

Bromide
Chloride
Fluoride
Sulfide
Aluminum
Barium
Boron
Cobalt
Iron
Manganese
Titanium
Tin
Algicides
Chlorinated Organic Compounds
Pesticides
Surfactants
Radioactivity

A number of these parameters (including bromide, chloride, boron, cobalt, iron, manganese, titanium, and tin) are proposed for deletion because they are relatively less toxic than priority pollutants for which the Agency is proposing to require testing (see, "Reporting of Additional Pollutants for Some POTWs" (at III.B.3.b)); and the levels of these pollutants in most municipal discharges are low. EPA is proposing to delete algicides, pesticides, and chlorinated organic compounds because the Agency does not believe it is relevant to ask for information about these contaminants at this level of generality.

EPA considered, but does not include as part of today's proposal, requirements that all applicants test and report on sulfide and sulfate concentrations in effluents. Sulfide is of concern because the anaerobic decomposition of sewage and other naturally deposited organic material is a major source of hydrogen sulfide. EPA considered proposing monitoring requirements for sulfate because high sulfate concentrations, which are caused by sewer corrosion, are converted anaerobically to hydrogen sulfide. Hydrogen sulfide is toxic to aquatic life; it also biologically reoxidizes on sewer walls that are exposed to air, forming sulfuric acid that corrodes the concrete of the sewer channels. It was considered that, based on this monitoring information, the permit writer could set permit limits for sulfide and sulfate or to require appropriate best management practices. These monitoring requirements, however, were not included as part of today's proposed requirements because of the view that sulfide is rapidly converted to sulfate in aerobic waters, which rapidly dissipates its toxic risk. In most instances, maintaining monitoring requirements and permit limits for dissolved oxygen to maintain attainable uses of receiving waters will adequately safeguard receiving waters

from toxic risks due to sulfide or sulfate potentially contained in effluents. Regarding corrosivity within the sewer system, the Agency believes that, in general, the POTW is in a better position than the permit writer to address such concerns. Special considerations may lead to the requirement that some applicants submit analytical results for these chemicals, as determined on case-by-case basis. EPA invites comment on these conclusions.

The Agency also considered testing for surfactants, but is not proposing to require such testing as part of this rule because: most POTWs do not discharge surfactants at toxic levels; the Agency has not developed water quality criteria for surfactants; and sources are difficult to control. In cases where surfactants in municipal wastestreams occur at toxic levels, the Agency believes that whole effluent toxicity (WET) testing should reveal any toxicity arising from surfactants. EPA invites comment on this approach.

The Agency also considered including monitoring requirements for three additional nonconventional pollutants: aluminum, barium, and fluoride; because of their regular appearance in analytical results from the numerous pollutant scans reviewed during preparation of the proposed rule and because published criteria exist for these three conventional pollutants. But such requirements have not been included on the proposed rule for the following reasons:

(1) Toxicity problems related to excess aluminum concentrations, especially for aquatic organisms, occur primarily in acidic receiving waters (most often in waters with pH less than 6.0) having low hardness levels (i.e., concentrations of calcium less than 2.0 mg/l). The majority of effluent water analyses reviewed did not contain sufficient aluminum concentrations to likely impair beneficial uses of receiving waters;

(2) Although barium regularly appeared in the pollutant scans of effluents reviewed by EPA, the concentrations reported in all samples remained below the 1.0 mg/l Gold Book criterion value for barium in domestic water supplies; and

(3) According to the 1972 "Blue Book", potentially adverse physiological effects due to excess fluoride concentrations increase with increasing environmental temperatures. Consequently, recommended criteria for fluoride range from 1.4 to 2.4 mg/l for average annual air temperatures of 50 to 91°F. Concentrations for the majority of reported results from the many pollutant analyses reviewed by EPA

revealed that although fluoride was a regular constituent of effluents, in the majority of the instances it occurred at concentrations less than suggested Blue Book criteria.

At this time, based on information currently available to EPA, concentrations of aluminum, barium, and fluoride in the majority of effluents are generally less than those necessary to produce significant risk for beneficial uses of receiving water. As such, EPA concludes at this time that it is unwarranted to require all dischargers to monitor for these chemicals as part of the municipal application process. Individual permit writers can, nevertheless, require analysis of any or all of these chemicals, wherever treatment works or environmental considerations suggest that such requirements are warranted. Further, EPA intends to continually review this conclusion as more effluent monitoring results become available, and continues to seek informed input from outside EPA on this decision.

b. Reporting of Additional Pollutants for Some POTWs

As discussed above, the Agency proposes to require all POTWs to report information on pollutant parameters commonly associated with POTW effluents. Proposed § 122.21(j)(3) (see also, proposed Part A in the Supplemental Application Information part of Form 2A) requires the reporting of additional parameters listed in proposed Appendix J, Table 2, by those POTWs that the Agency believes are most likely to discharge toxic pollutants to receiving waters. Toxic pollutants may interfere with POTW performance or pass through the POTW to receiving waters, thus potentially causing adverse water quality impacts.

Certain POTWs discharge toxic organic and inorganic pollutants primarily as a result of contributions from non-domestic sources. Section 122.21(j)(3)(iii) of today's proposal requires the applicant to submit monitoring data for the pollutants listed in proposed Appendix J, Table 2, if the POTW meets any one of the following criteria: (1) The POTW has a design flow rate equal to or greater than 1.0 mgd; (2) the POTW has a pretreatment program or is required to have one under 40 CFR Part 403; or (3) the POTW is otherwise required to submit this data by the permitting authority.

POTWs with a design flow equal to or greater than 1.0 mgd are designated as "major" POTWs by the Agency. EPA estimates that roughly 25 percent of the approximately 16,000 POTWs nationwide have design flows of at least