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**Highlights**

Highlights of [GAO-07-797T](#), a testimony before the Subcommittee on Environment and Hazardous Materials, House Committee on Energy and Commerce

**Why GAO Did This Study**

Perchlorate has been used for decades by the Department of Defense, the National Aeronautics and Space Administration, and the defense industry in manufacturing, testing, and firing missiles and rockets. Other uses include fireworks, fertilizers, and explosives. Perchlorate is readily dissolved and transported in water and has been found in groundwater, surface water, and soil across the country. Perchlorate emerged as a contaminant of concern because health studies have shown that it can affect the thyroid gland, which helps regulate the body's metabolism, and may cause developmental impairment in fetuses of pregnant women. In 2005, EPA set a reference dose of 24.5 parts per billion (ppb)—the exposure level not expected to cause adverse effect in humans.

Today's testimony updates GAO's May 2005 report, *Perchlorate: A System to Track Sampling and Cleanup Results is Needed*, GAO-05-462. It summarizes GAO's (1) compilation of the extent of perchlorate contamination in the U.S. and (2) review of peer-reviewed studies about perchlorate's health risks. GAO's 2005 report recommended that EPA work to track and monitor perchlorate detections and cleanup efforts. In December 2006, EPA reiterated its disagreement with this recommendation. GAO continues to believe such a system would better inform the public and others about perchlorate's presence in their communities.

[www.gao.gov/cgi-bin/getrpt?GAO-07-797T](http://www.gao.gov/cgi-bin/getrpt?GAO-07-797T).

To view the full product, including the scope and methodology, click on the link above. For more information, contact John Stephenson at (202) 512-3841 or [stephensonj@gao.gov](mailto:stephensonj@gao.gov).

**PERCHLORATE**

**EPA Does Not Systematically Track Incidents of Contamination**

**What GAO Found**

Perchlorate has been found at 395 sites in the U.S.—including 153 public drinking water systems—in concentrations ranging from 4 ppb to more than 3.7 million ppb. More than half the sites are in California and Texas, with the highest concentrations found in Arkansas, California, Texas, Nevada, and Utah. About 28 percent of sites were contaminated by defense and aerospace activities related to propellant manufacturing, rocket motor research and test firing, or explosives disposal. Federal and state agencies are not required to routinely report perchlorate findings to EPA, which does not track or monitor perchlorate detections or cleanup status. EPA recently decided not to regulate perchlorate in drinking water supplies pending further study.

GAO reviewed 90 studies of health risks from perchlorate published from 1998 to 2005, and one-quarter indicated that perchlorate had an adverse effect on human health, and thyroid function in particular. In January 2005, the National Academy of Sciences also reviewed several studies and concluded that they did not support a clear link between perchlorate exposure and changes in the thyroid function. The academy did not recommend a drinking water standard but recommended additional research into the effect of perchlorate exposure on children and pregnant women. More recently, a large study by CDC scientists has identified adverse thyroid effects from perchlorate in women with low iodine levels that are found in about 36 percent of U.S. women.

**Number of Sites and Maximum Perchlorate Concentrations, by State**

