

Administrative Procedures – Emergency Rule Coversheet

Instructions:

In accordance with Title 3 Chapter 25 of the Vermont Statutes Annotated and the “Rule on Rulemaking” adopted by the Office of the Secretary of State, this emergency filing will be considered complete upon filing of the following components with the Office of the Secretary of State, the Legislative Committee on Administrative Rules and submitting a copy to the Chair of the Interagency Committee on Administrative Rule:

- Emergency Rule Coversheet
- Adopting Page
- Economic Impact Statement
- Public Input Statement
- Scientific Information Statement (if applicable)
- Incorporated by Reference Statement (if applicable)
- Clean text of the rule (Amended text without annotation)
- Annotated text (Clearly marking changes from previous rule)

All forms requiring a signature shall be original signatures of the appropriate adopting authority or authorized person, and all filings are to be submitted at the Office of the Secretary of State, no later than 3:30 pm on the last scheduled day of the work week.

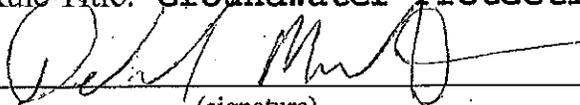
The data provided in text areas of the emergency coversheet form will be used to generate a notice of rulemaking in the newspapers of record if the rule is marked for publication. Publication of notices will be charged back to the promulgating agency based on the word count of the notices. This emergency rule will be effective for a total of 120 days from the date it takes effect.

Certification Statement: As the adopting Authority of this rule (see 3 V.S.A. § 801(b)(11) for a definition), I believe there exists an imminent peril to public health, safety or welfare, requiring the adoption of this emergency rule.

The nature of the peril is as follows (*PLEASE USE ADDITIONAL SHEETS IF SPACE IS INSUFFICIENT*). The State is establishing a groundwater standard for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in light of the emergency response activities in North Bennington, Bennington, and Pownal.

I approve the contents of this filing entitled:

Rule Title: **Groundwater Protection Rule and Strategy**

 , on 04/13/2016
(signature) (date)

Printed Name and Title:

Deb Markowitz, Secretary
Agency of Natural Resources

RECEIVED BY: _____

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- Economic Impact Statement
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1. TITLE OF RULE FILING:

Vermont Groundwater Protection Rule and Strategy

2. ADOPTING AGENCY:

Vermont Agency of Natural Resources

3. PRIMARY CONTACT PERSON:

(A PERSON WHO IS ABLE TO ANSWER QUESTIONS ABOUT THE CONTENT OF THE RULE).

Name: Matthew Chapman

Agency: Agency of Natural Resources

Mailing Address: 2 Davis, 1 National Life Drive, Montpelier
Vermont 05620-3520

Telephone: 802 249 - 4393 Fax: -

E-Mail: matt.chapman@vermont.gov

Web URL *(WHERE THE RULE WILL BE POSTED)*:

<http://www.anr.state.vt.us/dec/wastediv/index.htm>

4. SECONDARY CONTACT PERSON:

(A SPECIFIC PERSON FROM WHOM COPIES OF FILINGS MAY BE REQUESTED OR WHO MAY ANSWER QUESTIONS ABOUT FORMS SUBMITTED FOR FILING IF DIFFERENT FROM THE PRIMARY CONTACT PERSON).

Name: Ellen Parr Doering

Agency: Agency of Natural Resources

Mailing Address: 1 Davis, 1 National Life Drive, Montpelier
Vermont 05620-3520

Telephone: 802 236 - 1483 Fax: -

E-Mail: ellen.parrdoering@vermont.gov

5. RECORDS EXEMPTION INCLUDED WITHIN RULE:

(DOES THE RULE CONTAIN ANY PROVISION DESIGNATING INFORMATION AS CONFIDENTIAL; LIMITING ITS PUBLIC RELEASE; OR OTHERWISE EXEMPTING IT FROM INSPECTION AND COPYING?) No

IF YES, CITE THE STATUTORY AUTHORITY FOR THE EXEMPTION:

PLEASE SUMMARIZE THE REASON FOR THE EXEMPTION:

6. LEGAL AUTHORITY / ENABLING LEGISLATION:

(THE SPECIFIC STATUTORY OR LEGAL CITATION FROM SESSION LAW INDICATING WHO THE ADOPTING ENTITY IS AND THUS WHO THE SIGNATORY SHOULD BE. THIS SHOULD BE A SPECIFIC CITATION NOT A CHAPTER CITATION).

10 V.S.A Section 1392

7. CONCISE SUMMARY (150 WORDS OR LESS):

This emergency rule establishes a primary groundwater enforcement standard of 20 parts per trillion for perfluorooctanoic acid (PFOA) and 30 parts per trillion for perfluorooctanesulfonic acid (PFOS).

8. EXPLANATION OF WHY THE RULE IS NECESSARY:

This rule is necessary because PFOA and PFOS are wastes that the Secretary has determined are toxic, persists for an extended period in nature, that cause and contribute to adverse chronic effects on the health of persons including being a suspected carcinogen. This rulemaking is to formalize a standard for appropriately responding to releases of PFOA and PFOS.

9. LIST OF PEOPLE, ENTERPRISES AND GOVERNMENT ENTITIES AFFECTED BY THIS RULE:

None.

10. BRIEF SUMMARY OF ECONOMIC IMPACT (150 WORDS OR LESS):

The exposure and health impacts associated with PFOA and PFOS outweigh any costs that a company responding to a release may incur.

11. A HEARING IS NOT SCHEDULED .

12. HEARING INFORMATION

(THE FIRST HEARING SHALL BE NO SOONER THAN 30 DAYS FOLLOWING THE POSTING OF NOTICES ONLINE).

IF THIS FORM IS INSUFFICIENT TO LIST THE INFORMATION FOR EACH HEARING PLEASE ATTACH A SEPARATE SHEET TO COMPLETE THE HEARING INFORMATION NEEDED FOR THE NOTICE OF RULEMAKING.

Date:

Time: PM

Street Address:

Zip Code:

Date:

Time: AM

Street Address:

Zip Code:

13. DEADLINE FOR COMMENT (NO EARLIER THAN 7 DAYS FOLLOWING LAST HEARING):
04/18/2016
14. EMERGENCY RULE EFFECTIVE: 4/29/2016
15. EMERGENCY RULE WILL REMAIN IN EFFECT UNTIL
(A DATE NO LATER THAN 120 DAYS FOLLOWING ADOPTION OF THIS EMERGENCY RULE):
8/26/2016
16. NOTICE OF THIS EMERGENCY RULE SHOULD NOT BE PUBLISHED IN THE
WEEKLY NOTICES OF RULEMAKING IN THE NEWSPAPERS OF RECORD.
17. KEYWORDS (PLEASE PROVIDE AT LEAST 3 KEYWORDS OR PHRASES TO AID IN THE
SEARCHABILITY OF THE RULE NOTICE ONLINE).
Perfluorooctanoic acid
PFOA
Perfluorooctanesulfonic acid
PFOS
hazardous waste

Run Spell Check

Administrative Procedures – Adopting Page

Instructions:

This form must be completed for each filing made during the rulemaking process:

- Proposed Rule Filing
- Final Proposed Filing
- Adopted Rule Filing
- Emergency Rule Filing

Note: To satisfy the requirement for an annotated text, an agency must submit the entire rule in annotated form with proposed and final proposed filings. Filing an annotated paragraph or page of a larger rule is not sufficient. Annotation must clearly show the changes to the rule.

When possible the agency shall file the annotated text, using the appropriate page or pages from the Code of Vermont Rules as a basis for the annotated version. New rules need not be accompanied by an annotated text.

1. TITLE OF RULE FILING:

Vermont Groundwater Protection Rule and Strategy

2. ADOPTING AGENCY:

Agency of Natural Resources

3. AGENCY REFERENCE NUMBER, IF ANY:

4. TYPE OF FILING (*PLEASE CHOOSE THE TYPE OF FILING FROM THE DROPDOWN MENU BASED ON THE DEFINITIONS PROVIDED BELOW*):

- **AMENDMENT** - Any change to an already existing rule, even if it is a complete rewrite of the rule, it is considered an amendment as long as the rule is replaced with other text.
- **NEW RULE** - A rule that did not previously exist even under a different name.
- **REPEAL** - The removal of a rule in its entirety, without replacing it with other text.

This filing is **AN AMENDMENT OF AN EXISTING RULE**

5. LAST ADOPTED (*PLEASE PROVIDE THE SOS LOG#, TITLE AND LAST DATE OF ADOPTION FOR THE EXISTING RULE*):

February 14, 2005

Run Spell Check



Administrative Procedures – Economic Impact Statement

Instructions:

In completing the economic impact statement, an agency analyzes and evaluates the anticipated costs and benefits to be expected from adoption of the rule. This form must be completed for the following filings made during the rulemaking process:

- Proposed Rule Filing
- Final Proposed Filing
- Adopted Rule Filing
- Emergency Rule Filing

Rules affecting or regulating public education and public schools must include cost implications to local school districts and taxpayers in the impact statement (see 3 V.S.A. § 832b for details).

The economic impact statement also contains a section relating to the impact of the rule on greenhouse gases. Agencies are required to explain how the rule has been crafted to reduce the extent to which greenhouse gases are emitted (see 3 V.S.A. § 838(c)(4) for details).

All forms requiring a signature shall be original signatures of the appropriate adopting authority or authorized person.

Certification Statement: As the adopting Authority of this rule (see 3 V.S.A. § 801 (b) (11) for a definition), I conclude that this rule is the most appropriate method of achieving the regulatory purpose., In support of this conclusion I have attached all findings required by 3 V.S.A. §§ 832a, 832b, and 838(c) for the filing of the rule entitled:

Rule Title: Groundwater Protection Rule and Strategy

Deb Markowitz, on 4-13-16
(signature) (date)

Printed Name and Title:
Deb Markowitz, Secretary
Agency of Natural Resources

BE AS SPECIFIC AS POSSIBLE IN THE COMPLETION OF THIS FORM, GIVING FULL INFORMATION ON YOUR ASSUMPTIONS, DATABASES, AND ATTEMPTS TO GATHER OTHER INFORMATION ON THE NATURE OF THE COSTS AND BENEFITS INVOLVED. COSTS AND BENEFITS CAN INCLUDE ANY TANGIBLE OR INTANGIBLE ENTITIES OR FORCES WHICH WILL MAKE AN IMPACT ON LIFE WITHOUT THIS RULE.

1. TITLE OF RULE FILING:

Vermont Groundwater Protection Rule and Strategy

2. ADOPTING AGENCY:

Agency of Natural Resources

3. CATEGORY OF AFFECTED PARTIES:

LIST CATEGORIES OF PEOPLE, ENTERPRISES, AND GOVERNMENTAL ENTITIES POTENTIALLY AFFECTED BY THE ADOPTION OF THIS RULE AND THE ESTIMATED COSTS AND BENEFITS ANTICIPATED:

Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were used in numerous industrial coatings and treatment practices. The Agency of Natural Resources, in consultation with the Vermont Department of Health, has determined that the risks posed by PFOA and PFOS require formal action levels for response activities surrounding PFOA and PFOS. Since the major manufacturers of PFOA and PFOS have phased out its use, it is not expected to have a significant impact on current businesses.

4. IMPACT ON SCHOOLS:

INDICATE ANY IMPACT THAT THE RULE WILL HAVE ON PUBLIC EDUCATION, PUBLIC SCHOOLS, LOCAL SCHOOL DISTRICTS AND/OR TAXPAYERS:

There will not be an impact on schools.

5. COMPARISON:

COMPARE THE ECONOMIC IMPACT OF THE RULE WITH THE ECONOMIC IMPACT OF OTHER ALTERNATIVES TO THE RULE, INCLUDING NO RULE ON THE SUBJECT OR A RULE HAVING SEPARATE REQUIREMENTS FOR SMALL BUSINESS:

The adoption of health advisories for PFOA and PFOS were done in accordance with derivation methodologies established by the Vermont Department of Health following the review of toxicological data that is available on these two contaminants. PFOA and PFOS have been released to the environment and ANR and VDH

believe that chronic exposure to these chemicals may lead to cancer and noncancer health impacts. The ANR has determined that any economic benefit that may be gained by greater exposure is not justified when considering the potential health outcomes and deviation from VDH's derivation methodology would result an arbitrary and unsupported standard.

6. FLEXIBILITY STATEMENT:

COMPARE THE BURDEN IMPOSED ON SMALL BUSINESS BY COMPLIANCE WITH THE RULE TO THE BURDEN WHICH WOULD BE IMPOSED BY ALTERNATIVES CONSIDERED IN 3 V.S.A. § 832a:

As stated above, the standards established for PFOA and PFOS represent the appropriate manner to respond to releases of PFOA and PFOS.

7. GREENHOUSE GAS IMPACT: *EXPLAIN HOW THE RULE WAS CRAFTED TO REDUCE THE EXTENT TO WHICH GREENHOUSE GASES ARE EMITTED, EITHER DIRECTLY OR INDIRECTLY, FROM THE FOLLOWING SECTORS OF ACTIVITIES:*

A. TRANSPORTATION —

IMPACTS BASED ON THE TRANSPORTATION OF PEOPLE OR PRODUCTS (e.g., "THE RULE HAS PROVISIONS FOR CONFERENCE CALLS INSTEAD OF TRAVEL TO MEETINGS" OR "LOCAL PRODUCTS ARE PREFERENTIALLY PURCHASED TO REDUCE SHIPPING DISTANCE. "):

None

B. LAND USE AND DEVELOPMENT —

IMPACTS BASED ON LAND USE AND DEVELOPMENT, FORESTRY, AGRICULTURE ETC. (e.g., "THE RULE WILL RESULT IN ENHANCED, HIGHER DENSITY DOWNTOWN DEVELOPMENT." OR "THE RULE MAINTAINS OPEN SPACE, FORESTED LAND AND /OR AGRICULTURAL LAND. "):

None

C. BUILDING INFRASTRUCTURE —

IMPACTS BASED ON THE HEATING, COOLING AND ELECTRICITY CONSUMPTION NEEDS (e.g., "THE RULE PROMOTES WEATHERIZATION TO REDUCE BUILDING HEATING AND COOLING DEMANDS." OR "THE PURCHASE AND USE OF EFFICIENT ENERGY STAR APPLIANCES IS REQUIRED TO REDUCE ELECTRICITY CONSUMPTION. "):

None

D. WASTE GENERATION / REDUCTION —

IMPACTS BASED ON THE GENERATION OF WASTE OR THE REDUCTION, REUSE, AND RECYCLING OPPORTUNITIES AVAILABLE (e.g., "THE RULE WILL RESULT IN

REUSE OF PACKING MATERIALS.” OR “AS A RESULT OF THE RULE, FOOD AND OTHER ORGANIC WASTE WILL BE COMPOSTED OR DIVERTED TO A ‘METHANE TO ENERGY PROJECT.’”):

None

E. OTHER —

IMPACTS BASED ON OTHER CRITERIA NOT PREVIOUSLY LISTED:

None

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Administrative Procedures – Public Input Statement

Instructions:

In completing the public input statement, an agency describes what it did do, or will do to maximize the involvement of the public in the development of the rule. This form must be completed for the following filings made during the rulemaking process:

- Proposed Rule Filing
- Final Proposed Filing
- Adopted Rule Filing
- Emergency Rule Filing

1. TITLE OF RULE FILING:

Vermont Groundwater Protection Rule and Strategy

2. ADOPTING AGENCY:

Agency of Natural Resources

3. PLEASE LIST THE STEPS THAT HAVE BEEN OR WILL BE TAKEN TO MAXIMIZE PUBLIC INVOLVEMENT IN THE DEVELOPMENT OF THE PROPOSED RULE:

The Agency will be reaching out to several companies that used perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) to ascertain whether they are continuing to use PFOA or PFOS. The Agency will also reach out to business and trade organizations, such as the Associated Industries of Vermont.

4. BEYOND GENERAL ADVERTISEMENTS, PLEASE LIST THE PEOPLE AND ORGANIZATIONS THAT HAVE BEEN OR WILL BE INVOLVED IN THE DEVELOPMENT OF THE PROPOSED RULE:

See above response.

Run Spell Check

Administrative Procedures – Scientific Information Statement

Instructions:

In completing the Scientific Information Statement, an agency shall provide a brief summary of the scientific information including reference to any scientific studies upon which the proposed rule is based, for the purpose of validity.

This form is only required when a rule relies on scientific information for its validity.

1. TITLE OF RULE FILING:

Groundwater Protection Rule and Strategy

2. ADOPTING AGENCY:

Agency of Natural Resources

3. BRIEF EXPLANATION OF SCIENTIFIC INFORMATION:

The referenced scientific information supports the Agency of Natural Resources' determination that PFOA is toxic, persists for an extended period in nature, that causes and contributes to adverse chronic effects on the health of persons including being a suspected carcinogen.

4. CITATION OF SOURCE DOCUMENTATION OF SCIENTIFIC INFORMATION:

March 16, 2016. Perfluorooctanoic acid (PFOA) Interim Groundwater Standard and Vermont Health Advisory, issued by the Vermont Departments of Environmental Conservation and Health.

Post, G.B., Cohn, Perry, & Cooper, Keith R. 2012. Perfluorooctanoic acid (PFOA), an emerging drinking water contaminant: A critical review of recent literature, Environ. Res. (2012), <http://dx.doi.org/10.1016/j.envres.2012.03.007> Journal of Environmental Research, .2012.03.007

Table 2 and elsewhere details potential health risks from PFOA

Barry, Vaughn, Winqvist, Andrea and Steenland, Kyle, 2013 Perfluorooctanoic Acid (PFOA) Exposures and Incident Cancers among Adults Living Near a Chemical Plant, Environmental Health Perspectives, Volume 121, no 11-12 November - December 2013

Stahl, Thorsten, Mattern, Daniela, & Brunn, Hubertus 2011, Toxicology of perfluorinated compounds, Environmental Sciences Europe 2011, 23:38

<http://www.enveurope.com/content/23/1/38>

Minnesota Department of Health, Chemicals of High Concern list, July 1, 2013

<http://www.health.state.mn.us/divs/eh/hazardous/topics/toxfreekids/chclist/mdhchc2013.pdf>

DRAFT TOXICOLOGICAL PROFILE FOR PERFLUOROALKYLS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, Public Health Service, Agency for Toxic Substances and Disease Registry, August 2015

<http://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>

US EPA Draft health effects document for PFOA

[https://peerreview.versar.com/epa/pfoa/pdf/Health-Effects-Document-for-Perfluorooctanoic-Acid-\(PFOA\).pdf](https://peerreview.versar.com/epa/pfoa/pdf/Health-Effects-Document-for-Perfluorooctanoic-Acid-(PFOA).pdf)

Environmental risk limits for PFOS, A proposal for water quality standards in accordance with the Water Framework Directive" (The Netherlands)

<http://www.rivm.nl/bibliotheek/rapporten/601714013.pdf>

Association between Serum Perfluorooctanoic Acid
(PFOA) and Thyroid Disease in the U.S. National
Health and Nutrition Examination Survey

David Melzer, Neil Rice, Michael H. Depledge, William
E. Henley, Tamara S. Galloway

<http://ehp.niehs.nih.gov/0901584/>

Available on internet only

U.S. Environmental Protection Agency Office of Water
(4304T) Health and Ecological Criteria Division

Washington, DC 20460

EPA Document Number: 822R14002 Date: February 2014

<http://nepis.epa.gov/Exe/ZyPDF.cgi/P100IS6H.PDF?Dockey=P100IS6H.PDF>

DRAFT DOCUMENT

5. INSTRUCTIONS ON HOW TO OBTAIN COPIES OF THE SOURCE
DOCUMENTS OF THE SCIENTIFIC INFORMATION FROM THE
AGENCY OR OTHER PUBLISHING ENTITY:

Materials are available on the web or are available
for review at the Agency of Natural Resources.

Run Spell Check

