

ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

1. Type of Estimate and Analysis <input checked="" type="checkbox"/> Original <input type="checkbox"/> Updated <input type="checkbox"/> Corrected	2. Date 5/27/21
3. Administrative Rule Chapter, Title and Number (and Clearinghouse Number if applicable) Chapter NR 229 – Dental Office	
4. Subject Regulation of wastewater discharges from dental offices to sanitary sewers (Board Order WY-14-19)	
5. Fund Sources Affected <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	6. Chapter 20, Stats. Appropriations Affected There is minimal to no economic impact to s. 20.370(4)
7. Fiscal Effect of Implementing the Rule <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	
8. The Rule Will Impact the Following (Check All That Apply) <input type="checkbox"/> State's Economy <input type="checkbox"/> Specific Businesses/Sectors <input type="checkbox"/> Local Government Units <input type="checkbox"/> Public Utility Rate Payers <input checked="" type="checkbox"/> Small Businesses (if checked, complete Attachment)	
9. Estimate of Implementation and Compliance to Businesses, Local Governmental Units and Individuals, per s. 227.137(3)(b)(1). \$1,224,186.96 per year	
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)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
11. Policy Problem Addressed by the Rule The proposed rule would regulate dental offices that discharge amalgam-containing wastewater into municipal wastewater treatment plants. Although the scope statement for this rule also mentions pursuing clarifying language to permit pretreatment facilities, after further examination, the department elected not to pursue this change at this time. The rule's pretreatment standards apply to dental offices that place or remove dental amalgam, i.e., metal dental fillings, from patients' teeth and regulate the wastewater discharges from those activities. These standards require subject offices to install, operate and maintain rule-compliant solids separators to treat all amalgam process wastewater and to comply with two best management practices, which will reduce the discharge of amalgam waste to a publicly owned treatment works (POTW). Existing dental offices in Wisconsin subject to the rule must have complied with these requirements by July 14, 2020 and have submitted submit a One-Time Compliance Report to the department or their local municipal pretreatment program if located in one, by October 12, 2020. The report provides certain basic information about the facility along with a certification that it does or does not place or remove amalgam and, if applicable, that the facility will continue to operate and maintain a rule-compliant separator and implement the two best management practices. New dental offices subject to the rule, which began discharging to a POTW after July 14, 2017, must comply with the standards as of that date and submit a One-Time Compliance Report within 90 days of introducing wastewater to a POTW.	
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. Entities impacted include facilities where the practice of dentistry is performed, including institutions, permanent or temporary offices, clinics, home offices, and facilities owned and operated by federal, state or local governments, that discharge wastewater to a POTW. Below is a list of contacted businesses, associations, and/or individuals affected by the rule: <ul style="list-style-type: none">• Dental offices that discharge amalgam-containing wastewater into municipal wastewater treatment plants.	

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- Wisconsin Dental Association (WDA).
- Wisconsin Wastewater Operators Association (WWOA).
- Wisconsin Manufacturers & Commerce (WMC).

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

The department solicited comments from local governmental units on this FE/EIA during the comment period. The following entities were contacted for information:

- Wisconsin County Association (WCA)
- League of Municipalities

No governmental units submitted comments.

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)

See attached spreadsheet document "*Draft of Separator Compliance Cost*" for cost, as well as a summary explanation on how the Separator Compliance Cost was determined, which is listed below.

By simply adopting the already-effective federal regulations, the economic impact on dental entities, local government units and small businesses, per year is estimated at \$1.2 M. The analysis considered that 60% of the dental facilities in Wisconsin (estimated 2,061 total facilities statewide) did not have the technology and equipment required, and as a result would have to install the required equipment to meet the federal regulations and proposed rule requirements, which brought the cost to an estimated \$909,847.97 per year. 40% of the 2,061 dental facilities with already installed technology would spend an estimated \$314,338.99 per year, which brings the annual total cost to \$1,224,186.96.

Summary of Compliance Cost Assessment:

The economic impact on dental entities, local government units and small businesses, is estimated to be **\$1,224,186.96 per year**.

A detailed assessment of the annualized cost and cost over 10 years is provided below.

Economic Impact on Private Business:

The analysis considered that 60% of the dental facilities in Wisconsin (estimated 2,061 total facilities) did not have the technology and equipment required, and as a result would have to install the required equipment to meet the federal regulations and requirements of the proposed rule.

Based on the result from a model developed by the U.S. Environmental Protection Agency (EPA), the average number of chairs in a typical dental office nationwide is between 1 and 5. This analysis assumed that the typical dental office in Wisconsin has 5 chairs. This analysis also assumed a 10-year life span for the technology and a social discount rate of 7%.

- **Entities with No Technology Installed**

EPA estimates the cost of equipment purchase and installation for a typical dental facility with a 5-chair capacity to be \$1,072.46. This estimate also includes the cost for completion of the One-Time Compliance Report.

Annual recurring cost after initial installation for entities without the technology already installed will be \$642.83 per year.

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The present value of total cost for purchase, installing, and maintenance of an amalgam separator is estimated to be \$5,903.48 per entity over a 10-year period.

In annualized terms, each establishment required to install a new rule-compliant technology will incur costs of approximately \$735.77 per year. The total annualized compliance cost for all entities that will be required to install the technology is approximately **\$909,847.97** per year.

- **Entities with Technology Installed**

This analysis assumes that these entities (40% of 2,061 entities) will not have to purchase new equipment to comply with federal regulations and the proposed rule revision. Therefore, there is zero cost of purchase and installation.

The EPA estimates that the annual recurring cost for entities with the technology already installed will be \$403.79. Annual recurring cost includes: Replacement parts, separator maintenance, recycling costs, inspection costs, all record-keeping costs, and any cost savings related to the technology change.

The present value of the annual recurring cost of maintaining an amalgam separator for a dental establishment with the technology already installed is estimated to be \$3,059.35 per entity over a 10-year period.

In annualized terms, each entity will incur costs of approximately \$381 per year. The total annualized compliance cost for all entities with the technology already installed is approximately **\$314,338.99** per year.

- **Annualized value of Compliance Cost Per Year for the Next 10 years (per year basis):**

Entities required to install new technology (\$909,847.97) + entities with the technology already installed (\$314,338.99) = **\$1,224,186.96 per year**

- **Total Compliance Cost Over a 10-Year Period**

Entities required to install new technology (\$7,300,239.34) + entities with the technology already installed (\$2,522,124.54) = **\$9,822,363.88**

References:

- “An Economic Study of Expanded Duties of Dental Auxiliaries in Colorado” (ADA, 2009). This study is called the “ADA Colorado Study” below. Based on a survey of 154 dental offices in Colorado, it provides a distribution of number of chairs by office.
- “2009 Survey of Dental Practice: Income from the Private Practice of Dentistry” (ADA, 2010). This study, called the “ADA National Study” below, indirectly reports a distribution of number of chairs by office.
- EPA-821-R-16-005 -Technical and Economic Development Document for the Final Effluent Limitations Guidelines and Standards for the Dental Category. (US-EPA, 2016)
- U.S. Census Bureau. 2017. 2017 Economic Census: Office of Dentists (NAICS 621210). EC1700BASIC.

See attached document “Draft of Separator Compliance Cost” for detailed Excel Spreadsheet on compliance cost.

Local Government, Municipalities & Utility Rate Payers:

The department does not anticipate that utility rate payers will be impacted by this rule.

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State Economy:

The department does not anticipate that the state's economy will be adversely impacted by this rule.

Fiscal Impacts:

The department anticipates that the estimated one-time impact administrative costs (\$30,915) will be absorbed within the current work schedule of department employees.

Besides the impacts described above, the department does not anticipate a negative fiscal impact to the agency/state as a result of this rule. Any additional staff time can be absorbed within the current work schedule of agency employees.

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

Implementing this rule will help in reducing mercury in the waters of the state, and its effect on the environment, which will directly help in protecting the health of people and aquatic organisms. Facilities where the practice of dentistry is performed, at a state and local level, will be able to understand how they can assist their local POTWs in pollution mitigation, and encourage practices that reduce amalgam.

By not implementing the rule, state and local outreach that occurs as a result of the rule implementation would be non-existent and would lessen the impact of the federal regulation that currently exists. Also, s. NR 211.34 (2), Wis. Adm. Code, requires the department to adopt these standards and requirements into the Wisconsin Administrative Code as soon as possible after promulgation of the related federal regulation.

Additionally, if this rule is not implemented, the department would be violating s. 283.11 (1), Wis. Stats., which states that the department shall promulgate by rule any pretreatment standards established by federal rule. If the rule is not implemented, dental offices would still be subject to the federal dental amalgam requirements under 40 CFR Part 441. However, dental offices would not be able to utilize a streamlined compliance process through the department if the department does not adopt a corresponding rule, and dental offices would be at greater risk of violating federal pretreatment regulations. Finally, refusal to adopt and implement these or any other federal regulations under the Clean Water Act could jeopardize EPA's delegation of National Pollutant Discharge Elimination System permitting and pretreatment authority to the state of Wisconsin.

16. Long Range Implications of Implementing the Rule

Implementing this rule will mitigate the financial burden of POTWs by reducing the amount of resources and monies set aside for mercury source reduction and/or pollution mitigation plans, thereby allowing these funds to assist in other areas of the POTWs that help to protect the waters of the state, its environment, and the communities that the POTWs serve.

17. Compare With Approaches Being Used by Federal Government

The implementation of the rule is in alignment with federal regulations and does not exceed the regulations established.

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

As of this date, Illinois, Iowa, Michigan and Minnesota do not have state regulations that regulate discharges from dental offices. All of these states are currently relying on the federal regulations.

19. Contact Name

Adebowale C. Adesanwo

20. Contact Phone Number

715-492-4047

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

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ATTACHMENT A

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 anticipates that the majority of entities (if not all) impacted by this rule are small businesses. As a result, the impact of this rule to small businesses will be the same as the broader impact of the rule to the business sector provided in section #14 of the 2049 form (attached).

The economic impact on dental entities, local government units, and small businesses per year is estimated at \$1.2 M. The analysis considered that 60% of the dental facilities in Wisconsin (estimated 2,061 total) did not have the technology and equipment required, and as a result would have to install the required equipment to meet the federal regulations and proposed rule, which brought the cost to an estimated at \$909,847.97 per year. An estimated 40% of the 2,061 dental entities with already installed technology would spend an estimated \$314,338.99 per year, which brings the annual total to \$1,224,186.96.

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

American Dental Association:

- "An Economic Study of Expanded Duties of Dental Auxiliaries in Colorado" (ADA, 2009).
- "2009 Survey of Dental Practice: Income from the Private Practice of Dentistry" (ADA, 2010).
- United States EPA:
- EPA-821-R-16-005 - Technical and Economic Development Document for the Final Effluent Limitations Guidelines and Standards for the Dental Category. (US-EPA, 2016)

U.S. Census Bureau. 2017:

- 2017 Economic Census: Office of Dentists (NAICS 621210). EC1700BASIC.

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

The department is obligated under s. 283.11 (1), Wis. Stats., to promulgate state pretreatment standards established by EPA, which this rule does for Wisconsin dental offices. Section 283.11 (2), Wis. Stats., requires that this, and all department rules, comply with and not exceed the requirements of the associated federal regulation.

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

This rule's impact on small businesses will be the same as that of the federal rule. The adoption of the federal rule by the state does not add an additional financial impact. The state rule mirrors and does not exceed the requirements of the federal rule.

5. Describe the Rule's Enforcement Provisions

Enforcement provisions are not included in the subsections of the rule affected by the proposed order. Department

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enforcement of violations of this, and all pretreatment standards promulgated by the department by rule, is authorized by s. 283.89, Wis. Stats.

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

Yes No
