

## ORDINANCE 4941

### **Amend Ordinance 4625, Pretreatment Requirements and Standards, to Regulate the Discharge of Mercury by Dental Practices**

WHEREAS Ordinance 4625, Pretreatment Requirements and Standards, was adopted February 23, 2011.

WHEREAS Goshen's wastewater eventually enters the Great Lakes, and the US Environmental Protection Agency and Indiana Department of Environmental Management have imposed a stringent mercury discharge limit upon all Great Lake dischargers to no more than 1.3 ng/L.

WHEREAS Goshen has been granted a temporary variance from the mercury level limit under its federal NPDES discharge permit to examine the mercury sources entering the wastewater collection system and to implement strategies in order to come into compliance with the mercury discharge limit.

WHEREAS it was discovered after sampling throughout Goshen's wastewater collection system that sewer lines from dental practices had extremely high levels of mercury ranging from 216 ng/L to 1,020,000 ng/L.

WHEREAS the EPA promulgated pre-treatment standards to reduce discharges of mercury from dental offices, but such standards do not take effect until July 14, 2020.

WHEREAS in order to reduce the amount of mercury discharged into Goshen's wastewater collection system, it is necessary for the City to implement a mercury reduction plan which will require dental practices to implement Best Management Practices (BMPs) that include inspections, compliance and enforcement procedures.

NOW, THEREFORE, BE IT ORDAINED by the Goshen Common Council that Ordinance 4625, Pretreatment Requirements and Standards, shall be amended as follows:

#### **SECTION 1 Dental Practices**

Ordinance 4625, Section 4, Pretreatment Requirements, shall be amended by adding the following new section:

##### **4.09 Dental Practices.**

- (A) For the purposes of this ordinance, any dental facility or other commercial facility performing or associated with dental work shall be referred to as a "Dental Practice."
- (B) A Dental Practice that handles mercury or products containing mercury, or otherwise removes or places amalgam fillings, shall properly install, operate, and maintain according to manufacturer's recommendations an appropriately sized amalgam separator that has an efficiency removal rate of at least ninety-nine percent (99%), certified to current, applicable standards, as well as chair-side traps to capture amalgam. Dental Practices shall provide to the Superintendent, upon request, a certification that the installation, operation, and maintenance of the amalgam separator is in accordance with the amalgam separator manufacturer's recommendations, ISO 11143, and/or Best Management Practices.

- (C) A Dental Practice that handles mercury or products containing mercury, or otherwise removes or places amalgam fillings, shall be subject to, and must comply with, monitoring, inspection, reporting, and other requirements found in Best Management Practices and City of Goshen Mercury Reduction Plan for Dental Practices as developed by the Superintendent.
- (D) A Dental Practice shall report to the Superintendent the model and size of its amalgam separator within ninety (90) days after installation of the separator.
- (E) Any new construction of a Dental Practice shall include a sampling manhole, with a sampling port to allow testing of the Dental Practice's waste discharges.
- (F) A Dental Practice shall maintain on-site records of the operation, maintenance, and recycling or disposal of amalgam waste for the previous three (3) years.
- (G) A Dental Practice that does not handle mercury or products containing mercury, or otherwise remove or place amalgam fillings, can petition the Goshen Board of Public Works and Safety for an exemption from the requirements of this section.
- (H) The following types of Dental Practice are exempt from this section 4.09, provided that removal or placement of amalgam fillings occurs at the facility no more than 3 times per year: (1) Orthodontics; (2) Periodontics; (3) Oral and maxillofacial surgery; (4) Radiology; (5) Oral pathology or oral medicine; (6) Endodontistry, and prosthodontistry.

**SECTION 2. Definitions**

The definition of Best Management Practices set forth in Section 15.04 of Ordinance 4625, Section 15, Definitions and Abbreviations, shall be amended to read as follows:

15.04 Best Management Practices (BMPs). Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in 40 C.F.R. § 403.5(a)(1) and (b), and sections 3 and 4 of this ordinance, except the BMPs required for Dental Practices shall include those practices set forth in City of Goshen Mercury Reduction Plan for Dental Practices. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage. BMPs also include alternative means (i.e., management plans) of complying with, or in place of certain established categorical pretreatment standards and effluent limits.

**SECTION 3. Effective Date**

This ordinance shall be in full force and effect from and after its passage, approval and adoption according to the laws of the State of Indiana.

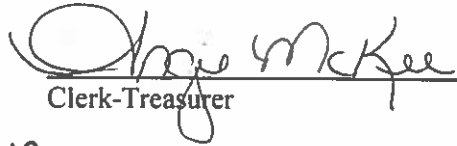
PASSED by the Goshen Common Council on March 6, 2018.

  
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 Presiding Officer


Attest:

  
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 Clerk-Treasurer

PRESENTED to the Mayor of the City of Goshen at 8:45 am/p.m. on March 12, 2018.

  
Clerk-Treasurer

APPROVED and ADOPTED on March 12, 2018.

  
Mayor

**City of Goshen Mercury Reduction Plan for Dental Practices  
(Best Management Practices)**

**Prepared by the City of Goshen for the control of mercury  
discharged by dental offices to the sanitary collection system.**

**January 11, 2018**

## **Introduction**

The City of Goshen Mercury Reduction Plan for Dental Practices, Best Management Practices (BMPs) for Dental Practices are designed to comply with environmental regulations, to prevent pollution, and to assist Dental Practices in the proper management of products containing mercury and amalgam waste in their day-to-day activities. This document contains a set of required and recommended operating procedures and guidelines designed to reduce the amount of mercury discharged to the City of Goshen sanitary sewer system, a publicly owned treatment works (POTW). Proper implementation of these procedures is intended to protect Indiana's natural environment from the discharge of hazardous mercury-containing compounds.

### **BMP #1 – Disposal**

Waste amalgam including, but not limited to, dental amalgam from chair-side traps, screens, vacuum pump filters, dental tools, cuspidors, or collection devices, must not be discharged to a POTW. Dental Practices shall designate all sinks as "Sanitary Use Only – No Chemical or Amalgam Disposal" to eliminate cleaning of amalgam-contaminated instruments in the sink. Waste amalgam shall be collected, packaged, labeled, stored, and managed in accordance with applicable law and disposed of by a licensed recycler or hauler of such materials. Dental Practices shall never discard elemental mercury or amalgam in any sink or drain, sharps container, biohazard waste bag (red bag), or trash. Each Dental Practice shall follow the requirements of a licensed amalgam handler or recycler for the storage, disinfection, labeling, packaging, and shipping of scrap amalgam.

### **BMP #2 - Amalgam Retention Equipment and Maintenance**

Dental Practices shall maintain and clean chair-side amalgam traps, vacuum pump filter, and amalgam separators as recommended by the equipment manufacturer. No person shall rinse chairside traps, vacuum screens, or amalgam separator equipment in a sink or other connection to the sanitary sewer. Dental unit water lines, chair-side traps, vacuum lines, and amalgam separators that discharge amalgam process wastewater to the 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. A malfunctioning amalgam separator must be repaired or replaced no later than ten days after the malfunction occurs. Every amalgam separator must be replaced every ten years, or at the end of the separator's life, whichever occurs first.

### **BMP #3 – Storage**

Never store amalgam waste under any liquid. Store all amalgam waste dry in a properly labeled, air-tight container. Dispose of any liquids used to disinfect contact amalgam as hazardous. These cannot be discharged to the sewer system.

### **BMP #4 - Environmental Release**

**Plumbing Replacement and Repairs:** After a Dental Practice adopts its new amalgam management practices, the Dental Practice shall clean or replace sink traps and its service lateral. Mercury from past activity often settles at low points such as sink traps and sumps. The slow dissolution of the mercury in a sink trap or sump can release mercury into the City of Goshen sanitary sewer for years after past disposal practices have been corrected. When plumbing parts are removed or cleaned, caution should be taken to avoid spilling the contents in case amalgam or mercury is present. Pour and brush out the sludge and handle it as if it were contact amalgam, or have it discarded as hazardous waste.

**Spills:** Do not handle mercury or mix amalgam in carpeted areas because it is very difficult to collect all of the contaminants if there is a spill. In the event of a mercury spill, put on nitrile gloves (do not use latex gloves as mercury can penetrate latex) along with other appropriate proper protective equipment and clean it up immediately using a mercury spill kit. Never clean up a mercury spill using a vacuum cleaner as this has the potential to spread mercury dust and/or vapor throughout the area in the vacuum exhaust. Train staff members in proper spill cleaning procedures.

### **BMP #5 - Records Requirements**

Dental Practices shall maintain a written or electronic log of all of the following:

- Records that document the specifications, installation, operation, cleaning, and maintenance records for the amalgam separator, vacuum system, and chair-side traps in accordance with the manufacturer's recommendations, ISO 11143, and/or best management practices.
- Documentation of the initial cleaning event, including identification of who performed the cleaning, how waste was disposed, and similar information.
- Records that document the disposal or recycling of the waste amalgam, including date sent off site, the name and address of the company receiving the waste.
- Purchasing records of the non-oxidizing cleaner.
- Employee sign-in sheet and training certification letter for BMP training for all employees.

These documents must be kept on file for at least three years, and must be made available to authorized City of Goshen inspectors upon request.

### **BMP #6 – Training**

Dental Practices shall train all staff who may handle or come into contact with mercury or mercury-containing materials on the following topics:

- Why mercury is a pollutant of concern.
- The effects of mercury in the city collection system.
- The effects of mercury in the environment.
- The materials in the dental facility that contain mercury.
- How the amalgam separator works.
- How to operate, maintain, and clean the amalgam separator system.
- The proper storage, handling, management, and disposal of mercury and mercury-containing material and fixer-containing solutions.
- How to properly recycle mercury.

Proper knowledge and handling of mercury and amalgam is vital to preventing accidental exposure and release of hazardous materials into the environment. A proper training program must include all of the City of Goshen Best Management Practices. Anyone who handles or has the potential to come into contact with mercury-containing materials must be trained in these BMPs for proper mercury/amalgam waste handling requirements.