

## ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

<b>1. Type of Estimate and Analysis</b> <input checked="" type="checkbox"/> Original <input type="checkbox"/> Updated <input type="checkbox"/> Corrected	<b>2. Date</b> 9/2/21
<b>3. Administrative Rule Chapter, Title and Number (and Clearinghouse Number if applicable)</b> NR 159 – Management of Class B Firefighting Foam	
<b>4. Subject</b> Regulating firefighting foam that contains certain contaminants. WA-07-20	
<b>5. Fund Sources Affected</b> <input type="checkbox"/> GPR <input type="checkbox"/> FED <input type="checkbox"/> PRO <input type="checkbox"/> PRS <input type="checkbox"/> SEG <input type="checkbox"/> SEG-S	<b>6. Chapter 20, Stats. Appropriations Affected</b> --
<b>7. Fiscal Effect of Implementing the Rule</b> <input checked="" type="checkbox"/> No Fiscal Effect <input type="checkbox"/> Increase Existing Revenues <input type="checkbox"/> Increase Costs <input type="checkbox"/> Decrease Costs <input type="checkbox"/> Indeterminate <input type="checkbox"/> Decrease Existing Revenues <input type="checkbox"/> Could Absorb Within Agency's Budget	
<b>8. The Rule Will Impact the Following (Check All That Apply)</b> <input type="checkbox"/> State's Economy <input checked="" type="checkbox"/> Specific Businesses/Sectors <input checked="" type="checkbox"/> Local Government Units <input type="checkbox"/> Public Utility Rate Payers <input checked="" type="checkbox"/> Small Businesses <b>(if checked, complete Attachment A)</b>	
<b>9. Estimate of Implementation and Compliance to Businesses, Local Governmental Units and Individuals, per s. 227.137(3)(b)(1).</b>  Approximately \$2,300,000 per year is reasonably expected, with \$4,000,000 per year as the higher end of the range.  Potential additional compliance cost related to additional storage, containment, treatment and disposal costs for firefighting foam with intentionally-added PFAS (foam) incurred by fire departments are not known yet. The department is actively soliciting information on potential compliance costs that are not currently known and will update the total compliance cost if/when we receive data from impacted entities.  The estimated costs herein are based exclusively upon outreach conducted during the emergency rule writing process for the corresponding emergency rule, Board Order WA-06-20(E), in 2020. While the previous order and Economic Impact Report for emergency rule WA-06-20(E) both indicated that additional outreach would be conducted during the permanent rule writing process, the department has determined that this additional input would be obtained through the public comment period for this EIA. The most recent correspondence from the Wisconsin State Fire Chiefs Association on June 14, 2021 indicated that the rule would have a limited impact and there are limited Wisconsin fire departments that currently test with foam that contains intentionally added PFAS. As of the date of this EIA, the department has not received additional input from the Wisconsin State Fire Chiefs Association. The portions of emergency rule WA-06-20(E) that were suspended by JCRAR have been omitted from this rule. This results in a proposed permanent rule that is less expensive to implement because it is more limited in scope. This proposed permanent rule is consistent with common business best practices already in place from the entities affected by this proposed permanent rule. This proposed permanent rule only applies to treatment and disposal of intentionally-added PFAS-containing firefighting foams in Wisconsin that are generated as a result of activities regulated in this proposed permanent rule.	
<b>10. Would Implementation and Compliance Costs Businesses, Local Governmental Units and Individuals Be \$10 Million or more Over Any 2-year Period, per s. 227.137(3)(b)(2)?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>11. Policy Problem Addressed by the Rule</b>  The department is proposing the creation of ch. NR 159, Wis. Adm. Code. The purpose of this rulemaking is to implement the non-statutory provisions under 2019 Wisconsin Act 101 ("Act 101"), which created s. 299.48, Wis. Stats.	

## **ADMINISTRATIVE RULES**

### **Fiscal Estimate & Economic Impact Analysis**

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a group of synthetic chemicals used in industry and consumer products worldwide since the 1950s. They do not break down in the environment for extremely long periods of time and they accumulate in the human body. Exposure to certain PFAS may cause adverse health effects. Some firefighting foams currently used to extinguish flammable liquid fires, including Class B and Class A/B foams, include intentionally added PFAS, meaning PFAS is a constituent of the foam.

Section 299.48(1), Wis. Stats., prohibits the use of Class B firefighting foams with intentionally added PFAS, including for training exercises. Section 299.48(2), Wis. Stats., provides the use of foam is allowed for emergency firefighting, fire prevention operations, and testing purposes so long as certain requirements are met. These prohibitions and requirements are included in the proposed permanent rule and apply to foam that is in concentrate or that is mixed with water, liquids or other substances. Discharge of foam is prohibited to a storm or sanitary sewer or to the environment unless the discharge meets the requirements of the proposed permanent rule.

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#### 12. Summary of the Businesses, Business Sectors, Associations Representing Business, Local Governmental Units, and Individuals that may be Affected by the Proposed Rule that were Contacted for Comments.

Potentially affected parties include three main types of sectors: (1) entities using foam for emergency fire fighting or fire prevention operations; (2) entities using foam for testing, including foam and foam equipment testing facilities that test firefighting foam effectiveness or test a firefighting foam delivery system or equipment; and (3) entities that contain, treat, and dispose or store foam from a testing facility or generated as a result of testing foam. The department solicited comments on this EIA from all sectors. In addition to the broad notice soliciting comments, the department solicited comments from the following entities:

- Wisconsin Airport Management Association
- Wisconsin State Fire Chiefs Association
- League of Wisconsin Municipalities
- Wisconsin Towns Association
- Wisconsin Technical College System
- Wisconsin Department of Safety and Professional Services
- Wisconsin Department of Transportation
- Major private entities in the manufacturing and testing industry
- Wisconsin Business Associations
- Wisconsin Environmental Groups
- Other Interested Public

Some of the entities listed above were contacted during the emergency rulemaking process to establish compliance costs and to ascertain the potential impacts of this rule on respective entities.

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#### 13. Identify the Local Governmental Units that Participated in the Development of this EIA.

The department will continue to work with local governments and fire department associations that may be potentially impacted to develop this economic impact analysis. League of Wisconsin Municipalities, Wisconsin Towns Association and Wisconsin County Association were contacted for the opportunity to participate in the final EIA.

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#### 14. Summary of Rule's Economic and Fiscal Impact on Specific Businesses, Business Sectors, Public Utility Rate Payers, Local Governmental Units and the State's Economy as a Whole (Include Implementation and Compliance Costs Expected to be Incurred)

The discharge of PFAS to the environment may impose costs on both public and private entities and members of the public. Under ch. 292, Wis. Stats., any person who uses firefighting foam with intentionally added PFAS that results in a

## ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

hazardous substance discharge to the environment must take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands or waters of this state. The costs for appropriate containment, treatment, disposal and storage of firefighting foam containing intentionally added PFAS under s. 299.48, Wis. Stats., and the proposed permanent rule are anticipated to be less than the costs that otherwise would result from uncontrolled discharges of PFAS to the environment. As of June 2021, there had been approximately 36 PFAS firefighting foam spills reported to department and approximately 20 of these occurred since April 2018. The primary economic implications of the rule are related to containment, treatment, and disposal or storage measures for foam containing intentionally added PFAS for testing facilities or for public or private entities that conduct those activities.

### (A) Economic Impact on Specific Business and Business Sectors:

The department evaluated the costs for entities that use PFAS foam for testing, including foam and foam equipment testing facilities that test firefighting foam effectiveness or test firefighting foam delivery systems or equipment, and entities that contain, treat, and dispose or store foam from a testing facility or generated as a result of testing foam.

- i. Prohibitions and use: no economic impact anticipated. The proposed permanent rule does not ban use for firefighting or fire prevention and does not regulate disposal of foam. It conditionally allows for testing of fire suppression systems.
- ii. Notification: minimal economic impact if any. When testing foam, public or private systems must immediately notify the department of any discharge of foam to the environment. This is a statutory requirement found in s. 299.48(3m)(b), Wis. Stats., repeated in this proposed permanent rule. Notification cost is anticipated to be minimal to none.
- iii. Recordkeeping: minimal economic impacts. Management of existing documentation of safety data sheets creates minimal new paperwork requirements. The recordkeeping cost that may be reasonably expected is minimal.
- iv. Storage at testing facilities: minimal additional economic impact expected on managing foam generated as a result of testing. New requirements for facilities may lead to the purchase of additional storage/containers needed for foam, additional labor costs associated with labeling and inspection, and the purchase of materials to prevent discharge to the environment. There will be additional costs associated with these requirements, but these are not anticipated to be significant. The total costs that are estimated in the next section below include storage costs.
- v. Containment, treatment and disposal at testing facilities: moderate economic impact expected, additional estimates under solicitation and evaluation by the department. It is estimated that there are approximately 150-200 fixed fire suppression systems within public and private facilities that utilize Class B firefighting foam. A limited survey of facilities with fixed-foam systems indicated that these fixed systems are primarily in areas with existing containment, resulting in minimal to no economic impact. Industry experts estimated that system testing and resultant foam disposal costs will increase for these facilities, and cost approximately \$3,000 to \$20,000 per facility. Assuming 200 facilities in the State, the statutory and rule requirements would range in impact from approximately \$600,000 to \$4,000,000 per year, with the median estimate of \$2,300,000. This is a high cost estimate because some of these costs would already be incurred as a result of s. 299.48, Wis. Stats., which prohibits discharging foam into a storm or sanitary sewer. Costs are also expected to lessen over time with adoption of alternative methods such as surrogate and water equivalency testing and using replacement foams that do not contain PFAS. Other state laws, such as Chapter 289, Wis. Stats., may also apply to disposal of foam.

Additionally, some manufacturers with foam testing operations in Wisconsin have been phasing out the use of PFAS in foam products and testing with PFAS foam, which may continue as non-PFAS alternatives become more readily available. Any current system tests that generate Class B foam with intentionally added PFAS must use appropriate containment, treatment, and disposal or storage methods. Although they are not small businesses, the department is aware of only a few foam manufacturing facilities in Wisconsin that would conduct testing. One

## **ADMINISTRATIVE RULES**

### **Fiscal Estimate & Economic Impact Analysis**

manufacturer is developing its own treatment facility and others may be using contractors to collect and manage foam generated from testing. The foam manufacturer building a new testing facility expressed to the department that it had plans to transition from manufacturing foam with PFAS to manufacturing and testing foams that are PFAS-free.

#### **(B) Economic and Fiscal Impact on Local Government Units and Public Entities**

- i. Prohibitions and use: no additional economic impacts are anticipated. The proposed permanent rule does not ban use for firefighting or fire prevention and does not regulate disposal of foam
- ii. Notification: no additional economic impacts are anticipated. Fire departments must report discharges to the environment and provide safety data sheets, but costs are anticipated to be minimal to none.
- iii. Recordkeeping: no additional economic impacts are anticipated. minimal economic impacts. Management of existing documentation of safety data sheets creates minimal new paperwork requirements. The recordkeeping cost that may be reasonably expected is minimal
- iv. Storage at testing facilities: minimal additional economic impacts from this proposed permanent rule are anticipated. If fire departments use foam for testing purposes, new requirements for storage may lead to the purchase of additional storage/containers needed for foam, additional labeling and inspection, and the purchase of materials to prevent discharge to the environment. There will be additional costs associated with these requirements, but these costs are not anticipated to be significant. The department has solicited data on anticipated storage costs for fire departments as a result of testing through the Wisconsin State Fire Chiefs Association. The most recent correspondence from the Wisconsin State Fire Chiefs Association on June 14, 2021 indicated that there are limited Wisconsin fire departments that currently test with foam that contains intentionally added PFAS.
- v. Containment, treatment and disposal at testing facilities: minimal additional economic impacts are anticipated. If fire departments use foam for testing purposes, they must use appropriate containment, treatment, and disposal or storage methods for foam generated by testing, if treated or disposed of in Wisconsin. We anticipate that the additional costs would be minimal because fire departments are already typically disposing of firefighting foam at licensed facilities. Fire departments are also converting to testing with non-PFAS foams. The department has solicited data on anticipated containment, treatment and disposal costs for fire departments as a result of testing through the Wisconsin State Fire Chiefs Association. Other state laws, such as Chapter 289, Wis. Stats., may also apply to disposal of foam

#### **(C) Fiscal Impact on the department: The proposed permanent rule is intended to be substantially self-implementing and no additional costs are expected to be incurred by the department.**

- i. Prohibitions and use: self-implementing, no fiscal impact. The department's Forestry Division determined that it currently does not use any firefighting foam with intentionally added PFAS.
- ii. Notification and recordkeeping: no fiscal impact.
- iii. Recordkeeping: no fiscal impact.

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#### **15. Benefits of Implementing the Rule and Alternative(s) to Implementing the Rule**

Section 299.48 (5), Wis. Stats., requires the department to promulgate rules to implement and administer the section, including to determine appropriate containment, treatment, and disposal or storage measures for testing facilities.

Benefits of implementing the proposed permanent rule include reduction in the discharge of PFAS to the environment and the very significant potential costs savings of avoiding the need to cleanup PFAS discharges. PFAS accumulate in

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## ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

the environment and in the human body, and exposure to certain PFAS may cause adverse health effects.

According to the U.S. EPA<sup>1</sup>, the documented adverse health effects of PFOA and PFOS include:

- Developmental effects to fetuses during pregnancy or to breastfed infants (e.g., low birth weight, accelerated puberty, skeletal variations);
- Cancer (e.g., testicular, kidney);
- Liver effects (e.g., tissue damage);
- Immune effects (e.g., antibody production and immunity); and
- Thyroid effects and other effects (e.g., cholesterol changes).

### Potential Costs Associated with PFOA/PFOS Contamination, if Left Unregulated

#### A. Healthcare Costs:

To account for costs incurred to the State of Wisconsin as a result of not promulgating a PFOS/PFOA rule, the department analyzed two reports with health data linked to exposure to PFAS. Given that data specific to Wisconsin is not yet available, it is difficult to quantify PFOS/PFOA related health impacts in Wisconsin. For the purpose of this EIA, health impacts studies presented here and the value transfer methods used to estimate potential Wisconsin specific health impacts are based on a number of assumptions.

The first study estimated that the total cost of PFOA-attributable low birthweight births in the United States for 2003 through 2014 was \$13.7 billion<sup>2</sup>. These costs included the direct hospital costs at the time of birth as well as lost economic productivity due to low birthweight births being associated with a variety of longer-term outcomes including lower lifetime earning potential.

The department does not have data on PFOS/PFOA- attributable health incidents in Wisconsin. Using a value transfer method, we assumed a linear relationship between impacts of PFOA – attributable low birthweight births quantified by Malits et al. (2018) and the total United States population. The department estimates that, based on 1.8% of the US population living in Wisconsin, the total costs due to low birth weight from PFOA exposure for the period (2003 – 2014) studied by Malits et al. (2018) to be \$246.6 million (approx. \$ 276.2 million in 2021 dollars). This cost value is likely not robust, given that this is an extrapolation based on non-specific population data. However, it shows that there is some economic health benefit (avoided cost) to promulgation of these proposed thresholds of public health significance.

The second study examined background exposure to PFOA as it relates to widespread occurrence of hypertension. This study estimated that approximately 10.3 million Europeans would develop hypertension because of this exposure, which would cost Europe an estimated €10.7 – 35 billion<sup>3</sup> annually (\$12.6 - \$41.3 billion USD) Again, to use the value transfer method, the department assumed a linear relationship between European population and the estimated cost attributable to PFOA exposure. The department also assumed that the occurrence of PFOA-exposure related hypertension in the European population is the same in the United States as well as Wisconsin. Applying this occurrence to Wisconsin, and

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<sup>1</sup> United States Environmental Protection Agency. Basic Information on PFAS. <https://www.epa.gov/pfas/basic-information-pfas#health2>

<sup>2</sup> Malits J, Blustein J, Trasande L, Attina TM. 2018. Perfluorooctanoic acid and low birth weight: estimate of US attributable burden and economic costs from 2003 through 2014. *International Journal of Hygiene and Environmental Health* 221: 269-275.

<sup>3</sup> Goldenman, Gretta, et al. 2019. The cost of inaction: A socioeconomic analysis of environmental and health impacts linked to exposure to PFAS. Nordic Council of Ministers. <https://norden.diva-portal.org/smash/get/diva2:1295959/FULLTEXT01.pdf>

## ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

taking the lower end of that range, it's estimated that it would cost the state \$99.9 million annually (approx. 103.9 million in 2021 dollars).

It is important to note that the two studies cited above were specific to PFOA and low birthweights and hypertension. Total health-related costs associated with total PFAS reported by Goldenman, Gretta, et al. (2019) were between €52 billion to €84 billion annually in Europe, which could be several billions of dollars for United States and hundreds of millions for Wisconsin if the quantified values are transferred<sup>4</sup>

### B. Recreation Value Lost:

Damage to surface water with PFOS will potentially result in a decrease in use and non-use economic value. Sunding (2017), in a study of the impact of PFOS advisory on a water body and its effect on public visitation to parks estimated that a PFOS advisory decreases the total park visitations by approximately 2.9% (upper bound of 5.9%) within the Minneapolis metropolitan area<sup>5</sup>.

This study also found that the economic value of damage to anglers as a result of PFOS contamination in three Minneapolis-area counties (Washington, Dakota, Ramsey) was \$28.48 per trip (approx. \$31.50 in 2021 dollars) for both popular and unpopular species. If the water body is assumed to have a current mercury advisory, the damage related to a PFOS advisory is estimated to be \$18 (approx. \$19.91 in 2021 dollars).

Using the average fishing trip per angler (0.51), the total number of anglers (433,603) and a conservative angler average value loss of \$18, Sunding (2017), estimated that the annual damage of PFOS contamination to the tri-county anglers to be 3.87 million dollars per year (approx. \$4.28 million in 2021 dollars).

Out of 35 water bodies (mostly in the Madison Metro area) tested by the department, 12 PFOS fish advisories have been issued since 2006<sup>6</sup>. This represents approximately 34% of water bodies tested. Given that there are hundreds of recreational water bodies in Wisconsin, it is plausible to assume that PFOS advisories will be issues on more water bodies as the department continues its testing efforts to protect public health. The value of economic damage to anglers can be significant if Wisconsin anglers place a similar value on the damage caused by PFOS advisories as the Minneapolis area anglers (\$18 per trip). As a reference, the WDNR estimates that 1.3 million anglers fished in Wisconsin on average 17 days in a year<sup>7</sup>.

Alternatives to implementing this rule primarily consist of (1) not implementing the rule and relying entirely on the statutory authority of s. 299.48, Wis. Stats.; or (2) implementing a more robust rule to prevent any discharge of PFAS to the environment from the testing of Class B foams. The department is pursuing this rule to fulfill its statutory objective and rejects the first alternative because this rule helpfully provides more specific narrative types of treatment technology at testing facilities, codifies best management practices for storage, and clarifies the need for retention of safety data sheets for entities that test these foams to improve the understanding of what foam products are in use. The department is not pursuing the second alternative to ensure consistency with the emergency rule in effect.

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<sup>4</sup> Environmental Science and Technology. The True Cost of PFAS and the Benefits of Acting Now.  
<https://pubs.acs.org/doi/10.1021/acs.est.1c03565>

<sup>5</sup> Sunding DL. 2017. Damage to Minnesota's Natural Resources Resulting from 3M's Disposal of PFASs in Washington County, MN. Prepared for the State of Minnesota in the matter of the State of Minnesota v. 3M Company. September 22, 2017.

<sup>6</sup> <https://dnr.wisconsin.gov/topic/PFAS/Advisories.html>

<sup>7</sup> <https://dnr.wisconsin.gov/topic/Fishing/outreach/AdvertisingFishRegulations.html>

## ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

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### 16. Long Range Implications of Implementing the Rule

Long range fiscal implications of the rule are related to containment, treatment, and disposal or storage measures. The benefits of implementing the rule could lead to an overall fiscal benefit because of the reduction of PFAS impacting the environment, reduced need for clean-up, and reduced impact on human health.

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### 17. Compare With Approaches Being Used by Federal Government

The federal Defense Authorization Act of 2020 (the Act) included several PFAS-related provisions, largely because PFAS contamination of water supplies have been identified at or around several military installations. The Act specifies in section 323 that PFAS-containing firefighting foam may only be released for purposes of an emergency response. A non-emergency release of PFAS foam may be made for the purposes of testing of equipment or training of personnel, if complete containment, capture, and proper disposal mechanisms are in place to ensure no foam is released into the environment. It also requires the military to develop a fluorine-free foam specification by January 31, 2023 and sets a deadline for banning the use on military bases in the future.

The Act establishes guidelines for the proper disposal of firefighting foam at military sites and directs the military to develop guidance to address these issues. Specifically, all incineration of firefighting foam containing PFAS chemicals must be conducted at a temperature range adequate to break down PFAS chemicals, while also ensuring the maximum degree of reduction in emission of PFAS chemicals and must be conducted in accordance with the Clean Air Act at a facility permitted to receive the waste. The Act also requires the Environmental Protection Agency (EPA) to publish interim guidance on the destruction and disposal of PFAS substances and materials. A draft of the guidance was released for public comment on December 18, 2020

The Federal Aviation Administration (FAA) Reauthorization Act of 2018 was passed on October 5, 2018 and states that no later than three years after the date of enactment, the FAA shall no longer require the use of fluorinated chemicals (e.g. PFAS) to meet the performance standards accepted under federal regulations. As a result of this change, the FAA and FAA-regulated facilities will no longer be required to use firefighting foams that contain PFAS.

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### 18. Compare With Approaches Being Used by Neighboring States (Illinois, Indiana, Iowa, Michigan and Minnesota)

Illinois had legislation proposed in 2020, [SB3154](#), that would prohibit the knowing manufacture, sale, offering for sale, distribution for sale, or distribution for use of foam containing intentionally added PFAS. This legislation would also require manufacturers of foam containing intentionally added PFAS to register with the Illinois EPA and pay to the EPA an annual registration fee of \$5,000. This legislation wasn't voted upon but was re-introduced in 2021 as [SB0561](#). Additional proposed firefighting foam-related legislation, [HB5003](#), proposed prohibition of the use of foam containing intentionally added PFAS for training purposes and also testing purposes, unless the facility has implemented appropriate containment, treatment and disposal measures. This legislation wasn't voted upon but was re-introduced in 2021 as [HB3635](#) and [SB2512](#). Bill [HB3190](#) was also introduced in 2021 and proposes prohibition of incineration of any PFAS substance, including Aqueous Film Forming Foam .

Indiana's House Bill 1189 was signed into law on March 30, 2020 as [IC-36-8-10.7](#). This law prohibits the use of Class B firefighting foam containing an intentionally added PFAS: (1) for training purposes; and (2) for testing purposes, unless the testing facility has implemented appropriate measures to prevent releases of the firefighting foam to the environment.

As of May 2021, Iowa has a non-binding guidance "action plan" to identify and minimize PFAS exposures, prevent future releases, and provide education and outreach. [HF 2241](#) failed to pass last session. HF 2241 would have prohibited the manufacture and sale of firefighting foam containing PFAS, prohibited the use of PFAS foam for training purposes,

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## ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

and required manufacturers of firefighter protective equipment to disclose the inclusion of PFAS in their products. Iowa DNR is developing a plan to assess risk to public water supplies from PFAS and may sample the higher risk facilities in the future.

Michigan has created by executive order a PFAS action team to identify, recommend, and implement responses to PFAS contamination. In 2020 the Michigan Legislature enacted legislation focused on fire departments and fire fighter activities. The statutory changes from those acts include the creation of the following sections: [Section 324.14705](#), MCL, which establishes a PFAS firefighting foam collection program at the Department of Environment, Great Lakes, and Energy (EGLE), [Section 324.14703](#), MCL, which requires immediate reporting of the use of firefighting foams with intentionally added PFAS, [Section 29.369c](#), MCL, which bars the use of PFAS firefighting foam in firefighting training, and requires proper training for the emergency use, handling, storage, disposal and cleanup of PFAS foam, and [Section 408.1014r](#), MCL, which calls for rulemaking to be promulgated by the Department of Labor to establish best practices for handling and storing PFAS foam by emergency responders, ban the use of PFAS foam for training purposes, and to end the use of PFAS foam for equipment calibration unless certain stringent conditions have been met. Michigan recently announced it had collected and disposed of approximately 51,400 gallons of PFAS-containing firefighting foam through a clean sweep type program. Michigan recommends that fire departments use only Class A foam unless Class B foam is needed to protect human life or critical infrastructure, and that they train only with Class A foams.

Minnesota enacted legislation that took effect on July 1, 2020 ([Section 325F.072](#) of MN Statutes) requiring that any Class B firefighting foam containing PFAS that is used on a fire must be reported to the State Fire Reporting System within 24 hours. It also prohibits use of PFAS-containing firefighting foam for testing and training unless appropriate containment, treatment, and disposal measures are implemented to prevent releases of foam to the environment. Minnesota is currently working on guidance related to proper containment, treatment and disposal measures.

As of January 2021, Arizona, Georgia, Indiana (as mentioned above), Kentucky, Maryland, Minnesota (as mentioned above), Virginia and Wisconsin have enacted legislation prohibiting the use of foam with intentional added PFAS with a testing exemption. Of those states, Arizona, Indiana, Maryland, Minnesota, Virginia and Wisconsin include the word “appropriate” regarding the measures needed for containment, treatment and disposal. Wisconsin is the only state that directed an agency to conduct rulemaking regarding their PFAS-containing foam legislation. Wisconsin is the only state tasked with determining the “appropriate” measures to prevent discharges of PFAS-containing foam to the environment. New Hampshire’s ban on PFAS-containing foams included a provision that allowed for testing of Class B foams only if evaluated by their department of environment agency. The New Hampshire legislature did not direct the department to promulgate criteria for determining such evaluation

Washington, New York, and Colorado have prohibited the use of PFAS-containing foams with no exception for testing or emergency use and therefore have considerably more strict regulations than proposed in this permanent rule.

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19. Contact Name

Mimi Johnson

20. Contact Phone Number

(608) 590-7287

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This document can be made available in alternate formats to individuals with disabilities upon request.



## ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

### ATTACHMENT A

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1. Summary of Rule's Economic and Fiscal Impact on Small Businesses (Separately for each Small Business Sector, Include Implementation and Compliance Costs Expected to be Incurred)

The department does not know how many of the potentially impacted entities meet the statutory definition of small business. Without actual data on how many of these entities are small businesses, the department cannot estimate the actual cost to these entities as a share of the total compliance cost of this proposed permanent rule. However, in an effort to develop a conservative estimate, the department assumed a majority are small businesses. Based on this assumption, the department reasonably expects that the impact on small businesses will be less than the average compliance cost to all businesses (\$2,300,000 per year with \$4,000,000 per year as the higher end of the range for all businesses impacted).

Small businesses impacted by this proposed permanent rule include various facilities that use Class B firefighting foam in their fixed fire suppression systems. These would be facilities that have a need for suppression of possible liquid (gasoline, oil) fires. Small businesses would also be entities using foam for testing, including foam and foam equipment testing facilities that test firefighting foam effectiveness or test a firefighting foam delivery system or equipment; and entities that contain, treat, and dispose or store foam from a testing facility or generated as a result of testing foam.

Containment, treatment and disposal: moderate economic impact expected, additional estimates under solicitation and evaluation by the department. It is estimated that there are approximately 150-200 fixed fire suppression systems within public and private facilities that utilize Class B firefighting foam. A limited survey of facilities with fixed foam systems indicated that these fixed systems are primarily in areas with existing containment, resulting in minimal to no economic impact. Industry experts estimated that system testing and resultant foam disposal costs will increase for these facilities, and cost approximately \$3,000 to \$20,000 per facility. Assuming 200 facilities in the state, the statutory and rule requirements would range in impact from approximately \$600,000 to \$4,000,000 per year, with the midpoint estimate of \$2,300,000. This is a high cost estimate because some of these costs would already be incurred as a result of s. 299.48, Wis. Stats., which prohibits discharging foam into a storm or sanitary sewer. Costs are also expected to lessen over time with adoption of alternative methods such as surrogate and water equivalency testing and using replacement foams that do not contain PFAS.

Additionally, some manufacturers with foam testing operations in Wisconsin have been phasing out the use of PFAS in foam products and testing, which may increase as alternatives become more readily available. Any current system tests that generate Class B foam with intentionally added PFAS must use appropriate containment, treatment, and disposal or storage methods. Although they are not small businesses, the department is aware of only a few foam manufacturing facilities in Wisconsin that would conduct testing. One manufacturer is developing its own treatment facility and others may be using contractors to collect and manage foam generated from testing.

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2. Summary of the data sources used to measure the Rule's impact on Small Businesses

Emails and calls were made to industry experts and facilities with fixed foam systems to determine foam amounts; any existing containment, storage, treatment, and disposal activities; testing activities; and current and potential costs.

Industry sectors and foam manufacturing facilities were also contacted for comments on draft emergency rule language during rule development.

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3. Did the agency consider the following methods to reduce the impact of the Rule on Small Businesses?

- Less Stringent Compliance or Reporting Requirements
  - Less Stringent Schedules or Deadlines for Compliance or Reporting
  - Consolidation or Simplification of Reporting Requirements
  - Establishment of performance standards in lieu of Design or Operational Standards
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## ADMINISTRATIVE RULES

### Fiscal Estimate & Economic Impact Analysis

- Exemption of Small Businesses from some or all requirements  
 Other, describe:

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4. Describe the methods incorporated into the Rule that will reduce its impact on Small Businesses

This proposed permanent rule is self-implementing and allows entities to choose containment, storage, treatment, and disposal methods that fit best with their facility designs and needs, while at the same time providing standards that will prevent discharge of foam to the environment. Entities may also elect to treat and dispose of PFAS foams outside the state. The provided standards and methods for the prevention of discharge of foam to the environment can help businesses avoid more costly cleanup procedures. The reporting and recordkeeping requirements provided in the rule impact all entities and increased associated costs are estimated to be minimal.

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5. Describe the Rule's Enforcement Provisions

Under authorization in ch. 299, Wis. Stats., the rule shall be enforced by the attorney general (s. 299.95, Wis Stats.) and penalties and remedies may be assessed under s. 299.97, Wis. Stats.

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6. Did the Agency prepare a Cost Benefit Analysis (if Yes, attach to form)

- Yes  No
-