

PRETREATMENT CORNER

Potential Drinking Water Treatment Effluent Guidelines

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EPA is in the process of planning a new rulemaking to address the direct discharge of drinking water treatment residuals to surface water, as well as the indirect discharge of residuals to wastewater treatment plants. This rulemaking may include large, medium and small drinking water facilities that discharge aluminum salts, arsenic, desalination concentrates, iron salts, lime, organic matters, polymer, radionuclides, suspended solids or other residuals. It is important to note, however, that EPA has not made any decisions about whether any discharge controls are necessary for residuals generated by drinking water treatment facilities. More detailed investigations are warranted in order to support a final action.

In preparation for publication of a *Notice of Proposed Rulemaking*, which is planned for August 2006, EPA is collecting and analyzing data on drinking water treatment technologies, direct and indirect discharges of residuals, and environmental impacts from the discharge of residuals. Based on this information, EPA will decide whether the promulgation of effluent guidelines is necessary. EPA is required to take final action by September 2007.

The various types of information EPA requires for decisionmaking includes some of the following areas:

- Typical forms of residuals, such as liquid, slurry, sludge or solid.
- Typical raw wastewater pollutants, loads and concentrations for various drinking water treatment facility wastestreams.
- Typical contaminants found in residuals sludge, such as treatment chemicals and thickening agents; and the likely range of contaminant concentrations.
- Data from discharge monitoring reports (DMRs) and NPDES permits.
- Likely source of pollutant contaminants in drinking water treatment residuals such as source water and water treatment chemicals.
- Pollution prevention or treatment options for drinking water residuals.
- Common management options for drinking water residuals, including, discharge to surface waters, wastewater treatment plants or land application.
- Regulatory controls and issues that affect residuals management, including types of permits, such as individual or general permits, and permit expiration dates.

EPA intends to collect data, in part, by distributing a questionnaire to a sample of water treatment facilities serving a population in excess of 10,000 people. The questionnaire will ask for basic information that will help quantify any adverse environmental impacts from the discharge of residuals from drinking water treatment facilities as well as how residuals are generated and managed. EPA will then classify drinking water treatment facilities by treatment practices and residuals characteristics. Any additional data needed may be collected through a follow-up detailed questionnaire. A notice was published in the July

19, 2006 *Federal Register* announcing EPA's intent to distribute this questionnaire following OMB approval. Comments on this request were accepted until August 18, 2006.

The "Drinking Water Treatment Plant Questionnaire" can be viewed at: <http://www.epa.gov/waterscience/guide/dw/2176survey01.pdf>. There is also a document available which describes how EPA plans to use the data obtained from the questionnaire. This guide is available at: <http://www.epa.gov/waterscience/guide/dw/2176ss01.pdf>.

How does this impact you as a Pretreatment Coordinator? First, your municipality or municipal authority may own and/or operate a water treatment facility that may receive this questionnaire. Second, if EPA does decide to develop an effluent guideline governing drinking water treatment plant residuals, you may be required to permit your own facility. That is one to ponder over.

On the other hand, implementation of an effluent guideline may assist in the prevention of clogged sewer lines due to the accumulation of solids in the pipe from the water treatment plant that discharges residuals to your sewer system. An effective effluent guideline for drinking water treatment plants may also improve wastewater treatment plant operation by improving settleability, which can be affected by water treatment plant residuals. Other recognized problems at wastewater treatment plants from the discharge of water treatment plant residuals include, but are not limited to, increased phosphorus from corrosion control chemicals, inhibition due to higher levels of metals from coagulants and corrosion control chemicals, and solids overload conditions.

An effluent guideline regulating indirect dischargers from drinking water treatment plants may also trigger the application of local limits to the discharge. What kind of surcharge program does your municipality have in effect now? You may want to revisit how surcharges are applied.

A drinking water treatment effluent guideline will prompt water treatment plant designers and operators to evaluate and implement better residuals management techniques. So this is a good thing.