

BMPs facilitate regulatory compliance; they go beyond meeting established minimum requirements. They provide ways of carrying out your business activities that can significantly reduce the risk of pollution and may even save you money. They're good for the environment, your patients, and your business.

CENTRAL
CONTRA
COSTA
SANITARY
DISTRICT



Dental Offices and Mercury Pollution Prevention

◆ Reducing mercury in wastewater is key

Central Contra Costa Sanitary District (CCCSD) is concerned about mercury levels in our wastewater. As part of our operating permit, we are required to meet specific discharge limits. Most of the pollutants in our treatment plant discharges, including mercury, come from our customers. While most of the mercury we receive is removed during the treatment process, the rest has to be discharged into the Bay because no treatment method currently exists to completely remove it from wastewater. Reducing sources of mercury prior to reaching the sewer is the best way to reduce mercury contamination in both air and water.

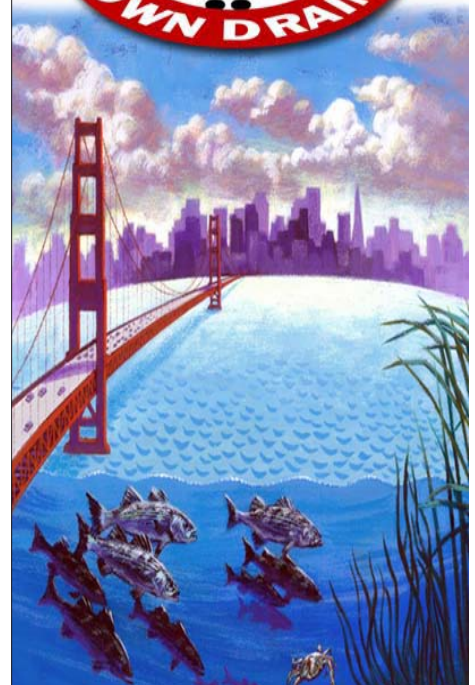
CCCSD currently meets Federal, State and Regional limits for mercury in our discharged wastewater. However, earlier this year the San Francisco Bay Regional Water Quality Control Board slashed the amount of mercury CCCSD will be allowed to discharge into the Bay by 58%. In order to stay in compliance, we will have to significantly reduce the amount of mercury coming into the treatment plant. This will especially impact our largest mercury contributors – dental offices.

◆ Wastewater from dental offices is a major source of mercury

Sources of mercury pollution in wastewater include dental offices, medical facilities, schools, residences, businesses and industry. In a recent survey of seven major wastewater treatment plants in California, Minnesota, Ohio, and Maine, dentists were identified as the greatest contributors of mercury. CCCSD estimates that approximately 50% of the mercury in our wastewater comes from dental offices. That's more than double the second largest source, residential laundry gray water.

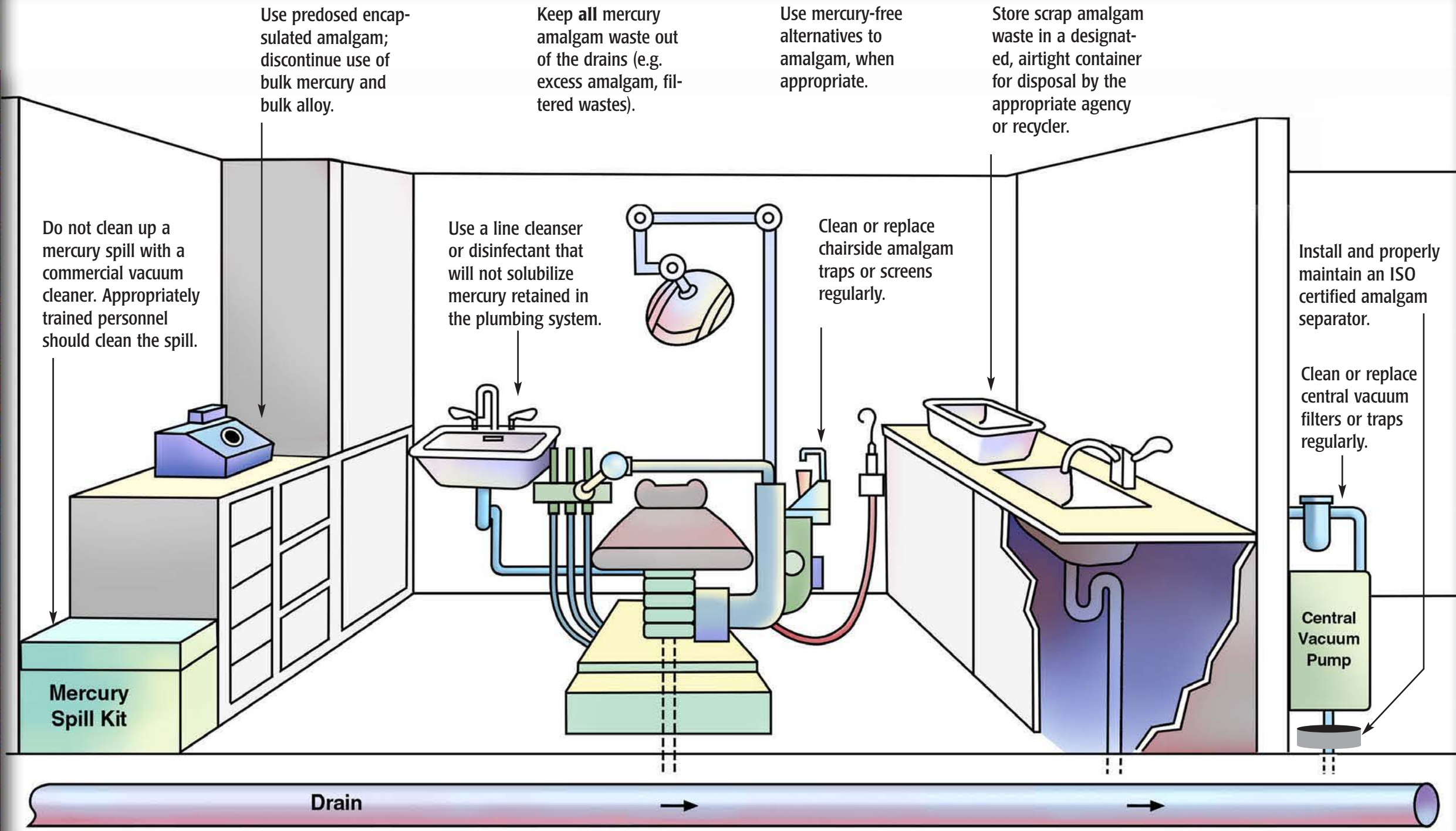
The use, removal and improper disposal of amalgam are currently the most significant mercury contributors to our wastewater treatment plant. We estimate that about 88% of the dental mercury discharged to our sewers is from filling removals. Over 32.3 pounds of mercury entered CCCSD's wastewater treatment plant this past year, and our new limit allows the plant to discharge only 4.9 pounds. On average, each dental practice contributes an estimated 0.4 to 0.5 ounces of mercury per year.

**Mercury
dumped down
drains
will
reach
the Bay...**



Best Management Practices (BMPs) In Dental Offices Can Reduce Mercury Pollution

It is more effective to contain and dispose of mercury waste at the source than to develop treatment and disposal technologies to manage it after dilution with wastewater. In order to contain mercury at the source, we are asking you to consider taking the following actions:



◆ Dental Inventory Program

Because CCCSD has identified dental offices as the major source of mercury in our wastewater, we need the help of the dental community to reduce this amount. CCCSD's Board of Directors endorsed a Dental Inventory Program as a first step toward achieving this reduction.

The Dental Inventory Program will provide CCCSD with more comprehensive information on what dental offices are discharging and will help to better promote the use of dental Best Management Practices (BMPs) to control mercury sources. All dental offices that generate mercury wastes in CCCSD's service area will be required to complete an Inventory Report Form which identifies the dental office's current BMPs on proper disposal of mercury wastes. By using BMPs, dentists can easily reduce their mercury wastes, which we anticipate will significantly reduce CCCSD's mercury discharge into the Bay.

◆ Mercury pollution prevention is the answer

Pollution prevention is the best approach to reduce the release of mercury into the environment. CCCSD's Dental Inventory Program is the next step in our campaign to control mercury pollution. CCCSD already encourages people to bring mercury thermometers, elemental mercury, fluorescent lamps and other mercury-containing products to our HHW Collection Facility for proper disposal.






It is more effective to contain and dispose of mercury waste at the source than to develop expensive treatment and disposal technologies to manage it after dilution with wastewater. The California Dental Association agrees and has expressed support for State regulations encouraging small businesses to implement pollution prevention practices designed to reduce targeted wastes, including mercury.

◆ Let's work together

BMPs are some of the most effective ways to prevent mercury from reaching the sewer. Work with CCCSD as partners in our mercury pollution prevention program by incorporating the BMPs contained in this fact sheet into your office. For more information, refer to the CCCSD web site www.centralsan.org.

Mercury Wastes Collected through the CCCSD Household Hazardous Waste Facility during 2005			
Mercury-Containing Devices	# of items	Units	Total Pounds Mercury
Thermostats (3 gms/unit)	168	each	1.10
Thermometers (1 gm/unit)	2,044	each	4.50
Elemental Mercury (weighed)	89.75	pounds	89.75
Switches (weighed – minus 10% for container wt)	0.5	pounds	0.45
Fluorescent Lamps (5.7 mg mercury/foot of lamp)	36,071	feet	0.45
Total Mercury			96.25
Paints, Pesticides & other compounds containing mercury but with unknown concentrations	16	container	50.7



	Sewage collection and wastewater treatment (and Household Hazardous Waste collection service) for 303,980 people		CCCSD's Headquarters Office Building, treatment plant, and HHW Collection Facility are located in Martinez
	Wastewater treatment for 135,845 residents in Concord and Clayton by contract and Household Hazardous Waste collection service		CCCSD's Collection System Operations Division (sewer maintenance) is based in Walnut Creek
	Household Hazardous Waste collection service only		

Together, we can work to protect our environment.