

Questions to ask recyclers:

- ▶ What type of waste does the company accept? What type of waste can be shipped/packed together? Does the company accept both non-contact and contact amalgam/scrap teeth?
- ▶ Do the services include proper storage units as well as pickup or shipping of amalgam waste from dental offices?
- ▶ Who do you sell recovered mercury to?
- ▶ Does the company use the proper forms required by the EPA and state agencies?

Steps to take:

- 1 Select a separator that is tested** according to the International Organization of Standards (ISO) for the maximum flow rate at your dental practice. Contact vendor or manufacturer.
- 2 See if the separator is certified** by an additional lab/accredited body (RWTUV, TUV NORD, and SP are the most common). Although this is not currently required, certifications by these labs assure that the separator meets the highest standard.
- 3 Arrange for delivery and installation.** Vendors will often install units. If your vendor does not include installation, contact a plumber familiar with amalgam separators. Installation may need to be scheduled when the vacuum lines and plumbing system are not in use.
- 4 Schedule regular monitoring** of unit with vendor or waste handler.
- 5 Establish proper waste management.** This will mean designating proper storage units and waste disposal of both contact and non-contact amalgam. Also determine if your waste disposal company will handle chair-side traps and vacuum filters. If your vendor does not provide waste removal, contact a waste handler.

Want To Know More About Water and Dental Practices?

For complete regulations, compliance, and waiver forms:

- City of Boulder Utilities: www.boulderwater.net
- American Dental Association: www.ada.org
- Colorado Dental Association: www.cdaonline.org
- PACE: www.pacepartners.com
- Keep It Clean Partnership at: www.KeepitCleanPartnership.org



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certification answers

Amalgam Recycling

What you need to know about reducing mercury discharged into Boulder's wastewater.



Why Now?

Mercury levels are approaching the allowable environmental limit for Boulder Creek. In response, the city of Boulder is implementing new regulations that will affect how dental amalgam is handled. These environmental standards will not only become law, but most importantly, will protect our water quality. Join us in implementing these responsible business practices.

The city of Boulder is committed to lowering the amount of mercury released by focusing on:

- ▶ Reducing the amount of mercury discharged into Boulder's wastewater.
- ▶ Complying with Colorado's limit for mercury in treated water released into Boulder Creek.
- ▶ Protecting aquatic life and the environment.

DID YOU KNOW?

Dentists can capture up to 99% of the mercury that would otherwise enter the environment.



The city of Boulder's Industrial Pretreatment program works with industries to minimize their effect on the wastewater stream.

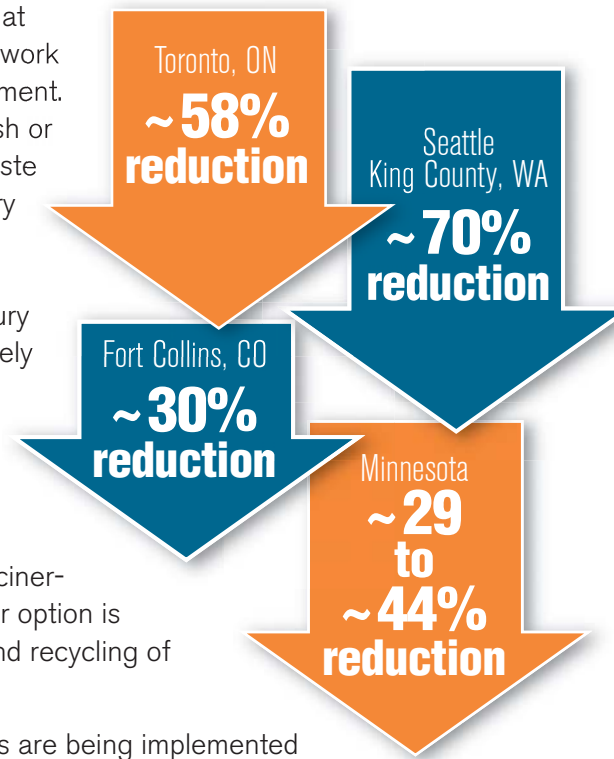
Dental amalgam has been identified as a controllable source of mercury within the wastewater stream. Dental offices have the means to dramatically minimize the amount of mercury discharged from their practices. Although dental practices represent only a portion of the environmental mercury, dental amalgam is a significant but preventable pollutant within the wastewater stream.

Dental amalgams consist of approximately 50 percent mercury by weight. Although chair-side traps and vacuum filters capture some of the amalgam waste that results from removed fillings and procedural byproducts, small mercury particles escape into the wastewater stream. At the wastewater treatment plant, mercury either settles into sludge or can be released into Boulder Creek.



Amalgam waste disposed of at the dental practice may also work its way back into the environment. Waste disposed of in the trash or as a biohazard/infectious waste will only transport the mercury to the landfill. Once in the environment, organisms may convert free elemental mercury into methylmercury, an extremely toxic compound that bio-accumulates within the environment. Proper disposal of mercury can be difficult since it cannot be washed down the drain or incinerated. Consequently the better option is containment at the source and recycling of the waste.

Around the country, programs are being implemented that nearly eliminate mercury waste from dental offices. With the use of Best Management Practices (BMPs) and the installation of an approved amalgam separator, dentists can capture up to 99 percent of the mercury that would otherwise be released into our environment.



Questions to help your office pick the right separator:

- ▶ How many chairs are in your office? What is the peak flow from practices?
- ▶ Do you own or lease your office? If leased, talk to building manager in regards to plumbing.
- ▶ Do you share a building with other dental practices?
- ▶ Do you want to install chair side units or a central unit to capture waste?
- ▶ How much physical space do you have?
- ▶ Do you have a wet or dry vacuum system? Can you alter the vacuum? Any warranty issues?
- ▶ Are maintenance and/or recycling services included?
- ▶ Is there access to a power supply, if needed?



BMPs Best Management Practices

Responsible business includes proper waste management to protect our environment. Dental offices are first required to implement BMPs and certify their office by Nov. 1, 2007. Next, dental offices must install amalgam separators by May 1, 2008. Please see regulations for complete details.



- 1 **Recycle bulk mercury.**
- 2 Ensure that all **dental chairs are equipped with chair-side traps**. Traps shall be cleaned and maintained in accordance to manufacturer's instructions and regulations.
- 3 When required, (specifically with wet vacuums) guarantee that all **vacuum pumps are equipped with a secondary filter**. Such equipment shall be maintained in accordance to regulations and manufacturer's instructions.
- 4 When collecting scrap amalgam, **never rinse filters over sinks or drains** that do not drain through the amalgam separator.
- 5 **Amalgam waste must never be placed in regular garbage**. All amalgam waste must be recycled or disposed of in accordance to regulations.
- 6 **All scrap amalgam should be salvaged and stored** in sealed containers that are clearly marked. All salvaged amalgam scrap must be recycled.
- 7 **Use only non-chlorine or non-oxidizing disinfectants** and neutral line cleaners.
- 8 **Keep records of amalgam disposal**, including the name and address of disposal company as well as any maintenance and service completed on the separator. Records must be kept on site for no less than three years.
- 9 **INSTALL an AMALGAM SEPARATOR by May 1, 2008.**

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