North Carolina Department of Environment and Natural Resources

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By Electronic Mail (OW-Docket@EPA.gov)

Water Docket
USEPA
Mail Code 4203M
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Attention: Docket ID No. EPA-HQ-OW-2014-0693

The following comments are submitted regarding EPA's proposed Dental Amalgam Rule. This rule seeks to reduce the amount of mercury discharged to Publically Owned Treatment Works from dental offices by requiring installation of amalgam separators and implementation of best management practices (BMPs). EPA estimates the reduction in mercury to amount to approximately 4.4 tons per year at an annual cost of $49 million ($5,568/pound).

Pretreatment Standards are designed to prevent the discharge of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of POTWs, including sludge disposal methods. North Carolina has an EPA approved total maximum daily load (TMDL) for mercury. This TMDL evaluated sources of mercury from both air and point source discharge and found that 98% of the source in our waters is atmospheric. The State is in compliance with the TMDL. There have been no instances where sludge was not able to be disposed of due to mercury. This proposed rule will do nothing to advance the purposes of the Pretreatment Program.

Eliminating toxic compounds, such as mercury, from the environment is a worthy endeavor. However, this rule will not really eliminate the mercury as it will still have to be disposed of in some manner. The emphasis of this rule should be on reducing the use of mercury and the dental industry has already made great strides in reducing the amount of mercury it uses. The following table illustrates a 46.6% reduction in use of mercury in the dental industry in just 6 years.

Table 1: Total Mercury Sold in Dental Amalgam (Pounds)

Product	2001 Total Mercury	2004 Total Mercury	2007 Total Mercury
Dental Amalgam	**61,537** (30.8 tons)	**53,213** (26.6 tons)	**32,874** (16.6 tons)

[IMERC Fact Sheet Mercury Use in Dental Amalgam Last Update: June 2010; http://www.newmoa.org/prevention/mercury/imerc/factsheets/dental_amalgam.cfm]

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EPA entered into a Memorandum of Understanding (MOU) with the American Dental Association (ADA) in 2008 to establish and monitor a voluntary program aimed at reducing dental amalgam discharges. EPA has done no evaluation of the effectiveness of the MOU. Based on the data presented in the table above it would appear that such an evaluation might provide evidence that voluntary measures are effective.

The biggest source of mercury emissions is from the artisanal and small-scale gold mining, accounting for more than a third of global emissions. [1] Other large users of mercury include vinyl chloride, chlorine and caustic soda production and the manufacture of items such as fever thermometers, blood pressure devices, switches and relays.[2] Reducing mercury use in these industries would go much further in the goal of eliminating mercury from the environment than regulations for small contributors such as dental offices. The UN Treaty recommends a phase down approach for dental amalgam by using 2 of 9 measures listed. [3] The voluntary reduction of mercury use has been evident for many years and there is no reason to expect that this trend will not continue as patients demand the use of other options.

Section IX of the preamble discusses compliance with the numeric pretreatment standard for new and existing sources. The proposed rule does not require the use of an amalgam separator to meet the numeric standard and certifying that they do not install or remove amalgam would also fulfill their obligations under the proposed rule. If they subsequently elect to install or remove amalgam, they would then need to comply with the proposed numeric standard (e.g., proper operation and maintenance of an amalgam separator) and with BMPs in today's proposed rule. This "proposed numeric standard" is not given anywhere in the proposed rule. How can compliance with a numeric standard be demonstrated if no one knows what the standard is? So, essentially EPA is requiring the use of amalgam separators.

Under EPA's proposed rule municipalities who accept wastewater from dental offices would have to develop a comprehensive list of all of the dentists in their service area. Larger municipalities in North Carolina may have 200 – 300 dental offices, which represents an increase of up to 1000% in the number of facilities they would have to provide oversight for. In addition, there are at least another 360 dental offices located in areas not covered by a Pretreatment Program. EPA assumes that States will choose to carry out the oversight activities rather than requiring a POTW to develop a Pretreatment Program.

Neither States nor POTWs have the extra resources required to implement the requirements of the proposed rule. State regulations and local ordinances would have to be updated, which can be a very time consuming process and was just done in North Carolina in 2011 to take advantage of the 2005 streamlining updates. Databases would have to be developed, which can also be a time-consuming and costly process. There would have to be a person to enter all of the data into the

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[1] The Minamata Convention on Mercury: A First Step toward Protecting Future Generations; http://ehp.niehs.nih.gov/121-a304/#r21

[2] ZMWG Framework for the Mercury Treaty; http://www.unep.org/hazardoussubstances/Portals/9/Mercury/Documents/INC2/ZMWG_framework.pdf; Zero Mercury Working Group

[3] United Nations, Minamata Convention on Mercury, October 2013, www.mercuryconvention.org

database and track the myriad of reports required by the proposed rule: baseline monitoring report, 90 day compliance report and periodic monitoring reports. Particularly in the first year there would be 600 – 900 reports for one program to review, enter data and track compliance for. Undoubtedly, there will be late reports requiring follow-up phone calls or inspections and possibly enforcement action.

North Carolina will most likely have to require POTWs to develop Pretreatment Programs to provide oversight of their dental users as State resources are not available to provide the on-going oversight the propose rule requires. It is estimated that a minimum of 23 new programs will have to be developed. Each program requires a time investment of at least 46 hours per program to develop, if all goes well.

If a dental office is the source of mercury causing a POTW to violate its NPDES permit limit or a water quality standard, contributing to interference or sludge contamination there are already processes in place to deal with that facility individually rather than creating a whole new classification consisting of over 120,000 facilities. The use of mercury in the dental sector continues to decrease and will be eliminated naturally over time. Reducing mercury emissions from larger contributors would be much more meaningful and go further in improving the environment.

For these reasons North Carolina respectfully requests that EPA reconsider the proposed Dental Amalgam Rules and instead allow natural attrition and patient demand to eliminate mercury from this industry.

Thank you for considering our comments. If you have any questions, please do not hesitate to contact me at (919) 807-6383 or via email [Deborah.Gore @ncdenr.gov]

Sincerely,

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