondary NAAQS for particulates are based on the "Air Quality Criteria for Particulate Matter" (1969), Div. Ex. R., which has generally been superseded by more recent research and analysis. For that reason, EPA in the CMA v. EPA Settlement Agreement has agreed in the near future to promulgate new primary, and perhaps secondary, NAAQS for particulates which would exclude particulates above a size posing no health or welfare risks.

EPA's staff review, in anticipation of revisions to the particulate matter definition and NAAQS, of the effects of particulate matter on health concludes that the size counted should be less than 10 um, which includes those particles capable of penetrating the thoracic regions. "Review of the National Ambient Air Quality Standards for Particulate Matter: Assessment of Scientific and Technical Information," EPA 450/5-82-001 (January 1982).

EPA staff review of welfare impacts indicates that visibility impacts are generally caused by fine particulates of less than 2.5 um. Id. at 122. However, such review recognizes that "the full size range of

particles including dustfall can contribute to soiling, become a nuisance and result in increased cost and decreased enjoyment of the environment." Id. at 140. Further, the EPA "staff recommends consideration of the economic and other effects associated with soiling and nuisance when determining whether a secondary standard for TP or for TSP or other large particle indicator is desirable," id. at 141, and that "the basis for selecting a particular level for a secondary TP or TSP standard is a matter of judgment ." (emphasis added) Id. at 147. The EPA staff review indicates that EPA will probably propose a fine particulate secondary standard but is undecided as to whether to establish a TSP or large particulate secondary standard, and that there is a basis for concluding that welfare impacts are being caused by all sizes of particulates. Additionally, there was public and party testimony on welfare effects from fugitive particulates, some of which can be assumed to be large particles. See Markey, November 10 Tr. at 2 et seq.

One of the apparent concerns of parties and persons opposing the use by the Commission of TSP as a welfare standard is that the increment would be consumed and that no further development could occur. Division Exhibit W, which compares the modeled ambient impacts of TSP using a deposition model with particulates of 10 um or less using the same model, shows that the larger particles deposit quickly and that the ambient impact is relatively the same at a distance of 1000 meters or greater. The implication of this is that for many sources the modeling of increment consumption would have the same general results whether TSP is counted or whether only particles 10 um or less are counted (assuming the boundary of the source is 1000 meters or farther from the emissions point). Another implication is that welfare impacts from large particulates can only result within relatively short distances of a source.

Another concern was that the legislative intent was not to count TSP, although there was not clear evidence of legislative intent presented to the Commission. In any event, statutory language leaves the determination to the Commission to decide what particulates are of a size or substance to adversely affect health or welfare.

Given the foregoing considerations and the Commission's general interest in interpreting health and welfare effects of particulates consistent with EPA, but also given the uncertainty surrounding the revision of the particulate NAAQS by EPA, the Commission determines that in applying the definition of "fugitive dust" , the adverse effects on health or welfare of fugitive particulate emissions should be determined individually for each source. Adverse welfare effects of nuisance and soiling will be presumed to occur if the source would have offsite, ambient, particulate impacts unless the permit applicant rebuts such presumption with clear and convincing evidence. The result of this presumption will be that in most cases, large particulates will be counted and there will be no difference between EPA's treatment of particulates and the state's. Other health and welfare effects shall generally be evaluated based on EPA's most recent research and analysis, but the permit applicant shall have the burden of proof of demonstrating with clear and convincing evidence that, if any, sizes or substances of fugitive particulates do not adversely affect health or welfare. This presumption of health and welfare effects has been incorporated in the definitions of "major stationary source" and "major modification," Section XI.A.4 on Exclusions from Increment Consumption, and Section V.D.3.c.(i)(B).

Upon EPA's adoption of revised NAAQS for particulates, the Commission may consider whether to revise this Statement of Basis and Purpose or the definition of "fugitive dust" to reflect such revisions. Should EPA decide not to have a secondary NAAQS incorporating nuisance and soiling (welfare) impacts of large particulates, the Commission will consider whether the welfare effects of large particulates are significant enough to be included, or whether they are relatively insignificant and, thus, should not be counted in the state PSD Program.

DEFINITION OF "MAJOR SOURCE" AND "MAJOR MODIFICATION"

The State Act permits the counting of fugitive emissions in determining whether a source or modification is major "only if the Commission adopts regulations to include fugitive emissions for that source category." CRS 1973, 25-7-202(4) and (5). The Federal Clean Air Act has a similar requirement at Sec. 302(j). EPA has interpreted the rulemaking requirement to mean simply a consideration in rulemaking of whether fugitive emissions should be counted and a requirement that affected industries be allowed to present

policy or factual reasons why fugitive emissions should not be counted. 45 Fed. Reg. 52676 (August 7, 1980). Based on this rationale, EPA's rules currently list 26 categories of sources for which fugitive emissions are counted. A similar interpretation of the State Act is reasonable and has been adopted by the Commission.

One party recommended the addition of uranium mills and coalmines to the list of sources for which fugitive emissions would be counted. However, those sources could not be considered in this proceeding due to inadequate public notice. The Commission intends to consider those sources for listing as soon as practicable.

In the CMA v. EPA Settlement Agreement, the EPA has agreed to remove these 26 listed sources on the basis of industry's argument that the rulemaking requirement means that EPA must identify reasonable methods for measuring and modeling fugitive emissions from a category of sources. Although not agreeing that this is legally required under state or Federal law, the Commission has determined that Division Exhibit F, primarily, makes that demonstration for the ten categories located or expected to locate in Colorado.

It should be noted that measurement methods are not only available, but have been in use for a number of years and have provided test results that are the basis for the fugitive emission factors used by EPA and other control agencies, including the Colorado Air Pollution Control Division.

The following important parallels between stack emission factors and fugitive emission factors support the conclusion that fugitive emission factors are relatively as reliable and as reasonably available as stack emission factors:

- Both are based on numerous test data at different locations on different equipment or operations.

- Both are influenced by many variables (e.g., for a stack, flow rate, temperature, process variations; for a fugitive plume, wind speed, moisture content of the material, size distribution of the material).

- Neither is intended to represent actual emissions from a specific source. Actual acceptable test data for a specific or similar source would always be used in lieu of an emission factor.

- Both are intended as air management tools to allow pre-construction assessment of a source impact or as a representative value to average total emissions from a number of similar sources (e.g., all waste incinerators, commercial boilers, or coal storage piles) for such air quality management purposes as determining “reasonable further progress” in nonattainment areas.

Stack and fugitive emission factors are both estimates; such factors are nevertheless widely used by control agencies and applicants alike. However, control agencies generally have no objection to, and would prefer, actual test data in lieu of factors whenever such information is submitted. (See Testimony of McCutchen, October 28, 1982; Egley, November 18, 1982, pp. 72-75 and p. 99; Bertolin, October 29, (am), p.39.)

One party's concern involved whether the emission factors for a facility can be extrapolated to a larger facility, specifically, from a 7000 ton per day oil shale processing facility to a 50,000 ton per day facility. Scale-up is a widely used and accepted approach throughout industry for estimating the feasibility of larger-scale facilities from results at smaller-scale facilities. There are a number of well-known precautions that should always be considered when extrapolating, and a control agency should be at least as cautious in extrapolating emission levels as the applicant is in extrapolating process data. Of course, if different equipment, such as a retort, is to be used at a proposed facility, an emission estimate would be based on mining and handling practices and on different processing equipment emission factors

(e.g., refinery emission factors) which are similar to oil shale processing activities where such would be more accurate than extrapolation. Therefore, either through extrapolation or through the application of other more applicable and available emissions factors, relatively accurate emissions levels from all types of oil shale facilities can be calculated.

The same modeling techniques used to model stack emissions can be and are used to model fugitive emissions. Division Appendix F. One modeling parameter, deposition, is more critical in modeling fugitive particulate emissions and should be carefully evaluated. Fugitive particulate emissions usually contain more large particles than do controlled stack emissions. These large particles generally settle out rapidly, so that the impact at a plant boundary is usually much less than would be anticipated by the quantity of emissions at the source. See “Fugitive Dust.” However, acceptable models exist which incorporate deposition and thereby provide a reasonably accurate assessment of fugitive particulate emission impact. Models without deposition can be used for gaseous and fine particulate fugitive emissions. Models have recognized limitations, but they are as accurate for fugitive emissions as for stack emissions.

The following information, which is primarily from Division Exhibit F, concerns the major policy and factual reasons for counting fugitive emissions from each of ten source categories:

Coal Cleaning . A typical plant would process 10,000 tons per year (TPY) of coal and emit approximately 280 TPY of particulate matter, 96% of which would be fugitive emissions. Over 100 TPY of the fugitive emissions are less than 15 microns in diameter and are considered inhalable particulate (IP).

Portland Cement . The typical plant produces 500,000 TPY of cement and emits approximately 370 TPY of particulate matter, 60% of which would be fugitive emissions.

Iron amp; Steel Mills (Including Coke Ovens) . A typical plant would produce several million tons of steel per year and emit approximately 3,600 TPY of particulate matter, 64% of which would be fugitive emissions. The coke plant would produce over half a million tons of coke per year and emit approximately 700 TPY of particulate matter, 10% of which would be fugitive emissions, and 1,500 TPY of uncontrolled fugitive hydrocarbon emissions.

Petroleum Refineries . A typical plant would process 25,000 barrels of oil per day and emit approximately 1,100 TPY of hydrocarbons, 57% of which would be fugitive emissions.

Lime Plants . A typical plant would produce 300,000 TPY of lime and emit approximately 1,800 TPY of particulate matter, 33% of which would be fugitive emissions.

Fuel Conversion . A typical shale oil plant would produce 50,000 barrels per day of oil and emit 4,800 TPY of particulate matter, 12% (500 TPY) of which would be fugitive emissions, and 8,611 TPY of hydrocarbons, 12% (1,080 TPY) of which would be fugitive emissions.

Sintering Plants . A typical plant would emit approximately 400 TPY of particulate matter, 20% (80 TPY) of which would be fugitive emissions.

Power Plants and Boilers . A typical, but well-controlled, new 500 MW power plant burns 2.1 million TPY of coal and emits approximately 620 TPY of particulate matter, 18% (110 TPY) of which would be fugitive emissions. These fugitive emissions are from coal handling and storage, among the most visible and complaint-related of all fugitive emission sources.

Petroleum Transfer and Storage . A typical plant has a capacity of 476,000 barrels and an annual throughput of 7,123,000 barrels per year and emits 267 TPY of hydrocarbons, 72% of which are fugitive emissions.

In conclusion, the Commission has determined that fugitive emissions from the above sources should be included in determining whether the source or modification is major for the following general reasons:

(a) Fugitive emissions consist of the same pollutants that are emitted through stacks and regulated as stack emissions;

(b) The quantity of fugitive emissions, both in absolute and in relative terms, is significant; and

(c) Although this finding is not legally required, there are methods reasonably available for measuring and modeling fugitive emissions.

PUBLIC COMMENT AND HEARING REQUIREMENTS

The Commission has adopted a regulation designed to offer maximum opportunity for any interested person to learn about, and become involved in, the PSD permit review process. Adopted in the final rule are proposals by one party that (a) the public notice be printed not only in a newspaper of local distribution, but also in one of state-wide distribution to increase the number of potential interested persons reached by the notice, (b) that the public hearing be held at least 60 days after the Federal Land Manager (FLM) has received the notice and permit application, to allow the FLM adequate response time, and (c) that any interested person receive notice of public hearing. In addition, the Commission agrees with the Division proposal to implement and maintain an "interested party" mailing list as described in Division Exhibit M.

The proposed rule contained a requirement that the Division notify the county Commissioners in affected counties when a proposed source would consume 50 percent or more of the remaining PSD increment. Two parties proposed that this requirement be deleted as allowing local land use decision-makers to unduly influence air permit decisions. The intent of this requirement, which has been modified to notify county Commissioners of any PSD permit applications, is not to provide opportunity for counties to comment to the Division on land use; rather, it is to provide information to the counties on proposed sources so that the counties can more adequately assess their priorities and needs. PSD permit approval or denial is to be based solely on the criteria specified in this regulation; land use decisions are, and will remain, the responsibility of local governments.

Regarding the issue of land use decisions, one party commented that Section IV.C.4.e(iii) of this final rule, which solicits comments from interested parties on alternatives to a proposed PSD source or modification, constitutes the inclusion of land use factors in permit approval determinations. The Commission did not remove this section because it is required by the State Act, CRS 1973, 25-7-114(4)(f)(1)(B). Furthermore, the intent of soliciting such alternatives is for the assessment of alternatives with respect to control technology and source impact, not land use.

CONTROL TECHNOLOGY REVIEW

One party proposed that the last sentence in Section IV.D.3.a.(i)(C), which requires the owner or operator of a phased project to demonstrate the adequacy of a previous best available control technology (BACT) determination, be deleted. The Commission did not delete this sentence because (1) an EPA regulation requires such a condition and deletion of this requirement could be considered less stringent, and (2) the requirement is intended to provide for the possibility of a different BACT determination if new technology has developed between the time of permit review and the next phase of a project for which construction has not yet commenced, a time period which can easily exceed five years on large projects.

POST-CONSTRUCTION MONITORING

Five parties proposed that post-construction monitoring requirements be limited to a maximum of one year. The Commission recognizes the concern of lessening the burdens on owners or operators, particularly if the information being gathered is unnecessary. However, in many cases, there can be a very real need for monitoring for periods of time greater than a year to obtain reliable data. Accordingly, the final rule requires post-construction ambient monitoring for a period up to one year; additional ambient monitoring can be required only if it is necessary to determine the effect of emissions from the source on

air quality. This necessitates an evaluation by the Division regarding the adequacy of the data, and a showing by the Division that additional monitoring is needed, before more than a year of monitoring could be required.

OPERATION OF MONITORING STATIONS

Three parties proposed that the rule be written to allow the latest changes in EPA-approved methods to be used without first having to amend the rule. The Commission agrees with the need to use the most up-to-date approved methods. Accordingly, the final rule specifies that "EPA accepted procedures....as approved by the Division" can be used.

ADDITIONAL IMPACT ANALYSIS

Section IV.D.3.a.(vi) of the final rule requires an owner or operator of a proposed PSD source to provide an analysis of the impairment to water that would occur as a result of emissions associated with the source.

This analysis is not required by the EPA rules. The inclusion of water in the additional impact analysis reflects a strong concern by the Commission based in the record regarding acid deposition. At this time, there is neither the information nor the evidence of damage to justify regulating acid deposition in Colorado. However, the vulnerability of high altitude lakes to acid deposition and the potential increases in acid-forming pollutants such as SO_2 and NOx on the Western Slope from sources subject to the PSD program, particularly oil shale processing and large power plants, clearly demonstrate a need for a program to gather data, track and analyze this potential environmental problem. The inclusion of water in the additional impact analysis is intended to gather information on the problem; this analysis is not intended to affect permit approval or denial or control technology review decisions except for determinations of adverse impact to AQRVs in Class I areas. The issues that have been raised concerning water impact analysis are discussed in detail below.

a. Legal Authority to Require an Impact Analysis of Acid Deposition

The State Air Quality Control Act requires a PSD permit hearing to consider "air quality impacts of the source... and other appropriate considerations." C.R.S. 1973, 25-7-114(4)(f). Acid deposition can be construed as an indirect but potentially significant air quality impact which should be analyzed, especially in light of one of the stated purposes of the PSD Program "to protect public health and welfare from any actual or potential adverse effect which....may reasonably be anticipated to occur from air pollution <u>or from exposures to pollutants in other media, which pollutants originate as emissions to the ambient air (emphasis added)</u> ." Section 160(1) of the Clean Air Act. Acid deposition in water is those pollutants in other media originating as emissions to the ambient air.

The Federal Land Manager (FLM) of a Class 1 area is responsible for determining whether a source has an adverse impact on air quality related values which are generally defined as follows:

Any value of an area, which may be affected by a change in air quality. Examples include flora, fauna, soil, water, visibility, culture, and odors. Forest Service Comments, October 7, 1982, p.1.

Acid deposition may adversely affect such values, and thus an analysis of its effects should be required for review by the federal land managers of affected Class I areas.

b. Major Issues

The major issues discussed during the hearings are summarized below:

1. Are Colorado's watersheds sensitive to acid deposition?

John Turk of the USGS is involved in acid deposition research in Colorado and stated that 370 lakes in the Flattops Wilderness area comprising 157 hectares would be sensitive to potentially harmful degrees of acidification if precipitation attains an average pH of 4.0. (Exhibit 3, Nov. 10 Tr. at 153)

Ben Parkhurst maintains that there is talk of Colorado's lakes being sensitive (Oct. 29 Tr. at 146), but states that sensitivity must be considered together with acid inputs. Thus, if acid input to the water system is not sufficiently large the sensitivity question is not important.

Dr. William Lewis stated that Colorado's lakes are sensitive to acid deposition as demonstrated by the measured loss in buffering capacity he found in his studies. (Nov. 18 Tr. at 136-138)

In conclusion, it can be inferred that some Colorado lakes are poorly buffered and if sufficient levels of acidity are introduced into the lakes, these poorly buffered “sensitive” lakes could develop acidification problems.

2. Has acidification occurred in any Colorado lakes?

John Turk of the USGS states that there has not been any large degree of acidification taking place in the lakes or streams he has studied in the Flattops. (Nov. 10 Tr. at 172)

Ben Parkhurst also states that there is no evidence to show that any acidification has taken place in Colorado Lakes. (Oct. 29 Tr. at 144 and 150-152)

Dr. William Lewis states that he has noted pH changes in lakes he has studied (Nov. 18 Tr. at 140), but he does not consider that to be the major point in regard to the acidification question. Lewis considers the loss of buffering capacity to be the best indicator of acidification effects on lakes and he has found statistically valid evidence to show that this has occurred. (Nov. 18 Tr. at 136-138)

In summary, there is some evidence that pH has dropped slightly in some of the lakes Lewis has studied, however, it does not appear that acidification (drop in pH) has occurred to any large degree in Colorado, however, in the prediction of future impacts, buffering capacity should be examined and this has dropped in the lakes examined by Lewis.

3. Is there a potential for acidification in the future?

Paul Ferraro has done some research on estimating potential acid deposition impacts on Colorado and has determined that under different energy development scenarios, there is a potential for acidification in sensitive lakes. (Nov. 10 Tr. at 158-159)

Parkhurst states that he would not expect acidification to be a problem in the future, unless the acid deposition reaches levels similar to those found in the Northeast. (Oct. 29 Tr. at 154-156) Parkhurst states that Ferraro's study is conservative and a pH drop to 5.8 would not affect fish.

Oppenheimer (EDF Exhibit 32 p. 6) states that if a 1 $\mu g/m^3$ increase in SO_2 (annual average) occurs, acid deposition levels could result which would be damaging to sensitive lakes.

In summary, it can be inferred that there is a potential for energy development activities to cause increased levels of acids to be deposited in the watershed, and effects on pH may occur depending on the buffering capacity of the water. The degree of the effect will depend on the amount of acid, thus the amount of emissions.

4. Are there adequate methods of modeling for acid deposition effects on watersheds?

Paul Ferraro has utilized what he refers to as a “first cut” approach in estimating impacts due to acid deposition. The approach utilizes methods employed by John Turk for determining sensitivity of waters and methods for estimating deposition rates developed by Systems Applications, Inc. (Nov. 10 Tr. at 154-176)

Oppenheimer (EDF Exhibit 32 p. 12-13) states that acid deposition modeling could be conducted using presently available plume models (approved by EPA), which incorporate a plume depletion function to account for deposition. Results from this model could then be compared to deposition standards.

In summary, there appear to be only screening techniques available at this time for estimating the impacts of acid deposition.

5. What level of acidification is dangerous to aquatic ecosystems?

Parkhurst stated that fish could survive in pH's as low as 4.1. (Oct. 29 Tr. 143)

Lewis states that he feels that trout would be adversely impacted if pH dropped significantly below six as an average. He would not expect trout populations to be able to reproduce and grow at a pH below six. (Nov. 18 Tr. at 152,153)

Parkhurst also states that a permanent pH decrease from 6.0 to 5.0 is not a natural variation that many species would probably be eliminated, and species numbers and diversities reduced. (Nov. 10 Tr. at 110)

Parkhurst also testified that there is not any evidence to show that trout are capable of both reproducing and maturing in an environment, which is consistently of a pH of 4.5 or less. (Nov. 10 Tr. at 114)

In conclusion, the record does not clearly identify the point at which damage to fish will occur. However, testimony indicates that below a pH of 4.5, and maybe below 6, fish populations would not be able to reproduce and mature.

Summary

Few definitive conclusions could be drawn from the evidence and testimony. The main point of agreement was that at the present time there has not been any adverse acidification identified in any of Colorado's watersheds. The buffering capacity of lakes appears to be the important factor to consider in determining sensitivity of lakes. Testimony was given that buffering capacity has diminished in certain mountain lakes; however, the cause of this loss has not been identified. No agreement was reached on what level of pH could be tolerated by aquatic ecosystems without causing adverse impact. It could be agreed by all parties that more research must be conducted on acid deposition so that its effects may be better understood and predicted by appropriate models.

Although more information is needed, studies in the Northeastern United States, Canada, and Europe show that acid deposition can be a serious problem (Oct. 29 Tr. at 144-145 and EDF Exhibit 32 p.3). Colorado contains many lakes, which are sensitive, exhibiting low buffering capacities. If energy development occurs on the Western Slope emissions of acid precursors will grow substantially, which will result in increased acid deposition levels. The nature of energy industry in Colorado may result in rapid growth in a short period of time, which will occur before all information on acid deposition is understood. If a large industry develops and new information shows that ambient air standards and increments do not protect the state from acidification problems, a valuable resource may be damaged. For these reasons, the Commission intends to remain vigilant in monitoring this problem, and as analytical capabilities is developed or a problem develops, to re-address this issue for possible regulatory and/or legislative solutions. A subcommittee should be formed, if resources permit, to develop specific guidelines for acid

deposition analyses based on recent modeling innovations. In the interim, proposed PSD sources emitting acid or acid precursors will be required to analyze the impact of these emissions on water, utilizing the most up-to-date techniques available.

AREA CLASSIFICATIONS

Several parties objected to the application of Class I sulfur dioxide increments to those areas of Colorado listed in Section VIII.B. which are otherwise Class II areas. The sulfur dioxide Class I increments are required to be enforced in these areas by CRS 1973, 25-7-209. However, pursuant to CRS 1973, Section 25-7-105(8) (Supp. 1982), this Section VIII.B. may not be made a part of the State Implementation Plan (SIP) until these areas are redesignated as Class I under the procedures of Section IX. Until they are redesignated, they may only be enforced under state law and regulations. However, unlike Class I areas, the increment in these areas may be protected now. See CRS 1973, 25-7-210.

The Commission has also determined that the variances from increment consumption allowed by Sections XIV.C., XIV.D., XIV.E., and XIV.F. for Class I areas should also apply to the areas listed in Section VIII.B. It is a reasonable interpretation of CRS 1973, 25-7-209 that if the Class I (sulfur dioxide) increments are to apply to such areas; the variances from the increments should also apply. There is nothing in the State Act to indicate that the areas listed in CRS 1973, 25-7-209, are to be given better air quality protection than Class I areas, which would be the result if the variances did not apply.

REDESIGNATION

Several parties objected to what were considered burdensome requirements for redesignating areas to Class I. The adopted rule incorporates only the minimal requirements for redesignation from state and federal law. See CRS 1973, 25-7-208; Sec. 164 of the Federal Clean Air Act; 40 CFR 51.24(g). However, the Commission did lessen the burden imposed by the proposed rule on those persons requesting a redesignation by allowing such requests to be made without providing all of the information necessary for a redesignation. Who would provide such information is not specified so that it could be any combination of federal, state and private entities.

TECHNICAL MODELING & MONITORING REQUIREMENTS

Several parties proposed the inclusion of future EPA amendments or guidelines in this section of the regulation, which specifies the air quality model, monitoring and stack height requirements to be used. In response, the Commission adopted the use of “EPA approved” terminology instead of references to specific documents.

Two parties proposed language making EPA or the state responsible for any needed meteorological data. The Commission did not adopt this proposal because it is the applicant's responsibility to demonstrate that it will not cause exceedance of an NAAQS or increment, and meteorological data are nearly always needed to make such determinations. If the Division has such data, it has an obligation to make that data available to the applicant.

INNOVATIVE CONTROL TECHNOLOGY

Several parties proposed that the phrase “greater than or” be deleted from Section XIII.B.2. which specifies that the innovative system achieve emission reductions “greater than or equivalent to” BACT. The EPA regulation uses the phrase “equivalent to” and the parties considered the proposed state rule more stringent. The Commission does not consider the phrase “greater than or equivalent to” (emphasis added) to be more stringent, but instead to be a clarification that an acceptable innovation can result in either equivalent or lesser emissions from the source, but not a higher level of emissions. The preamble to the EPA PSD regulation (Div. Exhibit B, p. 84) clearly specifies that the “...final emission limitation must at least represent the BACT level that would have been initially defined...”

FEDERAL CLASS I AREAS

1. (Section XIV.A.) The State's Independent Determination of Adverse Impact to Visibility

Section XIV.A. allows the Division or the Board (if applicable) to determine independently if there is an adverse impact to visibility in Class I areas if the federal land manager (FLM) fails to make such determination or such determination is in error. This authority is intended to allow the state to fulfill the FLM's responsibility for protection of visibility if for whatever reason, including political, the FLM fails to do so. The Commission recognizes that scenic vistas are an important resource of the State of Colorado. (Colorado Mountain Club Exhibit #1) A subcommittee may be formed to further develop visibility protection for the State of Colorado.

Several parties suggested problems with the state's independent authority to make such visibility determinations. These consisted of (1) measuring or predicting visibility impairment, (2) quantifying man-induced, as opposed to naturally-occurring, visibility impairment, (3) the subjectiveness of visibility impairment, (4) the lack of correlation of current particulate standards to visibility impairment, and (5) the lack of guidance in the regulation regarding determinations of significant and adverse visibility impacts.

The Commission's response to these concerns is as follows:

(1) Although it is true that there are not federal reference methods for measuring visibility at this time, there are reliable means to accurately measure and predict visibility impairment. Scientific instruments such as the telephotometer, nephelometer, and the fine particulate monitor are recognized as being capable of obtaining objective information on visibility-related parameters. Photographs are also useful in visibility assessment.

Visibility theory involving scattering and absorption of light is well documented and has been incorporated into the models described in the Workbook for Estimating Visibility Impairment (EPA-450/4-8-031). The preface to the Workbook for Estimating Visibility Impairment states: “EPA believes these techniques are at a point where the results should now be employed to assist decision-makers in their assessments.” “These techniques” include the Plu-Vu Model. Div. Ex. J at iii. Thus, these models are appropriate for use at this time.

(2) It is possible to determine if a source of visibility impairment is natural or anthropogenic through various chemical/physical analysis techniques. Improvements in air sampling and analytical techniques have made available, for the first time, detailed information on the chemical and physical nature of the ambient aerosol and of source emissions. Using these chemical “fingerprints,” particle morphology and the natural variability of air shed sources, recent developments in receptor models have provided new techniques of assigning source contributions.

(3) Perception of visibility impairment is subjective and involves individual variability; however, norms do exist around which an assessment can be made. As noted above, EPA supports the use of its Workbook for Estimating Visibility Impairment as a guide to decision makers.

(4) Particulate standards do not address visibility-related effects. It is also true that the major anthropogenic visibility impairing pollutant is fine particulate matter. Since the Class I increment for particulate is in terms of total mass concentration, rather than fine particulates, visibility impairment could occur without the increment being violated. Furthermore, the particulate increment is a maximum allowable ground level concentration; consequently, it will not protect visibility impaired by plumes at elevations above ground level. These facts form the basis for the Clean Air Act requirement that visibility should be assessed and regulated in a separate analysis. Div. Ex. S.

(5) The primary guidance for determinations of adverse impact to visibility would be the Workbook for Estimating Visibility Impairment , which has very specific guidelines.

2. (Section XIV.B.) Pre-Application and Operational Monitoring of Air Quality Related Values (AQRVs)

Section XIV.B. of the regulation allows the Division to require a source, which will have or is likely to have an impact on any Class 1 area to conduct monitoring to establish the baseline status of and impacts on AQRVs in such Class 1 areas. EPA has not imposed this requirement on applicants, although under EPA rules and the Commission rule, Section IV.D.3.(a)(vi), an Additional Impact Analysis is required which would include an analysis of impacts on AQRVs based on available data, for example, through literature searches. The data gathered from such monitoring are important and necessary in aiding the federal land manager of a Class 1 area in determining whether or not a source will cause an adverse impact on AQRVs and the state in deciding on concurrence with such determination. The data also aid the public information function of the Additional Impacts Analysis. The authority to require submission of such information includes, but is not limited to, CRS 1973, 25-7-206(2), 25-7-106(5) and (6), and 25-7-114(4).

A. National Park Service and Forest Service Testimony and Positions

The National Park Service ("NPS") and the Forest Service ("FS") supported the rule as a supplement to their current monitoring activities on the basis that the data is necessary to determining adverse impacts on AQRVs, including visibility. See Mitchell, Nov. 18 Tr. at 122 et seq. , 161 et seq. ; Haddow, Oct. 28 (p.m.) Tr. at 22 et seq. , Nov. 10 Tr at 68 et seq. ; Region 2-USDA Forest Service Comments on Proposed PSD Rule; Comments on the May 19, 1982 Proposed Colorado PSD Regulation by National Park Service Air Quality Division.

The NPS stated its willingness to provide a list of sensitive receptors of AQRVs to applicants for monitoring. Mitchell, Nov. 18 Tr. at 162.

The Forest Service recognized severe technical difficulties and high costs of monitoring some pollutants and visibility in wilderness areas. Haddow, Oct. 28 (p.m.) Tr. at 22 et seq. However, lichen monitoring could be done without great difficulty and special use permits are available for some complex monitoring. Haddow, Nov. 10 (p.m.) Tr. at 112., The FS intends to identify sensitive indicators of AQRVs for each Class 1 area, e.g. 2 or 3 species of lichen and 2 or 3 scenic views, and proposes that the state require the monitoring of such indicators Id. at 82-83.

B. Environmental Defense Fund's (EDF) and Friends of the Earth's (FOE Position

EDF's and FOE's general contentions in support of the proposed monitoring requirements were:

1. the technology for monitoring of AQRV's exist;

2. the Forest Service has identified AQRV's for wilderness areas;

3. although some monitoring is being done, most areas are not being monitored and will not be without the participation of industry;

4. decisions on adverse impacts to AQRVs cannot be made rationally without reliable scientific evidence; and

5. the state is required to have a visibility monitoring program by EPA rules, 40 CFR 51.305.

"EDF and FOE Final Recommendations; Summaries of the Record and Legal and Policy Analyses," Section IV.

C. Trade Association Parties' Position

The Trade Association Parties' general contentions in opposition to the monitoring requirements were:

1. The Clean Air Act places the responsibility on the federal land manager to determine adverse impacts on AQRVs and, thus, the responsibility to obtain the data necessary to make such determination;

2. There is insufficient information available at this time to develop an AQRV monitoring program in that sensitive receptors for each Class 1 area have not been identified, there is no monitoring reference method available and no validated models to project impacts of particular emissions levels;

3. In some Class 1 areas monitoring is either physically impossible or inordinately expensive; and

4. The Division's discretion in specifying sensitive receptors is too vague and broad.

Trade Association Parties' Closing Argument at 31-34.

D. Commission Analysis and Decision

The above-cited testimony and evidence and other portions of the record support the conclusion that monitoring of AQRVs or sensitive receptors of AQRVs would be helpful, and in many cases necessary, to determine whether adverse impacts on AQRVs would occur. It is also evident that baseline data are not available and may never be developed by federal land managers for some AQRVs and sensitive receptors and for some Class 1 areas. Thus, the primary issue is where to place the responsibility for obtaining background data on AQRVs - the federal land manager, the state and/or the applicant.

As the Forest Service suggested, it is traditional permitting practice to require a permit applicant to obtain the data upon which the agency decides. Haddow, Nov. 10 (p.m.) Tr. at 89. This practice is consistent with the economic philosophy that companies should internalize their environmental costs. Furthermore, the Clean Air Act does not change such practice; it places the "affirmative responsibility" on federal land managers to protect AQRVs and to consider whether there will be an adverse impact on AQRVs but does not expressly state whose responsibility it is to provide necessary data upon which to exercise their responsibility.

The Commission has determined that there is available research and test methods for obtaining background data and impact data on many AQRVs that will be critical in making adverse impact determinations, even though there are not generally adopted reference methods or modeling techniques. For example, to perform a reasonably accurate visibility impairment analysis, background data is needed. Div. Ex. J. Although there are no generally accepted reference methods for estimating visibility impacts, methods for estimating visibility impairment have been developed and are relatively sophisticated. See Div. Ex. J.; Geier, Oct. 28 (a.m.) Tr. at 62-71. The rule recognizes this potential limitation on monitoring AQRVs by only allowing monitoring if "monitoring methods are

reasonably available and research and development of monitoring methods are unnecessary."

In response to the objection that the Division's discretion in selecting AQRVs for monitoring is too vague and broad, the rule provides:

1. A definition of AQRVs (in the Common Provisions Regulation);

2. That the Division will consult with the federal land manager in the selection of AQRVs; and

3. That the AQRVs selected must be important to the affected Class I area and there must be cause to believe that monitoring of the AQRVs will provide a basis for evaluating effects to the AQRVs.

In response to the objection that the monitoring of AQRVs may not be economically reasonable, the rule provides that:

1. no duplication of monitoring may be required;

2. not more than 3 AQRVs may be required to be monitored;

3. monitoring methods must be reasonably available;

4. monitoring may only be required if the source is a major contributor to the expected effects on the AQRV; and

5. it is economically reasonable as compared to other monitoring and analysis expenses required of a PSD permit applicant.

SULFUR DIOXIDE AMBIENT AIR STANDARDS FOR THE STATE OF COLORADO

The proposed rule would have revised the Colorado ambient air quality standard for sulfur dioxide to be consistent with the federal standard. Because the Colorado standard is not enforceable in the permitting process, see CRS 1973, 25-7-114(4)(g), the Commission ordered on November 10, 1982 that revisions of the state ambient air quality standard for SO_2 be removed as a subject of this rulemaking.

The Commission agreed to reconsider the state standard if and when it becomes enforceable.

PUBLIC ACCESS TO CONFIDENTIAL INFORMATION

One party raised the issue of whether Section VII of Regulation NO. 3 improperly restricts access to confidential information, which would be available under the Federal Clean Air Act. Section VII may not be considered for amendment in this rulemaking due to lack of public notice.

Adopted: March 10, 1983

Colorado Air Quality Control Commission

V.E. December 21, 1995 - Negligibly Reactive Volatile Organic Compounds

STATEMENT of BASIS, SPECIFIC STATUTORY AUTHORITY and PURPOSE

Adopted December 21, 1995 (Definitions for Negligibly Reactive VOC and Net emission increase h.)

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S. and the Colorado Air Pollution Prevention and Control Act, Section 25-7-110.5, C.R.S.

Basis

Regulations 3, 7 and the Common Provisions establish lists of Negligibly Reactive Volatile Organic Compounds (NRVOCs). The revisions adopted consolidate the list of NRVOCs into the Common Provisions, assuring that the same list of NRVOCs apply to all the Colorado Regulations. This provides more consistency in those chemicals regulated as VOCs.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act provides the authority for the Colorado Air Quality Control Commission to adopt and modify Regulations pertaining to organic solvents and photochemical substances. Sections 25-7-109(2)(f) and 25-7-109(2)(g), C.R.S., grant the Commission the authority to promulgate regulations pertaining to Organic solvents and photochemical substances. The Commission's action is taken pursuant to authority granted and procedures set forth in Sections 25-7-105, 25-7-109, and 25-7-110, C.R.S.

Purpose

These revisions to Regulations Number 3, 7, and the Common Provisions are intended to clarify substances that are negligibly reactive VOCs, which are reflected in the EPA list of non-photochemically reactive VOCs. By consolidating the list (which consists of the EPA list of non-photochemically VOCs), and adopting the EPA definition by reference, a single list of negligibly reactive VOCs will apply uniformly to all Colorado Air Quality Control Commission Regulations.

This revision will also include EPA's recent addition of acetone to the negligibly reactive VOC list. The addition of acetone to the list of negligibly reactive VOC's provides additional flexibility to sources looking for an alternative to more photochemically reactive VOCs. Because the EPA has added acetone to their list of non-photochemically reactive VOCs many industries, which make and supply products to Colorado industries, are planning to substitute acetone for VOCs that are more reactive. This change in the content of products purchased by industry for use in Colorado would adversely affect industries in Colorado if acetone remains a regulated VOC in Colorado. By adopting acetone as a negligibly reactive VOC, industries will be able to take advantage of and benefit from this possible shift in product contents.

Previously written statements of the basis and purpose of this regulation and revisions have been prepared and adopted by the Commission. These written statements have been incorporated in this regulation by reference and in accord with C.R.S. 1973, 24-4-103 as amended.

V.F. November 21, 1996 - Negligibly Reactive Volatile Organic Compounds

STATEMENT of BASIS, SPECIFIC STATUTORY AUTHORITY and PURPOSE

Revisions to Regulation Nos. 3, 7, 8 and Common Provisions Adopted: November 21, 1996

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S. and the Colorado Air Pollution Prevention and Control Act, Section 25-7-110.5, C.R.S.

Basis

Regulations 3, 7 and the Common Provisions establish lists of Negligibly Reactive Volatile Organic Compounds (NRVOCs). The revisions adopted update the list of NRVOCs so that the state list remains

consistent with the federal list. Additionally because perchloroethylene will no longer be listed as a VOC in Regulation Number 7, Section XII, *Control of VOC Emissions from Dry Cleaning Facilities using Perchloroethylene as a Solvent* , is being deleted.

Regulation Number 8 and 3 list the federal Hazardous Air Pollutants (HAPs). In the June 8, 1996 Federal Register the EPA removed Caprolactam (CAS 105-60-2) from the federal list of Hazardous Air Pollutants. The conforming changes in Regulation Number 3 Appendices B, C and D have been made to keep the list of federal HAPs in Regulation Number 3 consistent with the federal list. The list of HAPs in Regulation Number 8 has been removed and a reference to the list in Regulation Number 3 has been added.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act provides the authority for the Colorado Air Quality Control Commission to adopt and modify Regulations pertaining to organic solvents and photochemical substances. Section 25-7-109(2)(f) and 25-7-109(2)(g), C.R.S., grant the Commission the authority to promulgate regulations pertaining to organic solvents and photochemical substances. Sections 25-7-105(1)(l)(b) and 25-7-109(2)(h) provide authority to adopt emission control regulations and emission control regulations relating to HAPs respectively. The Commission's action is taken pursuant to authority granted and procedures set forth in Sections 25-7-105, 25-7-109, and 25-7-110, C.R.S.

Purpose

These revisions to Regulations Number 3, 7, 8 and the Common Provisions are intended to update the state lists of NRVOCs, the Ozone SIP, and HAPs for consistency with the federal lists.

V.G. April 19, 2001 - Any Credible Evidence and NRVOCs (methyl acetate)

STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE

(Incorporation by Reference of Federal Definition of Negligibly Reactive Volatile Organic Compounds (NRVOCs and Credible Evidence Provisions)

Adopted April 19, 2001

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Sections 24-4-103(4) and (12.5), C.R.S. and the Colorado Air Pollution Prevention and Control Act, Section 25-7-110.5, C.R.S.

Basis

The Reason for this revision to the Common Provisions Regulation is to correct an inadequacy in the Colorado State Implementation Plan and Section 110(a)(2)(A) and the (C) of the Clean Air Act. The Credible Evidence revisions need to be incorporated into the Colorado SIP to allow for the use of any credible evidence (ACE) for the purpose of submitting Title V compliance certifications or establishing whether a source has violated or is in violation of any emission standard contained in any regulation that has been submitted to the U.S. EPA. Failure to correct this SIP revision will result in promulgation of a Federal Implementation Plan (FIP) to correct the deficiency.

In a separate action of the above-described rulemaking, the definition of Negligibly Reactive Volatile Organic Compounds (NRVOCs) included in the Common Provisions Regulation is being changed to incorporate by reference the federal Volatile Organic Compound definition at 40 CFR Section 51.100(s)(1). This incorporation adds methyl acetate to the list of compounds included in the Common Provisions Regulation considered as NRVOCs and thereby exempts methyl acetate from the definition of volatile organic compounds for regulatory purposes.

Background

The credible evidence revisions are based on Section 113(a) of the federal Clean Air Act. This section authorizes the EPA to bring administrative, civil or criminal enforcement action "on the basis of any information available...." Although the Clean Air Act sets no inherent limits on the EPA's authority to use any type of information to prove a violation, some of EPA's regulations provide for specific test methods for determining compliance and have been read by some to constrain EPA's enforcement authority. In the district court case, United States v. Kaiser Steel Corp. , No. CV-82-2623 IH (C.D. Cal. January 17, 1984), the court construed the language of a New Source Performance Standard, at 40 CFR Section 60.11, as limiting the admissible evidence of violations of opacity standards to observations utilizing Method 9, the opacity reference method. When the EPA attempted to use expert testimony pertaining to opacity to prove the existence of violations only on those days without Method 9 test data, the court rejected the evidence and held that EPA could prove violations only on those days where the Method 9 test data was conducted. In contrast, the court in National Lime Association v. EPA , 627 F.2d 416, 446, n. 103 (D.C. Cir. 1980) specifically rejected the assertion that standards can only be supported by reference test data.

In the 1990 Clean Air Act Amendments, Congress included an enforcement title, Title VII, to enhance compliance and enforcement authorities. The amended Section 113(e)(1) provides that "in determining the amount of any penalty to be assessed," the agency shall take into consideration "the duration of a violation as established by any credible evidence (including evidence other than the applicable test method)." Legislative history for this amendment shows that Congress meant to clarify that in an enforcement action, courts are not restricted to reference test method data, but may consider any evidence of violation or compliance admissible under relevant evidentiary rules (see S. Rep. No. 228, 101st Congress, 1st Session 1, 358 (1989), reprinted in 1990 U.S. Code Cong. & Admin. News 3385, 3741. [1] Section 113(e)(1), along with Section 113(a), described above, clarify that compliance and noncompliance can be determined on the basis of any credible evidence. Subsequent to the 1990 Clean Air Act Amendments, two court cases have upheld the use of credible evidence other than the reference test method specified in the regulation. See Sierra Club v. Public Service Company , 894 F. Supp. 1455 (D.C. Colo. 1995), and Unitek Environmental Services v. Hawaiian Cement , Civ. No. 95-00723 (D. Hawaii 1996).

1The Senate Report stated that Section 113(e)(1) makes clear that the agency may rely upon any credible evidence of violations in pursuing alleged violations. Further, the Report explained that the amendment clarifies that courts may consider any evidence of violation or compliance admissible under the federal Rules of Evidence, and that they are not limited to consideration of evidence that is based solely on the applicable test method in the State Implementation Plan or regulation. Thus, this amendment overrules the ruling in United States v. Kaiser Steel Corp. (citation omitted) to the extent the court in that case excluded the consideration of such evidence. (Senate Report at 358, Reprint at 3741.)

The federal credible evidence revisions, codified in 40 CFR Sections 51.212(c) and 52.33(a), require that State Implementation Plans must provide for enforceable test methods for each emission limit specified in the plan and the plan "must not preclude the use, including the exclusive use, of any credible evidence or information," for the purposes of submitting compliance certifications or establishing whether a person has violated or is in violation of any standard in the plan. The revisions provide that where information, such as non-reference emissions data, parametric data or engineering analysis is equivalent to information generated by reference test methods, it may be used to establish compliance or noncompliance.

The federal credible evidence revisions received substantial public comment from state and local air pollution control agencies, large and small industries, trade associations and environmental organizations. A summary of the public comments received the EPA's response to the comments and the final rule is contained in 62 Federal Register 8314 (Feb. 24, 1997).

Shortly after the rule became final, several trade associations brought a court action for judicial review (*see* Clean Air Act Implementation Project, et al., v. Environmental Protection Agency, *et al.*), in the United States Court of Appeals for the District of Columbia. The Colorado Air Pollution Control Division

held workgroup meetings with affected and interested parties to discuss incorporating the federal credible evidence revisions into the State Implementation Plan.

At the request of affected industry, the discussions were withheld until after the final court decision on appeal. The Court of Appeals issued its final decision on August 14, 1998, dismissing the petition for review and upholding the credible evidence revisions. The Court held that "there are too many imponderables." Whether credible evidence can be used to determine compliance or noncompliance must be decided on a case-by-case basis, given the universe of all possible evidence that might be considered "credible" and that application of evidence other than a specified reference test result may potentially affect some standards, but not others.

The Colorado Utilities Coalition and the Colorado Association of Commerce and Industry have requested that the Commission review and determine whether emissions standards in Colorado regulations were established in reliance on specific reference test methods and whether incorporating the credible evidence revisions into the Common Provisions Regulation will alter the stringency of any of Colorado's regulations. These are some of the same questions put before the Court of Appeals for the District of Columbia in the Clean Air Act Implementation Project case described above, and that the court refused to answer because of the many imponderables presented.

There are over 130-reference test methods described in the federal and Colorado regulations. Reliance on credible evidence other than a reference test may potentially affect some standards, but not others. Added to this is the fact that "credible evidence" is not a finite evidentiary set - the Commission cannot conceive of all possible evidence that might be considered credible. There are some emissions standards included in State Implementation Plans, such as the grain loading particulate matter standards contained in Colorado Regulation Number 1, that were established without consideration of the "back half" or condensable portion of the particulate matter emissions. In this situation, reliance on evidence showing noncompliance with particulate matter standards through test methods, AP-42 factors, or other engineering analysis that considers the condensable portion of the particulate matter emissions will render compliance with Regulation Number 1 emission limitations more stringent.

On the other hand, it is not possible to conceive of all the evidence that may be credible in determining whether a source is in compliance with the "front half" particulate matter emission standards in Regulation Number 1, other than the through the use of reference Test Method 5. In all cases, the proponent of evidence other than the reference test method, whether for purposes of demonstrating compliance or noncompliance in an enforcement action or challenging a permit concerning demonstrations of ongoing compliance for compliance certifications, bears the burden of demonstrating that the evidence is credible and consistent with compliance demonstrations through use of the relevant performance or reference test method. The Colorado Rules of Evidence will guide the Commission's determinations of whether evidence is credible, i.e., technically relevant and legally admissible in an adjudicatory matter before the Commission.

With respect to the methyl acetate incorporation by reference, in April 1998, the EPA modified 40 CFR Section 51.100(s)(1) to add methyl acetate to the list of compounds having negligible photochemical reactivity and exempting it from the definition of volatile organic compounds (63 Federal Register 17331, April 9, 1998). The EPA found that methyl acetate had photochemical reactivity comparable to or less than that of ethane, both on a per gram and per mole basis.

Ethane has been on the list of compounds having negligible photochemical reactivity since 1977. By incorporating the federal list of compounds included in 63 Federal Register 17331 (April 9, 1998) into 40 CFR Section 51.100(s)(1), Colorado's Negligibly reactive VOCs definition conforms to the federal list.

Authority

The Colorado Air Pollution Prevention and Control Act, Section 25-7-105(a)(I), provides that the Colorado State Implementation Plan meet all requirements of the federal Clean Air Act. The authority to promulgate rules and regulations to assure conformity with federal Clean Air Act requirements is given to the

Colorado Air Quality Control Commission under Section 25-7-105. Section 25-7-105(IV)(12), in particular, provides the authority for the Commission to adopt rules consistent with the federal Clean Air Act Title V minimum elements of a permit program.

Purpose

The specific purpose of incorporating the ACE revisions into the Common Provisions is to make the Colorado SIP consistent with the federal Clean Air Act requirements and avoid promulgation of a FIP. The incorporation by reference of the current federal definition of compounds having negligible photochemical reactivity also makes the Colorado SIP consistent with the federal Clean Air Act requirements.

Federal Requirements

The rule revisions are required by Section 110(k)(5) of the federal Clean Air Act, 42 U.S.C. §7410(k)(5) that finds the SIP inadequate to comply with Sections 110(a)(2)(A) and (C) of the Clean Air Act, 42 U.S.C. § §7410(a)(2)(A) and (C), because the Colorado SIP may be interpreted to limit the types of credible evidence or information that may be used for determining compliance and establishing violations. Neither the rule nor the incorporation by reference exceed or differ from federal requirements.

COLORADO AIR QUALITY CONTROL COMMISSION

ADOPTED: April 19, 2001

V.H. August 16, 2001 - Affirmative Defense

STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE

Revisions to Common Provisions Regulation August 16, 2001

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Sections 24-4-103(4) and (12.5), C.R.S. for and the Colorado Air Pollution Prevention and Control Act, Section 25-7-110.5, C.R.S.

Statutory Authority

The Colorado Air Pollution Prevention and Control Act, Section 25-7-109, C.R.S., provides the Commission the authority to adopt and revise rules and regulations that are consistent with state policy regarding air pollution and with federal recommendations and requirements. Section 25-7-105(1), C.R.S., grants the Commission the authority to promulgate rules necessary to implement and administer the Colorado Air Pollution Prevention and Control Act. Section 25-7-106(1), C.R.S., grants the Commission maximum flexibility in developing an effective air quality control program. Section 25-7-105(1), C.R.S., provides the authority for the Commission to make state implementation plan revisions.

Basis

The reason for this revision to the Common Provisions regulation is to provide appropriate relief, in terms of an affirmative defense to civil penalties, for sources that experience excess emissions during startup, and shutdown events, despite their best efforts to comply with applicable emission standards. In general, startup and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the planning, design and implementation of operating procedures for the process and control equipment. Accordingly, it is reasonable to expect that careful and prudent planning, design and operation will eliminate violations of emission limitations during such periods. For some source categories, given the types of control technologies available, there may exist short periods of emissions during startup and shutdown when, despite best efforts regarding planning, design and operating procedures, the otherwise applicable emission limitation cannot be met. The Affirmative Defense for

Excess Emissions During Startup and Shutdown revisions to the Common Provisions regulation recognize this fact. Although all excess emissions arising during startup and shutdown must be treated as violations under this rule, an affirmative defense may be available to a source that will shield it from civil penalty liability if the owner/operator meets the requirements of the rule. In making affirmative defense determinations, it is the intent of the Air Quality Control Commission to allow the use of all sources of information, including any credible evidence, the affirmative defense criteria, physical inspection of the facility and review of documentation pertaining to maintenance and operation of process and air pollution control equipment to determine whether the owner/operator proved the relevant factors under this rule. The affirmative defense provision is not available for claims for injunctive relief.

The Commission established several requirements that an owner/operator must prove in order to avail itself of an affirmative defense to civil penalties. These requirements must be evaluated on a case-by-case basis according to the type of source as well as the nature of the cause of any excess emissions. For example, paragraph D requires that an owner/operator demonstrate that it minimized the frequency and duration of operation in startup and shutdown periods to the maximum extent practicable. In general, emission standards applicable to a source category are based on the type of operation, so excess emissions must be evaluated in light of the cause and its relation to the standard. On the other hand, sources naturally have differences in the frequency and duration of shutdown and startup cycles and this fact must be included in any affirmative defense evaluation.

This revision specifically refers in factor E. to minimizing the impact on ambient air quality. The Commission believes that every effort should be made to avoid adverse air quality impacts, even though the ambient air may be better than established minimum standards. Whether some step is possible should take into account the relative cost of the step and the time to implement it in relation to the amount or duration of excess emissions that would be avoided.

The Commission initially proposed including off-line maintenance periods between shutdown and startup in this affirmative defense provision. The Commission chose not to provide an affirmative defense for off-line maintenance periods, but to rely on the enforcement discretion of the Air Pollution Control Division to address excess emissions during these periods. The Commission recognizes that during off-line maintenance at coal-fired electric utility boilers, infrequent, short-term periods of excess opacity readings may occur despite the use of good air pollution control practices. Other types of sources may experience similar occurrences. The Commission anticipates that, in evaluating its enforcement options and penalty determinations regarding excess emissions during off-line maintenance periods, the Division will consider factors similar to those in this rule for shutdown and startup periods. In particular, factors B., E. and H. will be important in determining the appropriate response to a source's excess emissions. The Division should also consider whether the owner/operator used available scheduling options to minimize the impact of potential excess emissions on ambient air quality.

The Commission decided to allow use of an affirmative defense only for violations of performance standards or emission limitations with an averaging time of twenty-four hours or less. Sources subject to standards or limitations with longer averaging times should be able to meet those requirements in spite of excess emissions during periods of startup or shutdown. Restricting the affirmative defense rule in this way should help to assure that excess emissions from a single source or small group of sources do not cause an exceedance of ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

Purpose

The specific purpose of incorporating the Affirmative Defense revisions into the Common Provisions is to make the Colorado SIP consistent with the federal EPA's Policy Regarding Excess Emissions During Malfunction, Startup and Shutdown dated September 20, 1999.

Federal Requirements

The rule revisions are not required by the federal Clean Air Act but, to the extent states wish to obtain EPA approval of a state implementation plan revision to provide relief for excess emissions that occur during startup and shutdown events, the rule revisions must be consistent with EPA's policy dated September 20, 1999.

COLORADO AIR QUALITY CONTROL COMMISSION

ADOPTED: August 16, 2001

V.I. July 18, 2002 - General Cleanup and Clarifying Changes

STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE

Revisions to Common Provisions Regulation

This Statement of Basis, Specific Statutory Authority and Purpose comply with the requirements of the Colorado Administrative Procedure Act Sections 24-4-103(4) and (12.5), C.R.S., for new and revised regulations.

Basis

The Common Provisions Regulation is designed to assist in the implementation of more substantive regulatory programs authorized under the Colorado Air Pollution Prevention and Control Act (“Act”) including provisions of the State Implementation Plan addressed in Section, 25-7-105(1)(a), C.R.S., emission control regulations addressed in Section, 25-7-105(1)(b), C.R.S., and prevention of significant deterioration requirements addressed in Section, 25-7-105(1)(c), C.R.S., as well as other authorized programs under the Act. The current revisions have been promulgated in order to facilitate this goal. The majority of the revisions were proposed by the Air Pollution Control Division based on their internal review of the regulation and extensive discussions with interested parties regarding shortcomings of the regulation. The Division's initial proposals were addressed at length during a subcommittee process involving the Commission, the Division, stakeholders and other interested parties. During this process, participants commented on the initial proposal and offered additional suggestions. The proposal presented to the Commission is a collaborative effort of the Division and interested stakeholders.

Specific Statutory Authority

The specific statutory authority for these revisions is set forth in Section, 25-7-105(1), C.R.S., which gives the Air Quality Control Commission authority to promulgate rules and regulations necessary for the proper implementation of the Air Pollution Prevention and Control Plan. Additional authority for these revisions is set forth in Section, 25-7-106, C.R.S.

Purpose

A review of the Common Provisions Regulation revealed numerous grammatical, stylistic and formatting errors, language ambiguities and obsolete or duplicative provisions. These revisions are intended to cleanup, clarify and streamline the Commission's Common Provisions Regulation. The revisions are not intended to add additional requirements, delete requirements or substantively change existing requirements.

The changes reflected in the revisions to the Common Provisions Regulation fall into three categories: 1) deletion of obsolete or duplicative provisions; 2) stylistic, grammatical and formatting changes designed to improve readability of the regulation; and 3) language changes to address ambiguities and avoid unintended regulatory results.

1) Elimination of Obsolete and Duplicative Provisions

Over the years, the Common Provisions Regulation has expanded to include new definitions and other provisions intended to assist in implementing the substantive requirements set forth in other regulations. In reviewing the regulation it was determined that many of the definitions and a few of the other requirements were either obsolete or duplicated in other regulations. For example, Section III, regarding Smoking Gasoline Powered Motor Vehicle and Section X, addressing Conflict of Interest by Commission Members were deleted from the regulation because they are duplicated in other regulations. Provisions included in Section III can be found in Commission Regulation Number 11 and Section X of the Commission's Procedural Rules. Similarly, a number of definitions set forth in the Common Provisions are also contained in Regulation Number 3.

Because Regulation Number 3 underwent contemporaneous review, the primary focus was to eliminate duplications between the Common Provisions and Regulation Number 3. Duplicative provisions that were only applicable to Regulation Number 3 were deleted from the Common Provisions Regulation. Provisions applicable to multiple regulations remain in the Common Provisions and were deleted from Regulation Number 3. Certain duplicative definitions not related to Regulation Number 3 were also addressed. A full review of all the Commission's regulations was not undertaken during this rulemaking process. The duplicative provisions that remain in the Common Provisions Regulation will be addressed when other regulations are opened for revision.

2) Stylistic, Grammatical and Formatting Revisions

The revisions include grammatical, formatting and stylistic changes designed to make the regulation more readable. For example, reference to the “Air Quality Control Commission” in Section I.A. was changed to “Commission” and a number of parenthetical acronyms were eliminated. These changes are not designed to change applicable requirements, but rather to streamline the language of the regulation and to make the regulation stylistically consistent with other Commission regulations.

The regulation contains numerous references to the Colorado Air Quality Control Act. In 1992, the legislature changed the name of the Act to the Air Pollution Prevention and Control Act. References in the Common Provisions were revised to reflect this change. Additionally, date references to the Act and other enactments were eliminated to clarify that the references are to the current enactments and not to some outdated version. The date reference in the definition of ozone depleting compound was retained to reflect that future changes to the federal ozone depleting compound lists will need to be incorporated by reference during subsequent rulemakings.

3) Clarifying Changes

The revisions address a number of concerns that the Division and other interested parties raised during the subcommittee process regarding ambiguous provisions. For example, pursuant to Regulation Number 1, different equations exist for calculating emission limits for manufacturing process equipment and fuel burning equipment. There has been some confusion regarding which standard applied when fuel-burning equipment was used as part of a manufacturing process. The revisions to the Common Provisions Regulation change the definition of fuel burning and add a definition for manufacturing process equipment to clarify that fuel burning emissions are counted as manufacturing process emissions when they are vented through a common stack with other emissions from the manufacturing process. When fuel-burning emissions are vented separately, they are subject to the fuel burning equation.

The definition of construction was changed to clarify that while the statutory definition will govern in most instances, there are certain programs such as PSD, NSR/NAA, and NSPS, that may utilize different definitions of construction.

Revisions to the definition of federally enforceable clarify the provisions that can be considered federally enforceable. The previous definition appeared unduly restrictive. This issue is important with respect to the PSD and NSR/nonattainment area (NAA) programs since a source may avoid program requirements by taking federally enforceable conditions that reduce the level of emission below the major source threshold. The new definition clarifies that state only requirements, whether specifically denoted as such

in a permit or in the regulations, but not in the state implementation plan, are not federally enforceable. The definition further clarifies that all requirements contained in an operating, PSD or NSR/NAA permit are federally enforceable.

Similarly, the definition of enforceable was revised to more accurately reflect that enforceable encompasses both federal and state enforceable requirements regardless of where the requirement appears.

In the prior version of the regulation, the definitions for coal and Reid Vapor Pressure contained references to a specific test method. These provisions were changed to refer more generally to "appropriate" test methods. These changes reflect that test methods can be updated and changed depending on the circumstances. What is considered appropriate in a given case will depend on the factual circumstance under which the test would be applied.

The definition of air pollution source, as well as several other definitions, was modified to eliminate inconsistencies with the statutory definition. Despite these inconsistencies, the Commission believes that the prior definitions were intended to have the same practical meaning as the statutory definition.

The Commission decided not to adopt changes to the definition of upset conditions or to the upset conditions and breakdown provision in the Common Provisions Regulation. The Division proposed revisions to the upset provision to address concerns expressed by the Environmental Protection Agency, then engaged in extensive discussions with interested stakeholders and the Environmental Protection Agency. In view of the terms included in the existing regulation, and the Commission's and Division's interpretation of the upset provision, the Commission concluded that no change is necessary at this time.

4) Other Issues

During the subcommittee process a question was raised as to why the definition of air pollutant differed in the Common Provisions and Regulation Number 3. These differences reflect the fact that the term is defined differently in the State and Federal Act. The Common Provisions definition reflects that State Act. The Commission is not aware of any practical implications arising from these differences.

COLORADO AIR QUALITY CONTROL COMMISSION

ADOPTED: July 18, 2002

V.J. March 10, 2004 - Definition of condensate.

The definition of the term condensate was adopted in conjunction with the Ozone Action Plan and contemporaneous revisions to Regulation Number 7 to control emissions of volatile organic compounds from condensate operations, as described in the statement of basis, specific statutory authority, and purpose for the March 10, 2004 revisions to Regulation Number 7.

The statutory authority for the definition is set out in Sections 25-7-105(1)(a) and (1)(b); 25-7-106(1)(c) and (5); and 25-7-109(1)(a) and (2), C.R.S.

V.K. March 12, 2004-Regulation Number 9

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S. and the Colorado Air Pollution Prevention and Control Act, Sections 25-7-110 and 25-7-110.5.

Basis

The rule revisions adopted address the use of air curtain destructors for burning materials generated as a result of projects conducted to reduce the risk of wildfire. Regulation 9 deals with open burning activities and Regulation 3 contains emission notice requirements. The Common Provisions Regulation contains a definition related to these devices.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act, Section 25-7-109(2)(e), C.R.S., provides the authority for the Commission to adopt and modify emissions control regulations pertaining to open burning activities. These regulatory changes implement the provisions of the Colorado Air Pollution Prevention and Control Act, 25-7-101, et. seq., that prohibit anyone from operating an air pollution source such as an air curtain destructor without first obtaining a permit.

The Commission's action is taken pursuant to procedures set forth in Sections 25-7-105, 25-7-110 and 25-7-110.5, C.R.S. The Commission took into consideration the appropriate items enumerated in Section 25-7-109(1)(b), C.R.S.

Purpose

In 2002, the Commission adopted regulations to implement the requirements of Senate Bill 99-145 and Senate Bill 01-214 relating to open burning activities by public and private land managers and other significant users of fire for range and forest management. Since that action, the public and both state and federal agencies have focused on the risks associated with wildfires, particularly in the forest/urban interface throughout Colorado. The Commission views reduction of the risks associated with wildfires and their potential for serious public health consequences as a result of the emissions from the fires as an important component in protecting public health and the environment. The Commission also views the use of methods to reduce risk that also reduce air pollution emissions compared to other methods as an additional important factor. In this rule adoption, the Commission acted to enlarge the options available to dispose of materials generated by projects conducted to reduce the risks of wildfire. It is the intention of the Commission that practical alternatives to burning be used when they exist.

The Commission reviewed the available emissions data and limited uses proposed for air curtain destructors. That information demonstrated to the satisfaction of the Commission that, with appropriate permit conditions, the destructors can safely be used to dispose of certain materials without endangering public health, causing, or contributing to a violation of the National Ambient Air Quality Standards (NAAQS) and will reduce emissions compared to traditional pile burning.

The Division performed an air dispersion modeling analysis on December 30, 2003. The analysis is based on the assumption that the air curtain destructors operate no more than 13 hours per day and no more than 110 days per year at a single site. In addition, it is assumed that no more than 20 tons of fuel will be burned per hour. At this level of operation and fuel throughput, the device would be limited to 110 days per year to meet the restriction in the proposed regulation that no more than 100 tons of any criteria pollutant be emitted per year.

Screening level air quality analyses suggest that emissions from air curtain destructors are not expected to cause violations of the carbon monoxide, sulfur dioxide, and nitrogen dioxide ambient air quality standards except in situations where the air curtain destructor is operated next to a nearby source of air pollutants that is already causing high air pollution impacts in an area that, for one reason or another, has poor existing air quality. The analyses suggest it would be prudent to require setbacks in the regulation to prevent public exposure to potentially elevated PM10 levels near the units. The proposed setbacks of 150 feet and 300 feet for short-term versus long-term sites are reasonable except in situations where the air curtain destructor is located near another stationary source of fugitive PM10 emissions. Accordingly, the rule adopted prohibits co-location of an air curtain destructor with another air curtain destructor or any facility that is required to have an air quality permit or any commercial or industrial facility.

The rule adopted contains specific limitations to assure that the devices are operated consistently with the Commission's expectations. The rule adopted allows disposal of wood products generated by projects conducted to reduce the risks of wildfire. The information presented to the Commission did not demonstrate that air curtain destructors are appropriate for disposal of other materials including clean lumber.

V.L. July 21, 2005

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S., and the Colorado Air Pollution Prevention and Control Act, Sections 25-7-110 and 25-7-110.5, C.R.S.

Basis

Regulation no. 3 sets forth the Air Quality Control Commission's permitting and air pollutant emission notice programs for stationary sources. The Commission amended Regulation Number 3, Part A, Section V. to make it consistent with the repeal of the Emissions Trading Rule in Regulation Number 5 in December 2004. It was originally anticipated that Regulation Number 5 would replace Part A, Section V. in Regulation Number 3 as the Commission's trading program, essentially identical to EPA's. The text of Part A, Section V. was italicized to represent provisions that would remain effective until EPA approved the program in Regulation Number 5. EPA decided not to finalize its trading program; therefore, it would never approve Regulation Number 5 as a SIP component. The Commission deleted Section V.A.3., Part A that contained the outmoded effective date. The Commission also replaced the italicized text with normal font in all of Part A, Section V. to conform the text to these circumstances. In addition, one hazardous air pollutant (2-butoxyethanol) was deleted to conform the State's list (in appendix b) to the Federal list of hazardous air pollutants.

The Common Provisions Regulation sets forth requirements and definitions that pertain or may pertain to all of the other Commission regulations. EPA added four compounds to its list of compounds (known as non reactive volatile organic compounds) to be excluded from the definition of volatile organic compound on the basis that these compounds make a negligible contribution to tropospheric ozone formation. The Commission adopted a conforming change to the definition of non-reactive volatile organic compounds in the Common Provisions Regulation, Section I.G.

Specific statutory authority

The Colorado Air Pollution Prevention and Control Act give the Commission authority to promulgate regulations necessary for the proper implementation of the act. Section 25-7-105(12), C.R.S, provides specific authority to establish emission notice, construction permit and operating permit programs. Some of the statutory parameters for these programs are set forth in Sections 25-7-114 through 25-7-114.7 of the act and these sections, in turn, provide statutory authority for the current revisions. Additional authority for these revisions is set forth in Sections 25-7-106, 25-7-119 and 25-7-132, C.R.S.

The Commission's adoption of this rule is taken pursuant to procedures set forth in Sections 25-7-105, 25-7-110 and 25-7-110.5, C.R.S.

Purpose

The Commission took into consideration the appropriate items enumerated in Section 25-7-109(1)(b), C.R.S.

The purpose of removing the italicized text from Regulation Number3, Part A, Section V. was to prevent any ambiguity about the applicability of those provisions. Changing the font of the text does not have any regulatory impact since the provisions were already in effect and will remain in effect. Section V.A.3. was deleted because it was an outmoded provision that was only necessary if Section V. was to be replaced

by Regulation Number 5. The Commission's repeal of Regulation Number 5 made that provision unnecessary. Removing the italics from Section V. also will eliminate confusion with the italicized text in Part D of Regulation Number 3.

The purpose of the deletion of one hazardous air pollutant in appendix b of Regulation Number 3 and the addition of four non-reactive volatile organic compounds to the list in Section I.G. of the Common Provisions Regulation is to conform the Commission's rules to Federal regulations. The Federal rule changes were published on November 29, 2004. If the Commission did not make these revisions, the State rules would be more restrictive than the Federal rules because these revisions serve to exempt the compounds from emission standards, monitoring, reporting and record keeping requirements.

V.M. August 17, 2006

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S., and the Colorado Air Pollution Prevention and Control Act, Sections 25-7-110 and 25-7-110.5, C.R.S.

Basis

On November 29, 2004, EPA revised the federal definition of volatile organic compounds (VOCs) to specifically treat tertiary butyl (t-butyl) acetate as a VOC only for certain purposes, including reporting and photochemical dispersion modeling. The Commission is making corresponding changes to the definition of VOCs in the Common Provisions Regulation, and is adding t-butyl acetate as a non-criteria reportable pollutant in Regulation Number 3, Part A, Appendix B. Sources of t-butyl acetate will be required to report the pollutant separately from their VOC emissions on an Air Pollutant Emission Notice, and should not count their t-butyl acetate emissions when evaluating compliance with applicable VOC emission limitations. The Division should combine VOC emissions and reported t-butyl acetate emissions when conducting dispersion modeling for sources of t-butyl acetate.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act, Section 25-7-105, C.R.S., gives the Commission authority to promulgate regulations necessary for the proper implementation of the Act, including rules to assure attainment and maintenance of national Ambient Air Quality Standards and a prevention of significant deterioration program. Section 25-7-105(12), C.R.S. provides specific authority to establish emission notice, construction permit and operating permit programs. Some of the statutory parameters for these programs are set forth in Sections 25-7-114 through 25-7-114.7 of the Act and these Sections, in turn, provide statutory authority for the current revisions. Additional authority for these revisions is set forth in Sections 25-7-106, 25-7-119 and 25-7-132, C.R.S.

The Commission's adoption of this rule is taken pursuant to procedures and requirements set forth in Sections 25-7-105, 25-7-110 and 25-7-110.5, C.R.S.

Purpose

These revisions will provide clarity for affected sources by maintaining consistency with the federal definition of volatile organic compounds. Further, these revisions include any typographical errors within the regulation.

V.N. December 15, 2006

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedure Act Sections 24-4-103(4) and (12.5), C.R.S. for new and revised regulations.

Basis

The Common Provisions Regulation is designed to assist the implementation of more substantive regulatory programs authorized under the Colorado Air Pollution Prevention and Control Act ("Act") including provisions of the State Implementation Plan addressed in Section, 25-7-105(1)(a), C.R.S., emission control regulations addressed in Section, 25-7-105(1)(b), C.R.S., prevention of significant deterioration requirements addressed in Section, 25-7-105(1)(c), C.R.S., as well as other authorized programs under the Act. The current revisions have been promulgated in order to facilitate this goal. The revisions were proposed by the Air Pollution Control Division based on discussions with EPA and extensive discussions with interested parties regarding the availability of an affirmative defense for upset conditions or malfunctions.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act, C.R.S. § 25-7-105(1)(a) authorizes the Commission to adopt rules necessary to implement the Act, and to adopt and revise comprehensive state implementation plans to assure attainment and maintenance of national ambient air quality standards. C.R.S. § 25-7-109 authorizes the Commission to adopt rules that are consistent with state policy regarding air pollution and with federal recommendations and requirements. C.R.S. § 25-7-109(5) requires the Commission to promulgate rules setting conditions and time limitations for periods of startup, shutdown or malfunction or other conditions which justify temporary relief from controls. Additional authority for these revisions is set forth in Section, 25-7-106 and 25-7-109, C.R.S.

Purpose

Revisions to Section II.E., regarding upset conditions and malfunctions, were made to clarify the process by which a source must identify an upset or malfunction. The Division has changed the term upset to malfunction for consistency with EPA policy.

In addition, the provision was revised to clarify that an affirmative defense is available to claims for violation of the Commissions' regulations for civil penalties in enforcement actions regarding excess emissions arising from upset conditions and malfunctions . The Commission does not interpret this to mean that every upset should be reported by the Division to EPA as a violation. The affirmative defense is not available to a claim of violation of these regulations in the context of claims for injunctive relief. Sudden and unavoidable upset conditions and malfunctions caused by circumstances beyond the control of an owner or operator occur from time to time despite best efforts regarding planning, design and operational procedures. The upset conditions and malfunction provision recognizes this fact. An affirmative defense may be available to shield a source from civil penalty liability if the owner or operator meets the requirements of the rule. For purposes of II.E.1.J the Commission does not intend that modeling be done to show that Upsets or malfunctions have or have not caused a violation of the NAAQS.

Section II.E.4 indicates that the affirmative defense does not apply to federally promulgated standards (such as NSPS and NESHAPS requirements.) The Commission does not intend this provision to modify those federally promulgated standards or any exemptions for malfunction events that may apply under those standards.

Additionally, the Commission recognizes and intends that certain source permits may not currently adequately accommodate malfunctions as this new rule provides. The Commission intends that the Division work with those specific sources to accommodate malfunctions into their permit limits, as appropriate.

COLORADO AIR QUALITY CONTROL COMMISSION

ADOPTED: December 15, 2006

V.O. Revisions to Definitions Adopted December 17, 2009

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedure Act Sections 24-4-103(4) and (12.5), C.R.S. for new and revised regulations.

Basis

The Common Provisions Regulation is designed to assist the implementation of more substantive regulatory programs authorized under the Colorado Air Pollution Prevention and Control Act ("Act") including provisions of the State Implementation Plan addressed in Section, 25-7-105(1)(a), C.R.S., emission control regulations addressed in Section, 25-7-105(1)(b), C.R.S., prevention of significant deterioration requirements addressed in Section, 25-7-105(1)(c), C.R.S., as well as other authorized programs under the Act. The current revisions have been promulgated in order to facilitate this goal.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act, C.R.S. § 25-7-105(1)(a) authorizes Colorado's Air Quality Control Commission ("Commission") to adopt rules necessary to implement the Act, and to adopt and revise comprehensive state implementation plans to assure attainment and maintenance of national ambient air quality standards. C.R.S. § 25-7-109 authorizes the Commission to adopt rules that are consistent with state policy regarding air pollution and with federal recommendations and requirements. C.R.S. § 25-7-106(1)(a) authorizes the Commission to adopt definitions of air pollution. Additional authority for these revisions is set forth in Section, 25-7-106 and 25-7-109, C.R.S.

Purpose

Revisions to definitions found in Section I.G. were made to be consistent with federal definitions. Specifically, the Commission herein revises the definition of "negligibly reactive volatile organic compound," or NRVOC, and "volatile organic compound," or VOC, set forth in the Common Provisions Regulation to be consistent with the federal definitions found in the Code of Federal Regulations, Title 40, Part 51, Section 51.100(s) (July 1, 2009).

Specifically, the Commission adds the following compounds to the definition of "negligibly reactive volatile organic compounds" :

(1)1,1,1, 2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE-7300)

Propylene carbonate

Dimethyl carbonate

The Commission adds clarification to the NRVOC definition by adding the common name or chemical structure of currently listed NRVOCs.

The Commission adds clarification to the VOC definition by adding the test methodology references used to determine VOC and NRVOC contents.

Additionally, any identified typographical, grammatical and formatting errors are proposed to be made.

COLORADO AIR QUALITY CONTROL COMMISSION

ADOPTED: December 17, 2009

V.P. October 21, 2010 (Sections I.A., I.F. and I.G.)

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedure Act Sections 24-4-103(4) and (12.5), C.R.S. for new and revised regulations.

Basis

The Common Provisions Regulation is designed to assist the implementation of more substantive regulatory programs authorized under the Colorado Air Pollution Prevention and Control Act ("Act") including provisions of the State Implementation Plan (SIP) addressed in C.R.S. Section 25-7-105(1)(a), emission control regulations addressed in C.R.S. Section 25-7-105(1)(b), prevention of significant deterioration requirements addressed in C.R.S. Section 25-7-105(1)(c), regulations as may be necessary and proper for the orderly and effective administration of construction permits and renewable operating permits addressed in C.R.S. Section 25-7-114.4(1), as well as other authorized programs under the Act. The current revisions have been promulgated in order to facilitate this goal. The revisions were proposed by the Air Pollution Control Division based on EPA's GHG Tailoring Rule. On June 3, 2010, EPA promulgated the "Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule." 75 Federal Register 31514 (June 3, 2010). EPA's GHG Tailoring Rule was designed to tailor the applicability criteria that determine which stationary sources and modification projects become subject to permitting requirements for greenhouse gases (GHGs) under the Prevention of Significant Deterioration (PSD) and Title V Permitting Programs of the Clean Air Act (CAA).

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act, C.R.S. Section 25-7-105(1)(a) authorizes the Commission to adopt rules necessary to implement the Act, and to adopt and revise comprehensive state implementation plans to assure attainment and maintenance of national ambient air quality standards. C.R.S. Section 25-7-109 authorizes the Commission to adopt rules that are consistent with state policy regarding air pollution and with federal recommendations and requirements. C.R.S. Section 25-7-109(2) authorizes the Commission to regulate oxides of carbon, oxides of nitrogen and other chemicals, which encompasses the pollutant GHG. Additionally, Colorado is authorized to regulate the pollutant GHG under PSD and Title V in C.R.S. Sections 25-7-103(1.5), 25-7-114(3), 25-7-114.3, and 25-7-201. Additional authority for these revisions is set forth in Sections 25-7-106 and 25-7-109, and 25-7-114 C.R.S.

This Statement of Basis, Specific Statutory Authority and Purpose complies with the requirements of the Colorado Administrative Procedure Act Sections 24-4-103(4), C.R.S. for new and revised regulations.

In order to maintain consistency between state regulations and federally enforceable regulations contained in the SIP, the Commission intends these revisions be adopted into the SIP.

Purpose

The Air Quality Control Commission has adopted revisions throughout the Common Provisions Regulation to address GHG regulation in Colorado.

<u>Common Provisions Proposed Revisions:</u>

The revisions to the Common Provisions as approved by the Commission are summarized below:

- Revise Applicability section to be consistent with the incorporation by reference section found in Regulation Number 3, Part A, Section I.A. (Section I.A.)

- Add GHG and CO2e to list of acronyms (Section I.F.)

- Revise definitions of Greenhouse Gas & Carbon Dioxide Equivalent (Section I.G.)

Additionally, the Division proposes revisions to make typographical, grammatical and formatting changes, as necessary.

COLORADO AIR QUALITY CONTROL COMMISSION

ADOPTED: October 21, 2010

Editor's Notes

History

Entire Rule eff. 01/30/2010.

Sections I.A., I.F., I.G., V.P. eff. 12/15/2010.