

Subcategory. In the December 2000 final rule, EPA established, for the Metals Treatment and Recovery Subcategory, direct discharge limitations and standards as well as pretreatment standards for selenium and 15 other metal pollutants. The model technology for the BPT, BAT, PSES and PSNS limitations and standards was primary chemical precipitation, liquid-solid separation, secondary chemical precipitation, clarification, and sand filtration. EPA is not proposing to delete the New Source Performance Standards (NSPS) for selenium because the standards are based on a different model treatment system involving the use of selective metals precipitation.

While the data demonstrate that the technology EPA evaluated as the basis for the BPT, BAT, PSES, and PSNS limitations and standards removes selenium, they also show that selenium removal was achieved only in the last stage of the model treatment system—the sand filtration polishing step. The sand filtration polishing step was included in the model technology to ensure compliance with total suspended solids limits (TSS) and not designed to achieve specific metal removals. While it is true that the removal of solids associated with sand filtration will include the removal of associated metals, these metals removals are not achieved at a consistent or predictable rate. It was not EPA's intention to regulate a metal for which removals were obtained only during this final, polishing step of an extended treatment train. EPA is not certain that the identified removals were not an artifact of the particular data set or that such removals are consistent and predictable with this technology. While removals were observed, EPA is not certain that facilities would be able to achieve the consistent removals required for compliance with a specific regulatory limit for selenium. Selenium is the only metal pollutant parameter regulated by the CWT regulation that falls into this category. The docket includes documents which describe EPA's review of the selenium data (DCS 47.1 and 47.2).

Although EPA proposes to delete the regulatory limits for selenium in the selected sections, operation of treatment systems required to achieve compliance with the 14 other metals limits will ensure some continued removal of selenium, even if not at a consistent and predictable rate. EPA estimates that assuming no selenium removals would decrease EPA's December 22, 2000, estimated metals subcategory pollutant reductions by 53 lbs/yr or nearly zero percent of the total estimated reduction

of 163 million lbs/yr. Expressed as toxic pound-equivalents, the decrease as a result of assuming no selenium removals is 0.014 percent or 59 lb-eq/yr out of the total estimated reduction of 415,383 lb-eq/yr (DCN 47.3).

V. Amendment To Remove Barium, Molybdenum, Antimony, and Titanium From the Oils Treatment and Recovery Subcategory

In the December 2000 final rule, EPA established, for the Oils Treatment and Recovery Subcategory, direct discharge limitations and standards for barium, molybdenum, antimony, and titanium as well as 18 other pollutants; and pretreatment standards for barium, molybdenum, and antimony as well as 11 other pollutants. The model technology that was the basis for the BPT, BAT, NSPS, and PSNS limitations and standards was emulsion breaking/gravity separation, secondary gravity separation and dissolved air flotation (DAF). The PSES model technology basis was emulsion breaking/gravity separation and DAF.

After publication of the final rule, members of the regulated community evaluated different engineering strategies for complying with the promulgated limitations and standards. Several companies and a trade association submitted new information to EPA demonstrating that the model technology did not consistently remove certain pollutants from oils wastestreams in specified circumstances. They concluded and reported to EPA that the limitations and standards were not technically achievable, petitioning EPA to delete these pollutants from the regulated parameters.

Based on the data submitted to the Agency concerning metals removal and the model technology, EPA reexamined the technology to determine whether it would achieve consistent and predictable removals of metal pollutants. As noted above, the model technology consists of emulsion breaking/gravity separation, secondary gravity separation and DAF. During the DAF phase of treatment, surface active agents, coagulating agents, and polyelectrolytes are added to the wastewater and the pH of the system is adjusted. The effect of the addition of coagulating agents and pH adjustment is to promote precipitation of metals and their consequent removal. Different metals are removed more effectively at different concentrations of coagulating agents and at different pH levels. EPA examined its data base to identify which of the metals pollutants were removed consistently and predictably by the

treatment system that was the basis for the final limitations. The result of this review demonstrated that removals were not consistent and predictable for the following pollutants: Barium, molybdenum, antimony and titanium. As a result, EPA proposes to remove the limitations and standards for barium, molybdenum, antimony and titanium from Subcategory B and modify the related provisions of Subcategory D to reflect these changes.

Even though this amendment would delete the limitations and standards for these four metal pollutants, the control of other metal pollutants ensures some incidental removals for these parameters. For direct discharge facilities, limitations for nine other metals remain in place. For indirect discharge facilities, pretreatment standards for six other metals remain in place.

A. Barium

EPA proposes to amend 40 CFR part 437 by deleting the respective BPT, BAT, NSPS, PSES, and PSNS limitations and standards for barium from §§ 437.21, 437.23, 437.24, 437.25 and 437.26. Section VI below describes the methodology used to revise the related segments of the Multiple Wastestreams Subcategory to reflect deletion of barium from the Oils Treatment and Recovery subcategory.

EPA received information and data from several companies and a CWT trade association concerning barium concentrations in different types of waste receipts treated at CWT facilities. EPA evaluated this information and concluded that its model technology would not reliably and consistently remove barium to the limits required in the oils subcategory. The record includes the additional information provided to the Agency with the request for changes to the regulation and EPA's review of that information (DCNs 43.2.49, 43.2.51, 43.2.54, 43.2.60, 44.1.1, 44.2, 44.3, 45.29.1, and 47.7).

The commenters noted that CWT facilities accept a variety of oily waste receipts that contain barium including used lubricating oils and greases and oil and gas extraction drilling fluids and brine. The information and data indicates that barium is usually precipitated as barium sulfate and that sedimentation rather than dissolved air flotation would provide more consistent barium removals.

EPA's single-stage DAF model treatment system was designed primarily to remove suspended solids and dispersed oil and grease from oily wastewater. The use of treatment chemicals provides an effective means