

DENTAL AMALGAM MANAGEMENT PROCEDURES  
CITY OF SANTA MONICA PRE-TREATMENT PROGRAM

January, 2015

**Background**

The US Environmental Protection Agency (US EPA) has determined that mercury is a persistent and bioaccumulative pollutant in the environment, with well-documented neurotoxic effects in humans. The US EPA has also determined that mercury from dental amalgam can make its way into the environment when it is discharged to a P.O.T.W. (Publicly Owned Treatment Works), and that mercury residues can pass through the P.O.T.W treatment process and be released to the environment and/or accumulate in bio-solids formed as part of the treatment process.

As part of the US EPA Industrial Wastewater Pretreatment Program, dental offices require an industrial wastewater permit administered by the City of Santa Monica. Pursuant to the prohibited discharge standards set forth in Santa Monica Municipal Code (SMMC) Chapter 5.20.040, no person shall contribute or cause to be contributed, directly or indirectly, to the P.O.T.W. (i.e. Hyperion Sewage Treatment Plant), the storm drain system or waters of the State, any pollutant or wastewater which may cause interference or pass through (i.e. incomplete treatment of the subject waste at the P.O.T.W). This Chapter of the SMMC also prohibits the discharge of mercury or mercury containing wastes to the P.O.T.W., waters of the State or storm drain system. The allowable limit of mercury concentrations in discharges to the Santa Monica sanitary sewer or storm drain systems is non-detect (ND).

Therefore, the City has identified the following industrial wastewater pre-treatment best management practices related to the management of dental amalgam wastes. Implementation of the identified technology-based best management practices is currently voluntary. However, dental offices or facilities that elect not to implement all of the referenced technologies designed to reduce or eliminate the potential for the prohibited discharge of mercury from dental amalgam will be subject to twice yearly wastewater sampling to confirm compliance with SMMC 5.20. A finding of non-compliance will result in enforcement action which can include, among other things, industrial wastewater permit reclassification, administrative citations (i.e. fines), prosecution, liability for costs of correction arising from the unlawful discharge, industrial wastewater permit suspension and/or disconnection from the sanitary sewer system.

### **Best Maintenance Practices (BMPs)**

In order to reduce the potential for discharge of solid or dissolved dental amalgam to the sanitary sewer from dental offices, the City recommends the following minimum BMP's be employed by any dental office or facility where dental amalgam is used or removed in dental procedures. The BMPs are:

- Installation, use and routine maintenance of chair-side amalgam traps,
- Installation, use and routine maintenance of a vacuum line filter downstream from an amalgam separator,
- Installation, use and routine maintenance of an amalgam separator that meets the International Organization for Standardization Standard for Dental Amalgam Separators (aka ISO) and which are a minimum of 95% effective in removing solid residual amalgam from the facility waste stream. **Note:** separators meeting the ISO standard have been documented as being 95%-99% effective, provided the devices are operated and maintained according to manufacturer specifications. Please see: ([http://www.iso.org/iso/home/store/catalogue\\_tc/catalogue\\_detail.htm?csnumber=42288](http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=42288)) and,
- Use only pH neutral solutions (i.e. pH 6-8) to clean or flush vacuum lines.
- Additional guidance and BMPs are available on our website.

It is important to note that within the City of Santa Monica it is prohibited to flush scrap dental amalgam into any drain that is not connected to an amalgam separator, or otherwise disposes of materials containing solid or soluble dental amalgam waste in a manner that is not in compliance with local, State or Federal rules or regulations.

## **Record Keeping Requirements**

Dental facilities or offices that use or remove dental amalgam shall maintain the following records:

- All records pertaining to the amount of amalgam purchased annually,
- All records pertaining to the servicing and maintenance of chair-side traps, vacuum line filters and amalgam separators and,
- All records pertaining to the recycling or offsite disposal of residual dental amalgam solids or other wastes containing amalgam in any form.

All such records shall be stored and maintained by the facility for a period of three (3) years and shall be provided for review within 48 hours of request by a representative of the City. The WRPP may conduct unannounced inspections to verify information and/or compliance.

## **Exemptions**

Dental offices or facilities where the dental practice consists exclusively of the following specialties, and upon completion and submittal of the City's Dental Self-Certification form, may be exempt from the above recommended BMPs and record keeping requirements related to dental amalgam:

- Oral pathology,
- Oral and maxillofacial radiology,
- Oral and maxillofacial surgery,
- Orthodontics,
- Periodontics and,
- Prosthodontics.

Other requests for exemption shall be evaluated on an individual case basis. The WRPP may conduct unannounced inspections to verify information and/or compliance.

## **Contacts**

Please don't hesitate to contact the City's Water Resources Protection Program (WRPP) at **(310) 458-8235** should you have any questions regarding these requirements.