



Dedicated to protecting and improving the health and environment of the people of Colorado

**To:** Karin McGowan, Interim Executive Director/Director of Community Relations,  
Colorado Department of Public Health and Environment

**From:** Cary E. Ruble, Regulation Development and Enforcement Coordinator,  
Division of Environmental Health and Sustainability

**Through:** Jeff Lawrence, Director  
Division of Environmental Health and Sustainability (jL)

**Date:** October 2, 2018

**Subject:** **Rulemaking Hearing**  
Proposed Repeal of 6 CCR 1010-17, *Urea Formaldehyde Foam Insulation* (UFFI)

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The Division of Environmental Health and Sustainability (“division”) is proposing repeal of 6 CCR 1010-17, *Urea Formaldehyde Foam Insulation* (UFFI) regulations. In compliance with Executive Order D 2012-002 and the State Administrative Procedure Act, §24-4-103.3, C.R.S., the department has conducted a review of 6 CCR 1010-17. Based on this review, the division is recommending repeal of the UFFI regulation to align the state regulation with federal law and regulation and eliminate a nonessential and ineffective regulation.

Formaldehyde is used ubiquitously in building materials and to produce many household products and is normally present at low levels in both outdoor and indoor air. UFFI is injected or sprayed as a mixture of urea formaldehyde resin, an acidic foaming agent, and a propellant, such as air. After installation, and typically within the first 24 hours, the curing or hardening of UFFI may result in the short-term off-gassing of formaldehyde. It is the formaldehyde off-gas that became a controversial issue and potential health concern in the U.S. and Canada in the early 1980s, resulting in the temporary ban of UFFI by U.S. Consumer Product Safety Commission in 1982. However, in April 1983, the U.S. Court of Appeal repealed the law because there was no substantial evidence clearly linking UFFI to health complaints. Colorado has not taken any actions regarding the UFFI regulation since the initial development and adoption nearly forty years ago.

The division appreciates the Executive Director’s consideration.

STATEMENT OF BASIS AND PURPOSE  
AND SPECIFIC STATUTORY AUTHORITY  
for Repeal of  
6 CCR 1010-17, *Urea Formaldehyde Foam Insulation*

Basis and Purpose.

Formaldehyde is a colorless, flammable chemical used ubiquitously in building materials and to produce many household products. It is used in pressed-wood products, such as particleboard, plywood, and fiberboard; glues and adhesives; permanent-press fabrics; paper product coatings; and certain insulation materials, such as urea formaldehyde foam insulation. Formaldehyde occurs naturally in the environment and is normally present at low levels in both outdoor and indoor air. UFFI is injected or sprayed as a mixture of urea formaldehyde resin, an acidic foaming agent, and a propellant, such as air. After installation, and typically within the first 24 hours, the curing or hardening of UFFI may result in the off-gassing of formaldehyde. It is the formaldehyde off-gas that became a controversial issue and potential health concern in the U.S. and Canada in the early 1980s.

In 1980, laboratory studies showed that exposure to formaldehyde could cause nasal cancer in rats. Based on these concerns, Colorado enacted 6 CCR 1010-17, the *Urea Formaldehyde Foam Insulation* (UFFI) regulation. In 1982, based on a few scientific sources and public complaints of specific symptoms such as eye irritation, respiratory problems, headaches, nausea and dizziness following UFFI installation, the U.S. Consumer Product Safety Commission (CPSC) banned the sale of UFFI for use in residences and schools. Shortly thereafter a law prohibiting the sale of UFFI in the U.S. was enacted. However, in April 1983, the U.S. Court of Appeal repealed the law because there was no substantial evidence clearly linking UFFI to health complaints.

Although the installation of UFFI was common in the U.S. during the 1970s, and continues to be used in Europe, UFFI was used most extensively in Canada from 1975 to 1978. Following the ban of UFFI in Canada in 1980 due to perceived health concerns, lawsuits involving homeowners claiming harm from formaldehyde off-gas contained in UFFI were not uncommon. However, the Quebec Superior Court has dismissed the lawsuits based on the grounds that sufficient proof of either physical or economic harm from their exposure to formaldehyde released from UFFI was not demonstrated.

The International Building Code (IBC) is a model building code developed and maintained by the International Code Council (ICC) and has been adopted for use as the base building code standard by most jurisdictions in U.S. The ICC describes the IBC as “an essential tool to preserve public health and safety that provides safeguards from hazards associated with the built environment.” There is no reference to UFFI within the 2012 IBC.

The current Colorado UFFI regulation prohibits the installation in any school, nursery (child care), or institutions licensed under 25-3-101, C.R.S., 1973 (hospitals-health facilities). Plan review of proposed hospitals and health facilities in Colorado is completed by CDPHE’s Health Facilities and Emergency Medical Services Division (HFEMS). These reviews utilize the Facility Guidelines Institute (FGI) *2010 Guidelines for Design and Construction of Hospitals and Outpatient Facilities*. FGI’s 2010 guidelines are in place for the “development of safe effective health and residential care built environments.” As with the IBC there is no reference to UFFI within the 2010 FGI. Additionally, the proposed repeal of the UFFI regulation was discussed with representatives from Disease Control and Environmental

Epidemiology Division (DCEED). Based on these discussions, DCEED has taken no actions regarding the UFFI regulation since its adoption in 1980.

UFFI product used in the 1970s contained a greater quantity of formaldehyde and a longer cure-time that resulted in higher levels of formaldehyde after installation in the indoor air for the first few months. For some time another urea-formaldehyde (UF) spray foam product has been used for insulation. While technically classified as a UF material, it is functionally different from UFFI. Previously, UFFI materials were made of liquid resins with higher levels of formaldehyde to maintain product shelf lives. The new UF spray foam product's liquid resin is produced with lower amounts of urea and formaldehyde and includes drying the liquid to remove any VOCs, including free formaldehyde. Therefore, less formaldehyde is released. These improvements in formulation by UFFI manufacturers has significantly reduced the amount and duration of formaldehyde off-gassing.

While the regulation has been in place for close to 40 years the division has never conducted any program functions or activities. More importantly, the need for any activities has not been demonstrated by consumer complaints, increased health risks/incidences or utilization of the product.

Given the repeal of the UFFI ban in 1983 by the U.S. Court of Appeal, IBC and FGI's silence on the issue of UFFI, and discussions with representatives from DCEED, HFEMS and the division, continued regulation of UFFI is not essential for the protection of human health in Colorado. In the nearly four decades since adoption of Colorado's *Urea Formaldehyde Foam Insulation* regulation, UFFI has never been a health concern for Coloradans. Colorado's UFFI regulation is not aligned with the Governor's Executive Order D 2012-002 as being essential, effective or efficient and therefore the division is requesting repeal of the subject rule.

Specific Statutory Authority.

Statutes that require or authorize rulemaking: Sections 25-5-502(1)(b) and 25-5-508(2)(a), C.R.S.

Is this rulemaking due to a change in state statute?

Yes, the bill number is \_\_\_\_\_. Rules are \_\_\_ authorized \_\_\_ required.  
 No

Does this rulemaking incorporate materials by reference?

Yes  
 No

Does this rulemaking create or modify fines or fees?

Yes  
 No

Does the proposed rule create (or increase) a state mandate on local government?

No. This rule does not require a local government to provide a specific service or increase a specific activity for which the local government will not be reimbursed.

No. This rulemaking reduces or eliminates a state mandate on local government.

Yes. This rule includes a new state mandate or increases the level of service required to comply with an existing state mandate, and local government will not be reimbursed for the costs associated with the new mandate or increase in service.

The state mandate is categorized as:

- Necessitated by federal law, state law, or a court order
- Caused by the State's participation in an optional federal program
- Imposed by the sole discretion of a Department
- Other: \_\_\_\_\_

Has an elected official or other representatives of local governments disagreed with this categorization of the mandate?  Yes  No

If yes, please explain why there is disagreement in the categorization.

Please elaborate as to why a rule that contains a state mandate on local government is necessary.

REGULATORY ANALYSIS  
for Repeal of  
6 CCR 1010-17, *Urea Formaldehyde Foam Insulation* (UFFI)

- 1. A description of the classes of persons who will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule.**

The UFFI regulation was adopted in 1980 and is obsolete. No persons will be affected by the repeal of this rule as the department has receive no public inquiries or complaints and has taken no action regarding the UFFI regulation since the initial development and adoption in 1980.

- 2. To the extent practicable, a description of the probable quantitative and qualitative impact of the proposed rule, economic or otherwise, upon affected classes of persons.**

There is no quantitative, qualitative or economic impact due to the repeal of 6 CCR 1010-17.

- 3. The probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues.**

Repeal of 6 CCR 1010-17 would be accomplished with minimal, if any, cost to the department or any other agency.

- 4. A comparison of the probable costs and benefits of the proposed rule to the probable costs and benefits of inaction.**

The benefit of the repeal is to eliminate an ineffective and nonessential regulation. There is no benefit of inaction.

- 5. A determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule.**

The UFFI regulation is ineffective and nonessential and no less costly or intrusive method for achieving the purpose of the rule was identified.

- 6. Alternative Rules or Alternatives to Rulemaking Considered and Why Rejected.**

In the early 1980s, the manufacture, sale, or use of UFFI was banned, at some level, in nine states that included Massachusetts, California, Connecticut, New Hampshire, New Jersey, New York, Ohio, Michigan, and Colorado. Of the nine states, Massachusetts, New Hampshire, Ohio, and Michigan have repealed their UFFI bans. New Jersey has retained their ban on UFFI while New York law bans the sale, but not the use of UFFI.

California and Connecticut have adopted limitations on the sale that include a mandatory UFFI Safety Notice presented to the purchaser and a certification process in which compliance is achieved through defined material testing standards. Consideration was given to this approach, but rejected due to the lack evidence that any regulation of UFFI is necessary in the protection of human health.

7. **To the extent practicable, a quantification of the data used in the analysis; the analysis must take into account both short-term and long-term consequences.**

Colorado has not taken any actions regarding the UFFI regulation since the initial development and adoption in 1980. Repeal of 6 CCR 1010-17 presents no adverse short-or long-term consequences to Coloradans.

**STAKEHOLDER ENGAGEMENT**  
for Repeal of  
6 CCR 1010-17, *Urea Formaldehyde Foam Insulation*

State law requires agencies to establish a representative group of participants when considering to adopt or modify new and existing rules. This is commonly referred to as a stakeholder group.

**Early Stakeholder Engagement:**

The following individuals and/or entities were invited to provide input and included in the development of these proposed rules.

<b>Organization</b>	<b>Representative</b>
CDPHE - DEHS	Jeff Lawrence
CDPHE - DEHS	Sean Scott
CDPHE - DEHS	Cary Ruble
CDPHE - HFEMS	Marshall Cook
CDPHE - DCEED	Mike VanDyke
Massachusetts Bureau of Environmental Health	Jen Robertson
California State Energy Resources Conservation and Development Commission	Todd Ferris
Connecticut State Fire Marshal	William Abbott
New Hampshire Bureau of Building Safety and Construction	Sean Toomey
New Jersey Department of Community Affairs	Mike Baier
New York State Department, Division of Building Standards and Code	Mark Mirando
Ohio Revised Code	Document Review
Michigan Occupational Safety and Health Administration	Nicky (no last name)
National RetroFoam	Steve Sayers

Beginning in July 2018, the division began having informal discussions with stakeholders regarding the proposed repeal of 6 CCR 1010-17. Based on the repeal of the UFFI ban by the U.S. Court of Appeal and information obtained through discussions with department staff, UFFI manufacturers, and representatives from other states, interest in the proposed repeal of Colorado's UFFI regulation was minimal.

If further feedback is received by the Department in advance of the rulemaking hearing, this will be presented to the Executive Director at the time of the hearing.

**Stakeholder Group Notification**

No stakeholders have signed up for communications related to this rule. However, notice of the rulemaking hearing and this proposal were posted on the Department website. Notice was provided prior to the date the notice of rulemaking was published in the Colorado Register (typically, the 10<sup>th</sup> of the month following the Request for Rulemaking).

Not applicable. This is a Request for Rulemaking Packet. Notification will occur if the Board of Health sets this matter for rulemaking.

Yes.

Summarize Major Factual and Policy Issues Encountered and the Stakeholder Feedback Received. If there is a lack of consensus regarding the proposed rule, please also identify the Department’s efforts to address stakeholder feedback or why the Department was unable to accommodate the request.

NA- Only supportive comments on the proposed repeal were received.

Please identify the determinants of health or other health equity and environmental justice considerations, values or outcomes related to this rulemaking.

The repeal of 6 CCR 1010-17 has no health equity and environmental justice impacts.

Overall, after considering the benefits, risks and costs, the proposed rule:

Select all that apply.

	Improves behavioral health and mental health; or, reduces substance abuse or suicide risk.	Reduces or eliminates health care costs, improves access to health care or the system of care; stabilizes individual participation; or, improves the quality of care for unserved or underserved populations.
	Improves housing, land use, neighborhoods, local infrastructure, community services, built environment, safe physical spaces or transportation.	Reduces occupational hazards; improves an individual’s ability to secure or maintain employment; or, increases stability in an employer’s workforce.
	Improves access to food and healthy food options.	Reduces exposure to toxins, pollutants, contaminants or hazardous substances; or ensures the safe application of radioactive material or chemicals.
	Improves access to public and environmental health information; improves the readability of the rule; or, increases the shared understanding of roles and responsibilities, or what occurs under a rule.	Supports community partnerships; community planning efforts; community needs for data to inform decisions; community needs to evaluate the effectiveness of its efforts and outcomes.
	Increases a child’s ability to participate in early education and educational opportunities through prevention efforts that increase protective factors and decrease risk factors, or stabilizes individual participation in the opportunity.	Considers the value of different lived experiences and the increased opportunity to be effective when services are culturally responsive.
	Monitors, diagnoses and investigates health problems, and health or environmental hazards in the community.	Ensures a competent public and environmental health workforce or health care workforce.
X	Other: <u>Aligns the state regulation with federal law and regulation and eliminates a nonessential and ineffective regulation.</u>	Other: _____ _____



~~DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT~~~~Division of Environmental Health and Sustainability~~~~UREA FORMALDEHYDE FOAM INSULATION~~~~6 CCR 1010-17~~

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

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**RULES****1. Definitions**

- (a) ~~“Toxic” - in accordance with C.R.S. 1973, 25-5-502(20), is defined as any substance which has the capacity to produce personal injury or illness to man through ingestion, inhalation or absorption through any body surface.~~
- (b) ~~“Strong sensitizer” - in accordance with C.R.S. 1973, 25-5-502(18), is defined as any substance which will cause, on normal living tissue, through an allergic or photodynamic process, a hypersensitivity which becomes evident on reapplication of the same substance.~~
- (c) ~~“Irritant” - in accordance with C.R.S. 1973, 25-5-502(12), is defined as any substance which on immediate, prolonged or repeated contact with normal living tissue will induce a local inflammatory reaction.~~
- (d) ~~“Hazardous substance” - in accordance with C.R.S. 1973, 25-5-502(10)(a), is defined as any substance or mixture of substances which is toxic, corrosive, an irritant or a strong sensitizer.~~
- (e) ~~“Urea Formaldehyde Foam Insulation” - means a cellular plastic product which is manufactured at the job site by mixing two liquid chemicals - urea formaldehyde based resin and a foaming agent - and generally, pressurized air, through a foaming equipment system. The resultant mix has a shaving cream-like consistency and is usually pumped through a relatively small hole into the walls of standing structures. After it is in the wall, the product cures and becomes firm and self-supporting.~~
- (f) ~~“Manufacturer of UFFI” - means the installer who combines the component materials and foams the insulation into its permanent location.~~
- (g) ~~“Contracts of Sale” - means any invoice, sales agreement, contract for service, offer to sell or install, or other document that specifies price and terms of the service and/or merchandise to be provided in insulating a building with urea formaldehyde foam.~~

2.

- (a) ~~Formaldehyde, urea formaldehyde resin and urea formaldehyde foam insulation are declared to be hazardous substances.~~
- (b) ~~Formaldehyde, urea formaldehyde foam insulation and urea formaldehyde resin are declared to be irritants.~~
- (c) ~~Formaldehyde, urea formaldehyde resin, and urea formaldehyde foam insulation are declared to be toxic substances.~~
- (d) ~~Formaldehyde, urea formaldehyde resin and urea formaldehyde foam insulation are declared to be strong sensitizers.~~

3. ~~The future installation of UFFI is forbidden in any school, nursery or any institution required to be licensed under C.R.S. 1073, 25-3-1.01.~~

4.

- (a) ~~Before the manufacturer installs UFFI he shall provide to the purchaser or prospective purchaser the warning required in those rules.~~
- (b) ~~The manufacturer of UFFI shall include the warning statement on all contracts of sale of UFFI. If the manufacturer does not present a written contract of sale to the prospective purchaser, then the warning shall appear on a receipt of the transaction or on a document relating to the credit transaction regarding the sale of UFFI that gives the seller a security interest in the purchaser's real property. If the manufacturer does not present any of these documents, then the warning shall appear on a separate piece of paper.~~
- (c) ~~The warning shall read as follows:~~

WARNING

~~THIS PRODUCT MAY RELEASE FORMALDEHYDE GAS OVER A LONG PERIOD OF TIME. FORMALDEHYDE GAS MAY CAUSE EYE, NOSE, AND THROAT IRRITATION, COUGHING, SHORTNESS OF BREATH, SKIN IRRITATION, NAUSEA, HEADACHES AND DIZZINESS. PEOPLE WITH RESPIRATORY PROBLEMS OR ALLERGIES MAY SUFFER MORE SERIOUS REACTIONS, ESPECIALLY PERSONS ALLERGIC TO FORMALDEHYDE.~~

- ~~The symptoms may appear immediately or not until months after installation.~~
- ~~Use of the insulation in attics, ceilings and interior walls increases the likelihood of releasing formaldehyde gas into your home. In some instances, the formaldehyde gas cannot be controlled by ventilation or other inexpensive means.~~
- ~~If you have health concerns, call your doctor. Also, contact (installer-phone) or (material supplier-phone) immediately.~~

~~(d) The warning shall appear prominently and conspicuously. It shall be printed in legible, bold face type. If the contract of sale, receipt, document related to a credit transaction, or separate piece of paper provides for a signature of the purchaser, then the warning shall appear on the same page as the signature of the purchaser and before the signature of the purchaser.~~

~~(e) The manufacturer shall not be deemed to have met the requirements of this section if the manufacturer provides the prospective purchaser or purchaser with any oral or written statement that in any manner negates or disclaims the warning required by this section.~~

5. These rules and regulations are not intended to preempt local authorities from adopting regulations which are more stringent than these rules.

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### **Editor's Notes**

### **History**