

Report to  
Legislative Council Rules Clearinghouse  
NR 229, Wis. Adm. Code  
Natural Resources Board Order No. WY-14-19

**Wisconsin Statutory Authority**

The department is required to promulgate by rule effluent limitations, standards of performance for new sources, toxic effluent standards or prohibitions and pretreatment standards for any category or class of point sources established by the U.S. environmental protection agency (EPA) and for which that agency has promulgated any effluent limitations, toxic effluent standards or prohibitions or pretreatment standards for any pollutant under s. 283.11 (1), Wis. Stats.

**Federal Authority**

The EPA promulgated 40 CFR 441 – Dental Office Point Source Category, on June 14, 2017, which regulates the discharge of dental amalgam wastewater from dental offices to publicly owned treatment works (POTW), also known as municipal wastewater treatment plants.

**Comparison of Adjacent States**

Adjacent states have not enacted similar rules and are instead applying 40 CFR 441. Pretreatment programs in Illinois are directly administered by Region 5 of the EPA, so 40 CFR 441 is being used directly. Under s. NR 211.34 (2), Wis. Adm. Code, the department is required to adopt pretreatment standards or requirements as soon as possible after the promulgation of any federal regulation establishing pretreatment standards or requirements. The same rule promulgation requirement is also found in s. 283.11 (1), Wis. Stats. (see item 1., above).

**Court Decisions Directly Relevant**

None.

**Analysis of the Rule - Rule Effect - Reason for the Rule**

The proposed rule requires dental offices to control the discharge of mercury and other metals in dental amalgam to publicly owned treatment works (POTW) based on the best available technology or best available demonstrated control technology. Specifically, the requirements are based on the use of amalgam separators and best management practices recommended by the American Dental Association (ADA). The best management practices (BMPs) are:

- prohibiting the discharge of waste (or “scrap”) amalgam; and
- prohibition of the use of line cleaners that are oxidizing or acidic and that have a pH higher than 8 or lower than 6.

Amalgam separators are a practical, affordable, and readily available technology for capturing mercury and other metals before they are discharged into sewers that drain to POTWs. The mercury collected by these separators can be recycled. This rule also includes a provision to significantly reduce and streamline the oversight and reporting requirements in pretreatment regulations that would otherwise apply as a result of this rulemaking. The rule requires dental offices to meet a performance standard that includes BMPs and the use of an amalgam

separator(s) compliant with the 2008 International Organization for Standardization (ISO) 11143 standard (ISO, 2008), or the American National Standards Institute (ANSI)/ADA Specification 108 for Amalgam Separators (2009) with Technical Addendum (2011), (ANSI/ADA, 2009; ANSI/ADA, 2011). ISO, a voluntary standard setting organization, established a standard for measuring amalgam separator efficiency by evaluating the retention of amalgam solids using specified test procedures in a laboratory setting. In order to meet the ISO standard, a separator must achieve 95 percent removal or greater of total solids. The standard also includes requirements for instructions on the use, operation, and maintenance of amalgam separators (see proposed s. NR 229.03 (1) (a), Wis. Adm. Code).

The rule also includes a provision such that the performance standard can be met with the use of an amalgam removing technology other than an amalgam separator (equivalent device). This provision was included to incorporate future technologies that achieve comparable removals of pollutants from dental discharges as amalgam separators, but that may not fall under the amalgam separator classification.

Because the rule does not include a numerical limit, the performance standards also specify certain operation and maintenance requirements for the amalgam separator(s) or comparable device to ensure they are operated optimally. In addition to installing one or more amalgam separators compliant with the ISO 11143 standard (or its equivalent) and implementing the required BMPs, the pretreatment standards specify certain operating and maintenance requirements for the amalgam separator. These requirements include:

- documented amalgam separator inspection as specified by the manufacturer's user manual to ensure the separator is performing properly and to confirm that all amalgam process wastewater is flowing through the amalgam retaining portion of the separator;
- replacement of the amalgam retaining unit of the device in accordance with the manufacturer's schedule or when the amalgam retaining unit has reached the maximum level, whichever comes first; repair/replacement as needed; and
- recycling/disposal of amalgam waste.

Reporting requirements include a One-time Compliance Report.

The rule allows dental offices to continue to operate amalgam separators installed prior to publication of this rule for the equipment lifetime or ten years (whichever comes first), as long as the dental discharger complies with the other rule requirements including the specified BMPs, operation and maintenance, reporting, and recordkeeping requirements.

Once the separator needs to be replaced or the ten-year period has ended, whichever comes first, dental offices will need to replace the amalgam separator with one that meets the requirements of the final rule.

Dental offices that do not place amalgam, and do not remove dental amalgam except in limited emergency or unplanned, unanticipated circumstances are exempt from any further requirements as long as they certify such in their One-time Compliance Report.

In addition, the rule minimizes the administrative burden on dental offices subject to the rule, as well as the department and local regulatory authorities (Control Authorities) responsible for oversight and enforcement of the new standard.

When categorical pretreatment requirements are established, the proposed rule triggers additional oversight and reporting requirements. The Control Authorities are responsible for administering and enforcing pretreatment standards, including receiving and reviewing compliance reports. Application of typical categorical discharger oversight and reporting requirements to all of the dental offices in the state would require a large amount of additional staff time.

Further, dental office discharges differ from other industries for which categorical pretreatment standards have been established. Both the volume of wastewater discharged and the quantity of pollutants in the discharge on a per facility basis are significantly less than other industries for which categorical pretreatment standards have been established.

Accordingly, this rule exempts dental offices from the oversight and reporting requirements of categorical pretreatment standards, reflecting the department's recognition that the otherwise-applicable regulatory framework for categorical dischargers would be unlikely to have a significant positive impact on overall compliance with the rule across the dental industry, while imposing a substantial burden on state and local regulating authorities.

In order to simplify implementation and compliance for the dental offices and the regulating authorities, the rule establishes that dental dischargers are not Significant Industrial Users (SIUs) or Categorical Industrial Users (CIUs) as defined in ch. NR 211, Wis. Adm. Code, and are not "industrial users subject to categorical pretreatment standards" as those terms and variations are used in the administrative code, unless designated as such by the Control Authority.

While this rule establishes pretreatment standards that require dental offices to reduce dental amalgam discharges, the rule does not require Control Authorities to implement the traditional suite of oversight requirements in ch. NR 211, Wis. Adm. Code. This significantly reduces the reporting requirements for dental dischargers that would otherwise apply by instead requiring them to demonstrate compliance with the performance standard and BMPs through a One-Time Compliance Report to their Control Authority. This regulatory approach also eliminates the additional oversight requirements for Control Authorities that are typically associated with SIUs, such as permitting and annual inspections of individual dental offices.

It also eliminates additional reporting requirements for the Control Authorities typically associated with CIUs, such as identification of CIUs in their annual pretreatment reports. At the same time, the rule recognizes the Control Authority's discretionary authority to treat a dental discharger as an SIU and/or CIU if, in the Control Authority's judgement, it is necessary.

### **Agency Procedures for Promulgation**

The department will hold an online hearing on September 7, 2021 at 10:00 a.m. The hearing will be followed by a request for board adoption expected in December 2021 followed by a request for the governor's approval and legislative review.

### **Description of any Forms** (attach copies if available)

Existing dental offices in Wisconsin subject to the rule must have complied with these requirements by July 14, 2020 and have submitted 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.



OneTimeCompliance  
Report(Final 9-18-20).

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