

# FAQS FOR VIRGINIA DENTAL OFFICES TO BE COMPLIANT WITH THE DENTAL RULE

## 1. WHERE CAN I FIND THE FEDERAL GUIDELINES FOR DENTAL EFFLUENT (DENTAL RULE) TO REVIEW?

The explanation for why the rule was developed can be found here: [Federal Register - Effluent Limitations Guidelines and Standards for the Dental Category](#). The rule is designed to prevent amalgam, which contains mercury, from entering the water that goes to a wastewater treatment plant.

## 2. DO THE REQUIREMENTS OF THE DENTAL RULE APPLY TO ME?

The requirement to have an amalgam separator by the dental rule does not apply to dental offices where the practice of dentistry consists exclusively of one or more of the following dental specialties:

- oral pathology
- oral and maxillofacial radiology
- oral and maxillofacial surgery
- orthodontics
- periodontics
- prosthodontics
- \*dental offices that discharge to a septic system
- \*discharges to publicly owned treatment works from mobile units

\* Note that while the dental rule does not apply to dentists who discharge to a septic system and dentists that operate out of mobile dental clinics from being required to have amalgam separators, the waste from these two practices must ultimately be discharged to a wastewater treatment plant for treatment. The wastewater treatment plant may have its own restrictions on waste that it will accept, and it might not take dental wastewater that could contain amalgam. It is recommended that the wastewater treatment plant be contacted to see if there are restrictions. If so, installing an amalgam separator would resolve the issue.

The rule applies to:

- offices where the practice of dentistry is performed, including large institutions such as dental schools and clinics, and permanent or temporary offices
- home offices
- facilities, including dental offices owned and operated by federal, state or local governments including military bases that discharge to a POTW.



### 3. DO I HAVE TO DO ANYTHING IF THE RULE DOES NOT APPLY TO ME?

No. The dental rule does not require installation of an amalgam separator or the associated best management practices (BMPs) if the practice is exempt. Dentists who do not place or remove amalgam except in limited emergency or unplanned events and who certify as such (estimated less than 5%) do need to fill in the first 2 pages of the form including the Certification statement in item 2.b. and submit it, but do not need to install a separator.

### 4. WHAT DO I HAVE TO DO TO BE IN COMPLIANCE?

- Install an amalgam separator(s) compliant with the ISO 11143 2008 standard, which was published December 1, 1999, or document the specifications of the existing amalgam separator on the [Virginia Dental Rule Compliance Form](#).
- Maintain the separator or other amalgam removal device, and document amalgam disposal.
- Adopt these best management practices (BMPs):
  - Prohibit discharge of waste (or scrap).
  - Prohibit use of line cleaners that may lead to dissolution of solid mercury from traps and lines.
- Complete the [Virginia Dental Rule Compliance Form](#).
  - Save the form to a computer, and name it with this format:  
Zip code (underscore) Owner last name: Example: 23218\_Jones or 23218-1201\_Jones.
  - Print a copy to keep in the dental office.
  - Attach the saved form to an email addressed to: [DentalRule@deq.virginia.gov](mailto:DentalRule@deq.virginia.gov).
  - A new form should be filled out and submitted as an attachment when the information on the printed form copy is no longer current. Print a copy of the updated form to keep in the dental office.

### 5. CAN I PRINT THE VIRGINIA DENTAL RULE COMPLIANCE FORM, FILL IT OUT BY HAND AND MAIL IT TO DEQ?

The form was designed to be filled in electronically, which allows the data to be extracted and compiled on a master spreadsheet. There are instructions which 'pop-up' when the cursor is on certain cells to assist you with entering your data. To ensure your information is correctly interpreted, please complete the Virginia Dental Rule Compliance Form electronically, and send the completed form to [DentalRule@deq.virginia.gov](mailto:DentalRule@deq.virginia.gov). If you cannot complete the form electronically, please call 804-698-4028 for assistance.

### 6. WHAT TYPES OF DENTAL UNIT LINE CLEANERS AM I PROHIBITED FROM USING?

Dental unit water lines, chair-side traps and vacuum lines that discharge amalgam process wastewater to a POTW must not be cleaned with oxidizing or acidic cleaners, including but not limited to bleach, chlorine, iodine



and peroxide that have a pH lower than 6 or greater than 8. The purpose of this prohibition is to avoid cleaners that could solubilize mercury.

## **7. WHERE CAN I GET ADDITIONAL INFORMATION OR ASK QUESTIONS?**

Send questions to [DentalRule@deq.virginia.gov](mailto:DentalRule@deq.virginia.gov). Include name and phone number if a call-in response is preferred.

## **8. WHERE CAN I FIND INFORMATION ON THE ISO11143 STANDARD (2008)?**

Amalgam separators remove amalgam particulates from the rinse water before it is discharged to the sewer. The devices prevent amalgam, which contains mercury, from entering the waste stream that goes to a wastewater treatment plant. Choose an amalgam separator that will handle the number of dental chairs that will perform amalgam removal and the amount of water discharged.

The separator must meet ISO 11143 standards, published December 1, 1999, to ensure removal of at least 95 percent of waste mercury at the time of installation. The current reference to the standard is ISO 11143:2008. It was last reviewed and confirmed in 2016, so this is the most current version. The manufacturer should provide a copy of the one-page test report for testing done after December 1, 1999, upon request.

Here are links to the ISO standard:

- [International Organization for Standardization \(ISO\) 11143:2008 Dentistry - Amalgam Separators](#)
- [ISO 11143:2008 Dentistry - Amalgam Separators narrative](#)

Here are links to the American Dental Association pages on amalgam:

- [American Dental Association \(ADA\) page on Amalgam and Dental Rule](#)
- [ADA page on Amalgam Separators and Waste Best Management](#)

## **9. THE RULE SAYS THAT THE COMPLIANCE FORM SHOULD BE SENT TO THE CONTROL AUTHORITY. WHO IS THAT?**

The control authority may be the POTW (publicly owned treatment works) or wastewater treatment plant that receives the discharge from the dental practice if the POTW has an approved pretreatment program.

A pretreatment program gives the POTW the administrative and legal tools it needs to regulate the dischargers from which it receives waste. The POTW will sample the influent (where waste comes into the plant) and its effluent (the waste after it has been treated just before discharge into state waters) to determine how well the plant is able to treat the waste it receives. The treatment must ensure that the POTW can meet the Virginia Pollutant Discharge Elimination System (VPDES) permit that it holds from Virginia DEQ.



Currently, there are 42 active pretreatment programs in Virginia that cover 72 POTWs. The POTW that receives waste from a particular practice may not have a pretreatment program, which means that DEQ is the control authority. A decision was made to centralize the receipt of the Virginia Dental Rule Compliance Forms and to consolidate all of the information in a database. In service areas that have an approved pretreatment program, DEQ will provide the information from dental dischargers to the pretreatment staff at that POTW.

## 10. WHEN DO I HAVE TO BE COMPLIANT?

STATUS	Must install separator by	Must submit compliance form by
Office in business before July 14, 2017, with no separator	July 14, 2020	within 90 days of installation*
Existing office with amalgam separator	Separator meets rule until June 14, 2027, unless replacement is needed	October 12, 2020
New office that begins operating/discharging on or after July 14, 2017	At opening	within 90 days of installation*
Transfer ownership of existing office with no separator	July 14, 2020	within 90 days after transfer of ownership*
Transfer ownership of existing office with existing separator	Separator meets rule until June 14, 2027, unless replacement is needed	within 90 days after transfer of ownership*
Dental office that does not place or remove Amalgam except in limited emergency or unplanned events and who can certify as such (estimated less than 5%)	No Separator needed	October 12, 2020

\*Virginia DEQ has extended the compliance dates in the table above for the Virginia Dental Rule Compliance Form submission to 180 days of installation or transfer of ownership due to a delay in posting information on the website and having the form available.

## 11. WHERE CAN I FIND THE COMPLIANCE FORM?

[Virginia Dental Rule Compliance Form](#)

## 12. IS THIS THE SAME FORM THAT IS ON THE EPA SITE?

No. The Virginia Dental Rule Compliance Form requires much of the same information as the EPA form, but DEQ's form is fillable online can be saved. It will allow the data from many forms be consolidated into a master list. The Virginia Dental Rule Compliance Form must be used for compliance with the dental rule in Virginia.



### **13. THE EPA FORM AND THE RULE REFER TO A ONE-TIME COMPLIANCE FORM. IS THIS IT?**

EPA intended its form to be a “one-time” effort for dentists to provide the necessary information that an amalgam separator has been installed, and that the form would not need to be resubmitted on a regular basis. However, separators have to be replaced due to mechanical failure, or they will “age out” by June 14, 2027.

EPA allows previously installed amalgam separators to be used for up to 10 years from installation before requiring installation of an ISO 11143:2008 compliant separator. Dental offices can change ownership, expand, downsize, and incur changes that would necessitate updating information the DEQ would have on record. Virginia dentists should ensure that the information on the form that they keep at the practice has the most current information on the practice and amalgam separator(s). The form should be updated, saved and printed to keep at the practice, and then emailed to [DentalRule@deq.virginia.gov](mailto:DentalRule@deq.virginia.gov) so DEQ can update its database.

### **14. WHY IS THE FORM FOR VIRGINIA NOT CALLED A “ONE-TIME COMPLIANCE FORM”?**

See the response to the question above. The form should be updated when the amalgam separator has been changed from what was originally reported to DEQ, if ownership of the practice changes, or if the office expands or downsizes. The information DEQ has should match the information on the form maintained at the dental practice. If the dental practice discharges to a POTW that has a pretreatment program, there may be a follow-up visit with POTW staff to verify the information on the form.

### **15. WHY IS COMPLIANCE WITH THE DENTAL RULE THROUGH VIRGINIA DEQ AND NOT THE ADA?**

DEQ is the state regulatory environmental agency, whereas the American Dental Association (ADA) is a professional dental membership association. DEQ issues VPDES permits to wastewater treatment plants to control what they are able to discharge after treatment. POTWs receive flow from domestic sources (households and other sources of sanitary waste) and non-domestic sources that are grouped as industrial users. Industrial users include restaurants, vehicle repair garages, shops, medical facilities, veterinarians, dental practices, etc. Larger industrial users may be significant industrial users based on the flow or pollutants in the discharge. The dental rule was developed by EPA to require a dental practice to remove mercury from the influent of a POTW, so that it does not continue to pass through the POTW to end up in either the effluent or sludge.

### **16. HOW LONG DO I HAVE TO KEEP THAT FORM?**

The Virginia Dental Rule Compliance Form should be maintained on site as long as the dental discharger is in operation or ownership is transferred. The information on the form should reflect current ownership of the



dental discharger, and current descriptions of the amalgam separators or other amalgam removal devices. The form should be made available in physical (hard copy) or electronic form for inspection and review by POTW staff or DEQ upon request.

## **17. HOW LONG DO I HAVE TO KEEP THE HISTORICAL MAINTENANCE RECORDS FOR THE SEPARATOR?**

The dental rule specifies a minimum of three years during which these records should be maintained:

- Documentation of the date, person(s) conducting the inspection, and results of each inspection of the amalgam separator(s) or equivalent device(s), and a summary of follow-up actions, if needed.
- Documentation of amalgam retaining container or equivalent container replacement (including the date, as applicable).
- Documentation of all dates that collected dental amalgam is picked up or shipped for proper disposal in accordance with 40 CFR 261.5(g)(3), and the name of the permitted or licensed treatment, storage or disposal facility receiving the amalgam retaining containers.
- Documentation of any repair or replacement of an amalgam separator or equivalent device, including the date, person(s) making the repair or replacement, and a description of the repair or replacement (including make and model).
- Dischargers or an agent or representative of the dental discharger must maintain and make available for inspection in either physical or electronic form the manufacturer's operating manual for the current device.

## **18. HOW DO I KNOW THAT AN AMALGAM SEPARATOR IS COMPLIANT WITH ISO 11143 (2008)?**

[ADA Help on Amalgam Recycling Compliance, Best Practices](#)

The ADA does not maintain a list of compliant units or manufacturers. However, ADA Business Resources does have an endorsed relationship with HealthFirst that gives members a 33 percent discount on an amalgam recovery system compliant with this regulation. Contact HealthFirst at 1-888-963-6787.

The manufacturer should provide a copy of the one-page test report for testing done after December 1, 1999, upon request. More information on ISO 11143:2008 can be found here:

Here are links to the ISO standard:

- [International Organization for Standardization \(ISO\) 11143:2008 Dentistry - Amalgam Separators](#)
- [ISO 11143:2008 Dentistry - Amalgam Separators narrative](#)



## 19. WHO HAS TO MAINTAIN THIS SEPARATOR?

Dental dischargers often use a third-party vendor to maintain their equipment and to handle disposal of the waste amalgam. It also is acceptable for the dental discharger's staff to maintain the equipment and update the records.

Here are some questions to ask prospective vendors:

- What is your area of service?
- Do you provide "regularly scheduled pickup services" or is this on an "as needed basis"?
- What kinds of amalgam waste do you accept? Wet, dry?
- Do you provide packaging for storage, pick-up or shipping of the amalgam waste?
- How do you want the amalgam waste packaged (if you do not provide packaging)?
- What kinds of amalgam waste can be packaged together?
- Do you accept whole filters from the chair-side trap and from the vacuum pump for recycling?
- Is disinfection required for amalgam waste?
- Do you accept extracted teeth with amalgam restorations?

## 20. WHAT DO I DO WITH THE WASTE AMALGAM CAPTURED BY AMALGAM SEPARATOR?

The waste amalgam should be sent to an amalgam recycler and the transfer documented. This brochure from the ADA has information on this topic: [ADA Brochure on Best Management Practices for Amalgam Waste](#)

## 21. WHAT IF THE AMALGAM SEPARATOR MALFUNCTIONS?

The amalgam separator or other amalgam removal device must be repaired or replaced as soon as possible, but no later than 10 business days after the malfunction is discovered, with a unit that meets these requirements:

- Compliant with either the American National Standards Institute (ANSI) American National Standard/American Dental Association (ADA) Specification 108 for Amalgam Separators (2009) with Technical Addendum (2011) or the International Organization for Standardization (ISO) 11143 Standard (2008) or subsequent versions so long as that version requires amalgam separators to achieve at least a 95 percent removal efficiency. Compliance must 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 must include ANSI/ADA 108-2009 or ISO 11143.

- The amalgam separator(s) must be sized to accommodate the maximum discharge rate of amalgam process wastewater.

Please submit an updated Virginia Dental Rule Compliance Form with the information on the new amalgam separator or removal device to DEQ so records can be updated.

## **22. ONCE I INSTALL AN AMALGAM SEPARATOR AND SUBMIT THE FORM, AM I DONE?**

This will constitute compliance with the requirement to fill in and submit the Virginia Dental Rule Compliance Form. Dental dischargers that are located within the service area of a POTW that has a pretreatment program may be inspected by POTW pretreatment staff to verify the information on the form. The POTW staff will determine if anything additional needs to be done under its pretreatment program.