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SAFE DRINKING WATER ACT

EPA Should Improve Implementation of Requirements on Whether to Regulate Additional Contaminants

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Highlights

Highlights of GAO-11-254, a report to congressional requesters

Why GAO Did This Study

Under 1996 amendments to the Safe Drinking Water Act, every 5 years the Environmental Protection Agency (EPA) is to determine for at least five contaminants, such as chemicals, whether regulation is warranted, considering those that present the greatest public health concern. Since 1996, EPA had not recommended any new contaminants for regulation until February 2011, when it reversed its controversial 2008 preliminary decision to not regulate perchlorate, an ingredient in rocket fuel and other products. GAO was asked to (1) evaluate the extent to which EPA's implementation of the 1996 amendments has helped assure the public of safe drinking water and (2) review the process and scientific analyses used to develop the 2008 preliminary regulatory determination on perchlorate. GAO analyzed relevant statutory provisions and regulatory determination documents and interviewed EPA officials.

What GAO Recommends

GAO's 17 recommendations include that the EPA Administrator require (1) development of criteria to identify contaminants that pose the greatest health risk, (2) improvements in its unregulated contaminants testing program, and (3) development of policies or guidance to interpret the broad statutory criteria. EPA agreed with 2 recommendations but took the position that developing guidance and taking the other recommended actions are not needed. GAO believes EPA needs to adopt all of the recommendations to better assure the public of safe drinking water.

View GAO-11-254 or key components. For more information, contact David C. Trimble at (202) 512-3841 or trimbled@gao.gov.

What GAO Found

Systemic limitations in EPA's implementation of requirements for determining whether additional drinking water contaminants warrant regulation have impeded the agency's progress in assuring the public of safe drinking water. EPA's selection of contaminants for regulatory determination in 2003 and 2008 was driven by data availability—not consideration of public health concern. EPA does not have criteria for identifying contaminants of greatest public health concern and based most of its final determinations to not regulate 20 contaminants on the rationale of little or no occurrence of the contaminants in public water systems. Moreover, EPA's testing program for unregulated contaminants—which can provide key data to inform regulatory determinations—has fallen short in both the number of contaminants tested and the utility of the data provided because of management decisions and program delays. In addition, EPA has not developed policies or guidance for interpreting the amendments' broad statutory criteria for selecting contaminants and making regulatory determinations, increasing the potential for inconsistent decision making. Also, the credibility of some of EPA's regulatory determinations is limited by a lack of transparency, clarity, and consistency of key documents. For example, EPA made decisions on nine contaminants relying on tests that were not sensitive enough to detect them at the agency's health risk benchmarks. Furthermore, EPA did not clearly and consistently disclose this limitation and its effect on EPA's analysis.

In making its preliminary regulatory determination on perchlorate in 2008, EPA used a process and scientific analyses that were atypical, lacked transparency, and limited the agency's independence in developing and communicating scientific findings. First, while an intra-agency workgroup typically makes recommendations to the Assistant Administrator for Water on whether to regulate evaluated contaminants, in this case, the Assistant Administrator directed the staff to develop a determination to not regulate and to support a specified exposure level as protective of all populations. This direction was outlined in an agreement between high-level officials at EPA and other federal agencies that is not part of the perchlorate regulatory determination record. Moreover, EPA adopted the National Academies' 2005 perchlorate health assessment—a foundation for EPA's regulatory determination—without using EPA's standard internal scientific review process. This assessment is controversial, especially its sufficiency to protect infants. Also, the credibility of EPA's exposure estimate for perchlorate, which is based on a novel analysis, is reduced by the lack of a comprehensive explanation of the methodology's limitations and uncertainties in the preliminary determination notice. Finally, according to key EPA scientists, the agency mischaracterized important scientific findings on the sensitivity of various age groups to perchlorate exposure. EPA scientists who managed the sensitivity analysis did not agree that it supported the conclusion that the selected exposure level was protective of all populations, which was one component of the aforementioned agreement between EPA and other federal agencies.