



EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE DENTAL CATEGORY

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BACKGROUND

Under the authority of the Clean Water Act (CWA) of 1972, the Environmental Protection Agency (EPA) is proposing new technology requirements for all new and existing dental practices that use dental amalgam, which is the main source of mercury discharges into publicly owned treatment works (POTWs). The proposed rule would require dental offices to use amalgam separators and best management practices (BMPs) for capturing mercury and other metals before they are discharged into POTWs.

This comment concludes that the EPA's methodology in support of the proposed rule is flawed because it fails to estimate the net benefits of the proposed rule or to define a baseline of amalgam discharge into POTWs and surface waters in the absence of federal regulation. Additionally, the EPA overestimates the release of mercury into surface waters by using outdated studies that underestimate current mercury removal rates of POTWs.

FINDINGS

The EPA has failed to

1. *estimate the net benefits of the proposed rule.* The EPA argues that it cannot determine whether the rule has net benefits for society. However, the EPA ignores a recent Food and Drug Administration (FDA) report on studies of methylmercury in fish, which show no health effects from small increases in methylmercury exposure and that the consumption of beneficial nutrients in fish may outweigh any danger for a slight increase in exposure to mercury.
2. *explicitly define a baseline for amalgam discharge in the absence of federal regulation.* The EPA assumes that the amount of discharge will not change without the new rule. However, state and local governments and dental offices are already working together to lower the discharge from dental procedures. Recent multiple state research shows that the amounts of mercury being discharged into water are already declining at an average annual rate of 3.7 percent, without new federal regulation.

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3. *use recent studies that show that POTWs capture more mercury than anticipated.* The EPA uses a 30-year-old study that shows a lower rate of capture in POTW of mercury than recent studies show. Recent studies show that the proposed rule would have a smaller impact on capture than assumed by the EPA. The installation of amalgam separators will result in much smaller reduction of discharge of mercury in surface water of 236 pounds rather than a reduction of 860 pounds of mercury claimed by EPA.

RECOMMENDATIONS

The EPA should

- perform a cost-effectiveness study using the number of dental procedures rather than the number of dentist chairs, and investigate more closely the response of dentists to state regulation of amalgam;
- conduct an empirical analysis of how their estimated reduction in dental amalgam discharge into surface waters will improve human health, and should consider the FDA's report on mercury;
- compare the effects of this rule with an improved dynamic baseline that accounts for the fact that many states and local governments continue to enact mandatory and voluntary programs to collect dental amalgam; and
- use more recent POTW mercury pass-through rate estimates instead of a 30-year-old estimate.