EMERGENCY REGULATION

This rule establishes requirements for controlling the discharge and recycling of amalgam wastewater from dental practices. The purpose of this rule is to reduce mercury in wastewater by preventing its release from the source through proper handling and use of filters and separators in dental practices.

This regulation is established to

Protect the City's wastewater treatment system & Boulder Creek from the introduction of excessive amounts of mercury; to protect human health, aquatic and wildlife; to comply with the State's limit for clean waterways; & to meet city permit requirements for the quantity of mercury discharged to Boulder Creek

As the City Manager's delegate, I determine that this rule shall become effective immediately to protect the public health, safety, and welfare because

_____

Authority: Section Specific Code Provisions 11-1-3 and 11-3-24 , B.R.C. 1981

Rules approved as to form and legality for immediate adoption by the City Attorney's office on 3/12 (Date), 2007 by _____, City Attorney.

Three copies of Emergency rules filed with the city clerk and will become effective immediately on 3/19 (Date), 2007.

Rules approved by the City Manager or his/her delegate on _____ (Date), 2007 by _____ (Manger/Delegate), Director of _____ Department, as the City Manager's delegate.

Date of publication of notice of thirty day (30) comment period in the Daily Camera 3/23/07.

Approved by the City Manager with ~~out~~ non substantive changes change after considering public comment on 4-21 (Date), 2007. 3) part 4 b3

City Manager/~~Delegate~~

Approved rules re-filed with the City Clerk and continued in effect on 4/21 (Date), 2007.

See original Page for Signatures on →

11-1-3.B(07)

NOTICE TO THE PUBLIC

The City Manager of the City of Boulder proposes to adopt an emergency regulation to

This rule establishes requirements for controlling the discharge and recycling of amalgam wastewater from dental practices. The purpose of this rule is to reduce mercury in wastewater by preventing its release from the source through proper handling and use of filters and separators in dental practices.

Copies are available for public review at Central Records at the Municipal Building, 1777 Broadway 2nd floor.

This rule establishes requirements for controlling the discharge and recycling of amalgam wastewater from dental practices. The purpose of this rule is to reduce mercury in wastewater by preventing its release from the source through proper handling and use of filters and separators in dental practices.

Written comment should be directed to Ridge Dorsey, Pretreament Specialist, PWIndustrial Pretreat Pro, 303-413-7361
City of Boulder, P.O. Box 791, Boulder, CO 80306,

The City Manager will consider comments for 30 days on whether to make this rule permanent.

REGULATION RULE

This rule establishes requirements for controlling the discharge and recycling of amalgam wastewater from dental practices. The purpose of the amalgam wastewater rules is to reduce mercury in wastewater by preventing its release from the source through proper handling and the use of filters and separators in dental practices.

This regulation is established to protect the City's wastewater treatment system and Boulder Creek from the introduction of excessive amounts of mercury; to protect human health, aquatic life and wildlife; to comply with the State's limit for clean waterways; and to meet the city permit requirements for the quantity of mercury discharged to Boulder Creek.

Authority: Section 11-1-3 and 11-3-24, B.R.C. 1981

Rules approved as to form and legality by the City Attorney's office on 3/12/07 (Date) by [illegible], City Attorney.

Proposed rules approved prior to publication by the City Manager or his/her delegate on 3-15-07 (Date) by Robert Williams (Manager/Delegate), Director of Public Works for Utilities Department, as the City Manager's delegate.

Three copies of rules filed with the City Clerk (office of Central Records) on 3-19 (Date), 2007.

Date of publication of notice of fifteen (15) day comment period in the Daily Camera 3-21, 2007.

Approved by the City Manager/Delegate without change after considering public comment on 4-5 (Date), 2007.

_____

City Manager/Delegate

Adopted rules re-filed with the City Clerk and effective on _____ (Date), 2007.

NOTICE TO THE PUBLIC

The City Manager of the City of Boulder proposes to adopt a regulation to

protect the City's wastewater treatment system and Boulder Creek from the introduction of excessive amounts of mercury; to protect human health, aquatic life and wildlife; to comply with the State's limit for clean waterways; and to meet the city permit requirements for the quantity of mercury discharged to Boulder Creek.

This rule establishes requirements for controlling the discharge and recycling of amalgam wastewater from dental practices. The purpose of the amalgam wastewater rules is to reduce mercury in wastewater by preventing its release from the source through proper handling and the use of filters and separators in dental practices.

Copies are available for public review at Central Records at the Municipal Building, 1777 Broadway 2nd floor.

Written comment should be directed to Ridge Dorsey, Pretreatment Specialist, PW/Industrial Pretreat Prog, 303-413-7361, City of Boulder, P.O. Box 791, Boulder, CO 80306

Adoption will be considered after the 15-day comment period.

RULES CONCERNING TREATMENT AND DISPOSAL OF AMALGAM WASTEWATER WITHIN THE CITY OF BOULDER

1. Purpose and Applicability

It is the intent of these rules to protect the City's wastewater treatment system and Boulder Creek from the introduction of excessive amounts of mercury; to protect human health, aquatic life and wildlife; to comply with the State's limit for clean waterways; and to meet the city permit requirements for the quantity of mercury discharged to Boulder Creek.

Since 2003, when the city of Boulder was issued a CDPS permit with an effluent mercury standard of 12.0ng/L, the wastewater treatment plant has had concerns for compliance with this limit. Concurrently with the permit changes, the EPA Region VIII began to develop focused policy guidance for mercury control to wastewater treatment plants. It is anticipated that EPA will require further pretreatment program controls for mercury.

Once in the environment, mercury can be converted to its most toxic form, methylmercury. Methylmercury is persistent and bio-accumulates within the environment. It is a neurotoxin, and exposure can cause damage to the development and functioning of the nervous system as well as various environmental concerns.

Among sources of mercury in the wastewater, dental amalgam is an avoidable pollutant. Dental practices, through the proper technology, have the means to dramatically minimize the amount of mercury discharged. Through the installation of an International Organization for Standardization (ISO) approved separator and use of best management practices, dental practices can capture up to 99.9 percent of their amalgam waste. To effectively address this issue, the city has developed these Rules Concerning Treatment and Disposal of Amalgam Wastewater in support of Title 11, Chapter 3, B.R.C. 1981.

(a) Purpose. This rule establishes requirements for controlling the discharge and recycling of amalgam wastewater from dental practices. The purpose of the amalgam wastewater rules is to reduce mercury in wastewater by preventing its release from the source through proper handling and the use of filters and separators in dental practices. The objectives of this rule are:

(1) to reduce the amount of mercury discharged into Boulder's wastewater collection system.

(2) to meet city permit requirements and remain in compliance with the state's limit for clean waterways.

(3) to protect human health and aquatic life through protecting the city's water supplies.

(4) to establish administrative review procedures and reporting requirements.

(5) to establish enforcement procedures for violations of any part or requirement of this rule.

(b) Applicability. The provisions of this rule are applicable to all dental practices located within the municipal boundaries of the city of Boulder or within the wastewater treatment plant service area that discharge wastewater from the placement or removal of amalgam containing mercury.

2. Authority

These rules are issued pursuant to Sections 11-1-3 and 11-3-24, B.R.C. 1981.

3. Definitions and Abbreviations

The definitions included here are specific to this rule. Definitions of other terms used in this rule are the same as those contained in Section 11-3-3, B.R.C. 1981.

"Amalgam," for the purpose of this rule, means any mixture or blending of mercury with another metal or with an alloy used in dental applications.

"Amalgam separators" means a type of wastewater treatment equipment that is designed to remove amalgam particles and dissolved mercury from the wastewater discharged by dental practices.

"Amalgam waste" includes any waste containing mercury or residues from the preparation of the amalgam. This includes any waste generated or collected by chair-side traps, screens, filters, vacuum system filters, amalgam separators, elemental mercury, and amalgam capsules.

- "Non-contact amalgam" includes scrap or excess amalgam after procedure is complete, as well as the remaining amalgam capsule.
- "Contact amalgam" means scrap that has come into contact with patient or body fluids. Examples include: extracted teeth and scrap collected in chair-side traps and vacuum pump filters.

"Best Management Practices" (BMPs) means a set of operational standards designed to minimize the environmental impact and human exposure to mercury.

"Dental Practice" as used in this rule, means any dental facility that discharges wastewater from the placement or removal of amalgam containing mercury.

"Exempt Dental Practice" means any dental facility in which no dentist places or removes amalgams containing mercury and / or teeth containing mercury amalgams.

Abbreviations: For the purposes of this rule, the following abbreviations shall have the meanings designated in this rule.

BMPs: Best Management Practices
CDPS: Colorado Discharge Permit System
ISO: International Organization for Standardization
Ng/L: Nanograms (Ng) per Liter (L)

4. Amalgam Separators and Best Management Practices

(a) Requirements. All dental practices that discharge wastewater generated from the placement or removal of amalgam are required to install an amalgam separator in accordance with the following guidelines and to implement the following BMPs.

(1) Dental Practice. Within one year of the effective date of this rule, all dental practices shall have installed and are required to maintain and utilize an approved amalgam separator according to the requirements contained in this rule. Within six months of the effective date of this rule, all dental practices shall be required to implement and certify the BMPs and, thereafter, recertify annually according to the requirements contained in this rule.

(2) Exempt Dental Practice. Waivers will be granted to dental practices in which no dentist places or removes amalgams containing mercury and / or teeth containing mercury amalgams. A written request for a waiver must be sent to the City of Boulder's Industrial Pretreatment Program within six months of the effective date of this rule.

(b) Amalgam separators. Amalgam separators shall be installed in all dental practices, except in the case of exempt dental practices. All amalgam separators shall meet the following criteria:

(1) Amalgam separator design. The amalgam separator shall be ISO 11143 certified and shall be designed and approved for a flow rate capable of handling the maximum volume discharged from the dental practice it serves.

i. The amalgam separator must be tested according to the most current ISO 11143 standard. Each dental practice should select a separator with the highest efficiency level attainable in their working conditions.

ii. If ISO increases the acceptable standard, the dental practice must comply with the new standard within five years.

(2) Installation. The amalgam separator shall be installed so that all amalgam-contaminated wastewater will pass through the unit before being discharged.

(3) Inspection and maintenance. Each dental practice shall be responsible for inspecting and maintaining the amalgam separator in accordance to manufacturer's instructions.

(4) Disposal. Waste removed from the amalgam separator shall be collected and handled in accordance with the manufacturer's instructions and as described below.

(c) Best Management Practices. BMPs shall be implemented, certified within six months of effective date, and recertified each calendar year by February 15th. Each dental practice shall comply with the following BMPs:

(1) Equipment. The dental practice shall ensure that all dental chairs are equipped with chair-side traps and that all vacuum pumps are equipped with traps and filters. All equipment shall be cleaned, disposed of, and maintained in accordance with the manufacturer's instructions.

(2) Clean-up procedures. Each dental practice shall use non-chlorine or non-oxidizing disinfectants and neutral cleaners. When cleaning filters or collecting scrap amalgam, the dental practice shall not rinse filters or traps over sinks or drains. All water containing amalgam waste must be washed trough amalgam separator lines.

(3) Recycling. The dental practice shall recycle all bulk mercury and all amalgam waste.

(4) Salvaging. All contact and non-contact scrap amalgam should be salvaged and stored in structurally sound, tightly closed and appropriately labeled containers.

(5) Disposal. The dental practice shall never dispose of amalgam waste in the garbage, infectious waste or biohazard containers. All amalgam waste shall be transferred to an offsite recycling facility for recycling of mercury on an annual basis.

(6) Amalgam selection. The dental practice shall use only pre-capsulated, single-use amalgam and shall stock a variety of sizes in order to minimize waste.

5. Record Keeping and Reporting

(a) Record keeping. The dental practice shall maintain records of amalgam disposal. These records shall include the date, the name and address of the facility to which any waste amalgam is shipped, and the amount shipped. The dental practice shall also maintain records of all maintenance and service completed on the amalgam separator. All records shall be kept on site for a minimum of three years and shall be made available to the City of Boulder on request.

(b) Reporting. Within one year, the dental practice shall submit a certification form of compliance, attained from the city of Boulder. The form shall include:

(1) Amalgam separator compliance. To show compliance with the amalgam separator requirement, the dental practice shall include the following information: the manufacturer and model name of the separator, the date of installation, the name of the company that installed the unit, and the name and address of the recycler used.

(2) BMPs certification compliance. To show compliance with the BMPs requirement, the dental practice shall sign a self-certification of the BMPs implemented at the dental practice. This form shall be signed by an authorized representative at a given location. The dental practice shall recertify annually by February 15th and shall submit the form with any changes made at the dental practice to:

Pretreatment Specialist
Water Quality and Environmental Services
City of Boulder
4049 N. 75th Street
Boulder, Colorado 80301

6. Administrative – Recovery and / or Remedies

(a) Dental practices that handle amalgam and do not implement BMPs and / or install an amalgam separator may be subject to enforcement. Names and offices will be published in the newspaper displayed as "NOTICE OF NONCOMPLIANCE". Offices not completing compliance forms will likely be inspected by a City employee. Additional enforcement options include notices of violation, fines, and imprisonment.

(b) Remedies Nonexclusive. The remedies provided for in this rule are not exclusive. The City may take any, all, or any combination of actions against a noncompliant dental practice. The City may take other action against any dental practice when the circumstances warrant. Further, the City is empowered to take more than one enforcement action against any noncompliant dental practice.

Laurel Hamilton - Fwd: Re: Dental Public Notice Comments

From: Sue Ellen Harrison
To: Hamilton, Laurel
Date: Thursday, April 19, 2007 1:29 PM
Subject: Fwd: Re: Dental Public Notice Comments

Laurel - pls make this change asap.
thanks'sue ellen

>>> Ridge Dorsey 4/19/2007 11:48 AM >>>
Sorry for not being clear, let's make this change as non-substantive.

Ridge

3) Part 4b 3. ADD: Each dental practice shall be responsible for inspecting and maintaining the amalgam separator "in accordance to manufacturer 's instructions"

Ridge Dorsey
Industrial Pretreatment Specialist
Water Quality & Env. Services
4049 North 75th Street
City of Boulder, Colorado 80301
w. 303-413-7361 fax 303-413-7373
** New E-mail : dorseyr@bouldercolorado.gov
>>> Sue Ellen Harrison 04/19/07 10:02 AM >>>
Ridge - I am not clear - do you want to make any of these changes? Not a problem - we can do whatever you want. However, please get back to me by sometime tomorrow.
Sue Ellen

>>> Ridge Dorsey 4/19/2007 9:45 AM >>>
I believe the 30 day comment period is up today.

3/21/07

Rule and Regulation establishing requirements for control of discharge and recycling of amalgam wastewater from dental practice.

Due to use of the Regular Rule and Regulation template instead of the Emergency template this Rule and Regulation published with a 15 day comment period which should have been a 30 day.
The re-publication will be on 3/22/07 and the document will be forwarded through the process following the now 30 day comment period.
The signatures will remain as is, as there were no changes to the document only the re-publication.
Sandy North

Contract routing number 20070316-2956