

## Chapter NR 229

### DENTAL OFFICES

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**NR 229.01 Applicability.** (1) Except as provided under subs. (3), (4), and (5), this chapter applies to dental dischargers.

(2) Unless otherwise designated by the control authority, a dental discharger subject to this chapter is not a significant industrial user as defined under ch. NR 211, and is not a categorical industrial user or industrial user subject to categorical pretreatment standards as those terms and variations are used under ch. NR 211, as a result of applicability of this rule.

(3) This chapter does not apply to a dental discharger that exclusively practices one or more of the following dental specialties:

- (a) Oral pathology.
- (b) Oral and maxillofacial radiology.
- (c) Oral and maxillofacial surgery.
- (d) Orthodontics.
- (e) Periodontics.
- (f) Prosthodontics.

(4) This chapter does not apply to wastewater discharges from a mobile unit operated by a dental discharger.

(5) This chapter does not apply to a dental discharger that does not discharge any amalgam process wastewater to a POTW, such as a dental discharger that collects all amalgam process wastewater for transfer to a centralized waste treater as defined under s. NR 211.03 (2e).

(6) A dental discharger that does not place dental amalgam and does not remove dental amalgam except in limited emergency or unplanned, unanticipated circumstances, and that certifies such to the control authority in a one-time compliance report as required under s. NR 229.05 is exempt from any further requirements of this chapter.

**History:** CR 21-063; cr. Register April 2022 No. 796, eff. 5-1-22.

**NR 229.02 Definitions.** In this chapter:

(1) “Amalgam” or “dental amalgam” means an alloy of elemental mercury and other metal that is used in the practice of dentistry.

(2) “Amalgam process wastewater” means any wastewater generated and discharged by a dental discharger through the practice of dentistry that may contain dental amalgam.

(3) “Amalgam separator” means a collection device designed to capture and remove dental amalgam from the amalgam process wastewater of a dental facility.

(4) “Authorized representative” means the person authorized to sign documents as prescribed under s. NR 211.15 (10).

(5) “Control authority” has the meaning provided under s. NR 211.03 (4).

(6) “Dental discharger” means a facility where the practice of dentistry is performed and that discharges wastewater to a POTW, including institutions, permanent or temporary offices, clinics, home offices, and facilities owned and operated by federal, state, or local governments, and the sole proprietorship, partnership, or corporation that oversees the operation of such a facility.

(7) “Existing source” means a dental discharger that is not a new source.

(8) “Mobile unit” means a specialized mobile self-contained van, trailer, or equipment used in providing dentistry services at multiple locations.

(9) “New source” means a dental discharger whose first discharge to a POTW occurs after July 14, 2017.

(10) “POTW” has the meaning provided under s. NR 211.03 (11).

**Note:** POTW is the abbreviation for publicly owned treatment works.  
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**NR 229.03 Pretreatment standards for existing sources.** No later than July 14, 2020, any existing source subject to this chapter shall achieve all of the following:

(1) Removal of dental amalgam solids from all amalgam process wastewater by one of the following methods:

(a) Installation, operation, and maintenance of one or more amalgam separators that meet all of the following requirements:

1. The amalgam separator is compliant with ANSI/ADA 108-2009 with the 2011 technical addendum, incorporated by reference. Compliance shall be assessed by an accredited testing laboratory under ANSI’s accreditation program for product certification or a testing laboratory that is a signatory to the International Laboratory Accreditation Cooperation’s Mutual Recognition Arrangement. The testing laboratory’s scope of accreditation shall include ANSI/ADA 108-2009 or ISO 11143.

**Note:** ANSI/ADA 108-2009 is the American National Standards Institute/American Dental Association Specification for Amalgam Separators, published in 2009. Copies of ANSI/ADA 108-2009 and the 2011 technical addendum are available at <http://www.ada.org>. Copies are also available for inspection at the offices of the department of natural resources and the legislative reference bureau. Note that ANSI/ADA 108-2009, along with the 2011 addendum, is identical to ISO 11143:2008, which is available at <http://webstore.ansi.org>.

2. The amalgam separator is sized to accommodate the maximum discharge rate of amalgam process wastewater.

3. A dental discharger that operates an amalgam separator that was installed at a dental facility prior to June 14, 2017, satisfies the requirements of subs. 1. and 2. until the existing separator is replaced as described under subd. 5., or until June 14, 2027, whichever is sooner.

4. The amalgam separator is inspected in accordance with the manufacturer’s operating manual to ensure proper operation and maintenance of the separator and to confirm that all amalgam process wastewater is flowing through the amalgam retaining portion of the amalgam separator.

5. In the event that an amalgam separator is not functioning properly, the amalgam separator is repaired consistent with manufacturer instructions or replaced with a unit that meets the requirements under subs. 1. and 2. as soon as possible, but no later than 10 business days after the malfunction is discovered by the dental discharger, or an agent or representative of the dental discharger.

6. The amalgam retaining unit is replaced in accordance with the manufacturer’s schedule as specified in the manufacturer’s operating manual or when the amalgam retaining unit has

reached the maximum level, as specified by the manufacturer in the operating manual, at which time the amalgam separator can perform to the specified efficiency, whichever comes first.

(b) Installation, operation, and maintenance of one or more amalgam removal devices other than an amalgam separator. The amalgam removal device shall meet all of the following requirements:

1. The removal efficiency shall be at least 95 percent of the mass of solids from all amalgam process wastewater. The removal efficiency shall be calculated in grams recorded to 3 decimal places, on a dry weight basis. The removal efficiency shall be demonstrated at the maximum water flow rate through the device as established by the device manufacturer's instructions for use.

2. The removal efficiency shall be determined using the average performance of 3 samples. The removal efficiency shall be demonstrated using a test sample of dental amalgam that meets all of the following particle size distribution specifications:

- a. 60 percent by mass of particles that pass through a 3,150 µm sieve but that do not pass through a 500 µm sieve.
- b. 10 percent by mass of particles that pass through a 500 µm sieve but that do not pass through a 100 µm sieve.
- c. 30 percent by mass of particles that pass through a 100 µm sieve.

2m. Each of the 3 particle size distributions specified under subd. 2. shall contain a representative distribution of particle sizes.

3. The device shall be sized to accommodate the maximum discharge rate of amalgam process wastewater.

4. The device shall be accompanied by the manufacturer's manual providing instructions for use including the frequency for inspection and collecting container replacement such that the unit is replaced once it has reached the maximum filling level at which the device can perform to the specified efficiency.

5. The device shall be inspected in accordance with the manufacturer's operation manual to ensure proper operation and maintenance, including confirmation that amalgam process wastewater is flowing through the amalgam separating portion of the device.

6. In the event that a device is not functioning properly, it shall be repaired consistent with manufacturer instructions or replaced with a unit that meets the requirements under subds. 1. to 3. as soon as possible, but no later than 10 business days after the malfunction is discovered by the dental discharger, or an agent or representative of the dental discharger.

7. The amalgam retaining unit of the device shall be replaced as specified in the manufacturer's operating manual, or when the collecting container has reached the maximum filling level, as specified by the manufacturer in the operating manual, at which time the amalgam separator can perform to the specified efficiency, whichever comes first.

8. The demonstration of the device under subds. 1. to 3. shall be documented in the one-time compliance report required under s. NR 229.05.

(2) Implementation of all of the following best management practices:

(a) Waste amalgam including dental amalgam from chair-side traps, screens, vacuum pump filters, dental tools, cuspidors, or collection devices, may not be discharged to a POTW.

(b) Dental unit water lines, chair-side traps, and vacuum lines that discharge amalgam process wastewater to a POTW may not be cleaned with oxidizing or acidic cleaners, including bleach,

chlorine, iodine, or peroxide that have a pH lower than 6 or greater than 8.

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**NR 229.04 Pretreatment standards for new sources.** As of July 14, 2017, a new source subject to this chapter shall comply with the requirements under s. NR 229.03 and the reporting and recordkeeping requirements under s. NR 229.05.

**History:** CR 21-063: cr. Register April 2022 No. 796, eff. 5-1-22.

**NR 229.05 Reporting and recordkeeping requirements.** (1) REPORTING REQUIREMENTS. A dental discharger subject to this chapter shall comply with all of the following reporting requirements in lieu of the otherwise applicable requirements under s. NR 211.15 (1), (3), (4), and (7):

(a) *One-time compliance report deadlines.* For an existing source, a one-time compliance report shall be submitted to the control authority no later than October 12, 2020, or 90 days after a transfer of ownership. For a new source, a one-time compliance report shall be submitted to the control authority no later than 90 days following the introduction of wastewater into a POTW.

(b) *Signature and certification.* The one-time compliance report shall be signed and certified by a responsible corporate officer, a general partner, or proprietor of the dental discharger if the dental discharger is structured as a partnership or sole proprietorship, or an authorized representative in accordance with the requirements under s. NR 211.15 (10) if structured as a corporation.

(c) *Contents.* 1. The one-time compliance report for a dental discharger that does not place or remove dental amalgam as described under s. NR 229.01 (6) shall include all of the following:

- a. The facility name, physical address, mailing address, and contact information for the dental discharger.
- b. The name of the operator and owner of the dental discharger.
- c. A certification statement that the dental discharger does not place dental amalgam and does not remove amalgam except in limited circumstances.

2. The one-time compliance report for a dental discharger that is not exempted from the requirements of this chapter under s. NR 229.01 (6) shall include all of the following:

- a. The facility name, physical address, mailing address, and contact information for the dental discharger.
- b. The name of the operator and owner of the dental discharger.
- c. A description of the operation at the dental facility, including the total number of chairs, the total number of chairs at which dental amalgam may be present in the resulting wastewater, and a description of any existing amalgam separator or equivalent device currently operated to include, at a minimum, the make, model, and year of installation.
- d. Certification that the amalgam separator or equivalent device is designed and will be operated and maintained to meet the requirements specified under s. NR 229.03.
- e. Certification that the dental discharger is implementing best management practices specified under s. NR 229.03 (2) and will continue to do so.
- f. The name of the third-party service provider that maintains the amalgam separator or equivalent device operated at the dental office, if applicable. Otherwise, a brief description of the practices employed by the dental discharger to ensure proper operation and maintenance as specified under s. NR 229.03.

(d) *Transfer of ownership notification.* If a dental discharger

transfers ownership of the facility, the new owner shall submit a new one-time compliance report to the control authority no later than 90 days after the transfer.

(e) *Retention period.* As long as a dental discharger subject to this chapter is in operation, or until ownership is transferred, the dental discharger or an agent or representative of the dental discharger shall retain the one-time compliance report required under sub. (1) and make it available for inspection in either physical or electronic form.

**(2) RECORDKEEPING REQUIREMENTS.** A dental discharger or an agent or representative of the dental discharger shall maintain and make available for inspection in either physical or electronic form, for a minimum of 3 years, all of the following:

(a) Documentation of the date, person conducting the inspection, and results of each inspection of the amalgam separator or equivalent device, and a summary of follow-up actions, if needed.

(b) Documentation of amalgam retaining container or equivalent container replacement, including the date, as applicable.

(c) Documentation of all dates that collected dental amalgam is picked up or shipped for proper disposal in accordance with s. NR 662.014 (1) (e) and (f), and the name of the permitted or licensed treatment, storage, or disposal facility receiving the amalgam retaining containers.

(d) Documentation of any repair or replacement of an amalgam separator or equivalent device, including the date, person making the repair or replacement, and a description of the repair or replacement, including make and model.

(e) The manufacturer's operating manual for the current device.

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