

# NOVATO SANITARY DISTRICT

## Ordinance No. 117

### AN ORDINANCE MINIMIZING DISCHARGE OF MERCURY FROM DENTAL AMALGAM WASTE TO THE SANITARY SEWER

#### SECTION 1 – INTRODUCTION

The Board of Directors (Board) of the Novato Sanitary District (District) of Marin County does adopt and ordain as follows:

This Ordinance shall be known as the "Dental Amalgam Mercury Reduction Ordinance of the Novato Sanitary District" and may be so cited and pleaded.

This Ordinance is adopted pursuant to provisions of Section 6400 *et. seq.* of the Health and Safety Code of the State of California.

#### SECTION 2 – PURPOSE AND POLICY

- A. The purpose of this Ordinance is to identify and mandate pretreatment requirements necessary to reduce the discharge of mercury from non-domestic amalgam wastes into the District's wastewater system.
- B. Mercury is a toxic metal that bioaccumulates in several species of fish in San Francisco Bay, making such fish unsafe for human consumption. In 2007 the San Francisco Bay Regional Water Quality Control Board adopted the San Francisco Bay Mercury Watershed Permit to control discharge of mercury into the Bay. The Permit requires all sewerage agencies (including the District) to implement mercury control strategies.
- C. Dental amalgam, sometimes referred to as "silver filling," is a silver-colored material used to fill teeth that have cavities. Dental amalgam is approximately 50% mercury, mixed with silver and other metals. If improperly managed by dental offices, dental amalgam can be released into the environment. When installing or removing amalgam fillings, dentists may discharge amalgam wastes to the sanitary sewer via drains in the dental offices. As a result, dental amalgam is the largest controllable source of mercury in the District's service area. This Ordinance is intended to significantly reduce the quantity of mercury from amalgam waste that enters the District's wastewater system.
- D. District Ordinance No. 70, as amended by District Ordinance No. 115 (collectively, the "Sewer Use Ordinance" (SUO)), authorizes the District to regulate and control the quantity and quality of discharges into the public sewer

system so that they will not adversely affect the environment. (Section 801.) The SUO prohibits the discharge of non-domestic wastewater into the District's wastewater system without a sewer use permit. (Section 802.) The SUO also prohibits the discharge of toxic and poisonous pollutants that are hazardous to the environment and human health. (Section 808(e).) Because mercury is a toxic pollutant, the SUO prohibits the discharge of mercury in excess of 0.1 mg/L into the District's wastewater system. (Section 809(f).) Nonetheless, the discharge of mercury from amalgam waste remains a problem. Non-domestic sewer users that use amalgam to install, remove, repair, or replace dental fillings are therefore subject to this Ordinance, which sets forth applicable waste management and pretreatment requirements in accordance with SUO Article VIII, and shall be regulated as either Class II or Class III dischargers under the provisions of the SUO.

### **SECTION 3 - DEFINITIONS**

Amalgam separator: A device that employs filtration, settlement, centrifugation, or ion exchange to remove amalgam and its metal constituents from a dental office vacuum system before it discharges to the sanitary sewer.

Amalgam waste: Includes non-contact amalgam (amalgam scrap that has not been in contact with the patient); contact amalgam (including, but not limited to, extracted teeth containing amalgam); amalgam sludge captured by chairside traps, vacuum pump filters, screens, and other amalgam trapping devices; used amalgam capsules; and leaking or unusable amalgam capsules.

ISO 11143: The International Organization for Standardization's standard for amalgam separators.

### **SECTION 4 – WASTE MANAGEMENT PRACTICES**

All owners and operators of dental facilities that use amalgam fillings, and that discharge or contribute non-domestic wastewater into the District's sewer system, shall comply with the following waste management practices, which are required by this Ordinance:

- (a) The use of bulk mercury is prohibited. Only precapsulated dental amalgam is permitted.
- (b) It shall be unlawful to rinse chairside traps, vacuum screens, or amalgam separator equipment in a sink or other connection to the sanitary sewer.

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(c) Amalgam waste shall be stored and managed in accordance with the instructions of the recycler or hauler of such materials.

(d) Owners and operators of dental facilities shall ensure that all staff members who handle amalgam waste are trained in the proper handling, management and disposal of mercury-containing material and shall document how training is being provided to staff. Training records shall be available for inspection by an authorized representative of the District during normal business hours.

(e) Bleach and other chlorine-containing disinfectants shall not be used to disinfect the vacuum line of the extraction system.

**SECTION 5 – AMALGAM SEPARATORS**

Except as provided in Section 6 of this Ordinance, all owners and operators of dental vacuum suction systems shall comply with the following pretreatment requirements:

(a) An amalgam separator device certified in accordance with ISO 11143, or the most recent standard promulgated by ISO for amalgam separators, shall be installed for each dental vacuum suction system on or before December 31, 2013; provided, however, that all dental facilities that are newly constructed on or after the Effective Date of this Ordinance shall include an installed ISO 11143 certified amalgam separator device. The installed device must be ISO 11143 certified as capable of removing a minimum of 95 percent of amalgam. The amalgam separator system shall be certified at flow rates comparable to the flow rate of the actual vacuum suction system operation.

(i) Neither the separator device nor the related plumbing shall include an automatic flow bypass.

(ii) For facilities that require an amalgam separator that exceeds the practical capacity of ISO 11143 test methodology, a non-certified separator will be accepted, provided that smaller units from the same manufacturer and of the same technology are ISO-certified.

(b) All amalgam separators installed pursuant to 5(a) above shall be on the "Bay Area Pollution Prevention Group (BAPPG) List of Accepted Amalgam Separators," May 2009 or any more recent revision. For amalgam separators installed prior to the date of this Ordinance, approval may occur by the District on a case-by-case basis and separators must meet the standards of 5(a) above.

(c) Certification of installation shall be submitted to the District within 30 days of installation of the separator. The District will provide a certification form, which must




**SECTION 9 – EFFECTIVE DATE**

This ordinance shall be effective thirty days after the date of adoption.


\* \* \* \* \*

I hereby certify that the foregoing Ordinance was duly and regularly passed and adopted by the Board of Directors of Novato Sanitary District, Marin County, California, at a meeting thereof duly held on the 8<sup>th</sup> day of October, 2012, by the following vote:

|                             |   |
|-----------------------------|---|
| AYES, and in favor thereof, | Directors: Di Giorgio, Long, Mariani, Peters, Welsh |
| NOES,                       | Directors:  |
| ABSENT,                     | Directors:  |

  
\_\_\_\_\_  
President, Board of Directors  
Novato Sanitary District

ATTEST:

  
\_\_\_\_\_  
Secretary  
Novato Sanitary District