



U.S. Environmental Protection Agency
Office of Water
Fact Sheet



Office of Science & Technology
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2005 and 2007 Biennial Reviews

Section 405(d)(2)(C) of the Clean Water Act requires EPA to review the sewage sludge regulations every two years. The purpose of such reviews is to identify additional toxic pollutants and promulgate regulations for those pollutants consistent with the requirements set forth. In fulfilling this commitment for Biennial Review Cycles 2005 and 2007, EPA collected and conducted a review of publicly available information. The Agency searched known databases and the published literature designed to capture available information on occurrence, fate and transport, and human health or ecological effects, as well as other relevant information for pollutants that may occur in U.S. sewage sludge. Based on an analysis of the collected information, there is not sufficient data at this time on pollutants to conduct exposure and hazard assessment for deriving scientifically supportable numerical standards. Given this, EPA will continue to assess the availability of sufficient information for these and other pollutants during subsequent biennial reviews pursuant to the CWA section 405(d)(2)(C).

Standards for the Use or Disposal of Sewage Sludge

Under Section 405(d), EPA establishes numerical limits and management practices that protect public health and the environment from the reasonably anticipated adverse effects of chemical and microbial pollutants in sewage sludge. On February 19, 1993, EPA promulgated the CFR 40 Part 503 *Standards for the Use or Disposal of Sewage Sludge*, resulting in numerical standards for ten metals and operational standards for microbial organisms. The 1993 rule established requirements for the final use or disposal of sewage sludge when it is: (1) applied to land as a fertilizer or soil amendment; (2) placed in a surface disposal site, including sewage sludge-only landfills; or (3) incinerated. These requirements apply to publicly and privately owned treatment works that generate or treat domestic sewage sludge and to anyone who uses or disposes of sewage sludge.

Since promulgation of 40 CFR 503, there have been three subsequent rounds of review: (1) the Agency's decision in 2002 that regulation of dioxin and dioxin-like compounds disposed via incineration or land-filling was not needed for adequate protection of public health and the environment, (2) the Agency's decision in 2003 that regulation of dioxin and dioxin-like compounds in land-applied sewage sludge was not needed for adequate protection of public health and the environment (68 FR 61084), and (3) a review that resulted in the ongoing analysis of nine pollutants identified in 2003. EPA expects to evaluate these nine pollutants, in addition to molybdenum, and conduct an updated exposure and hazard assessment using recently released Targeted National Sewage Sludge Survey data prior to taking action or determining whether to propose regulating any of these pollutants under section 405(d) of the CWA.

Current Biennial Review

In conducting the biennial reviews for 2005 and 2007, EPA collected publicly available information on pollutants. The purpose of reviewing information on pollutants, or potential pollutants, is to assess the availability and sufficiency of the data to conduct exposure and hazard assessments. Exposure and hazard assessments, where sufficient data exist, allow the Agency to determine the potential for harm to public health or the environment following use or disposal of biosolids. Some of the information generally needed to conduct exposure and hazard assessment includes the ability to detect and quantify a given pollutant in sewage sludge, acceptable concentration data in sewage sludge, fate and transport data for pollutants that may be present in sewage sludge, chemical and physical properties, and toxicity to human and ecological receptors. The Agency assessed whether data for pollutants were sufficient to conduct an ecological exposure and hazard assessment.

Results of the Literature Search

During the Agency's search of known databases and the open literature, the Agency collected and reviewed publicly available information according to standard EPA protocol. There is not sufficient information at this time on evaluated pollutants to conduct exposure and hazard assessment for deriving scientifically supportable numerical standards or to determine what regulatory action might be necessary. At this time, EPA has not identified additional toxic pollutants for regulation.

Next Steps

The Agency will continue to assess the availability of sufficient information for these and other pollutants during subsequent biennial reviews pursuant to the CWA section 405(d)(2)(C). In addition, the Agency is evaluating its process for how future biennial reviews will be conducted. For example, for future biennial reviews, the Agency is re-evaluating its process of only relying solely on IRIS or OPP HHBs.

Additional Information

To get more information about the TNSSS, please contact Rick Stevens at (202) 566-1135 or email him at stevens.rick@epa.gov.