

## Pending “Drinking Water System Security Act of 2009”

A new bill covering drinking water facility security is being considered by the House Energy and Commerce Committee, and will shortly be introduced. Until now, water facilities have been exempt from the requirements of Chemical Facility Anti-Terrorism Standards (CFATS), which expires in late 2009. The [Drinking Water System Security Act of 2009](#) will apparently replace or update those requirements and remove the water facility exemption.

At most water facilities the “substance of concern” is gaseous chlorine, frequently held in one-ton cylinders. Like many hazardous substances, chlorine is a very useful material that also poses significant risk. In this case it is a long-established component of clean drinking water, providing disinfection. It creates the “bleach” smell we might note in our tap water. On the other hand, both sides also used it as a [weapon](#) in WWI, though not a particularly effective one.

Bulk chlorine is transported in one-ton cylinders and 90-ton railcars, and significant accidents have occurred. The largest known transportation release of chlorine in U.S. history resulted from a 2004 [derailment](#) in Macdona, TX. The obvious concern of the Act is that bulk chlorine will be an attractive target for acts of terrorism, and that traditionally “soft” targets such as water plants will make easy prey for someone seeking to release a chlorine cloud. The secondary effects of an act of sabotage at a plant might be service interruptions or distribution of contaminated water.

From the perspective of water facilities the major issue in this pending legislation is likely to be the requirement to assess facility hazards and employ “inherently safer technology” (IST) where appropriate. A perceived rush to replace gaseous chlorine may push systems to default to other forms of disinfection that many feel might not be as reliable and which might jeopardize public health. Risk and the management of it should be on a case-by-case basis, with all costs and benefits weighed, and there concerns that this unilateral approach may not allow that.

Some are describing the new Act as a very comprehensive approach to water security, and more along the lines of a new Bioterrorism Act. For example, it would require updated or new vulnerability assessments, site security plans and emergency response plans. EPA would promulgate new regulations that set up four risk-based tiers based on the susceptibility to, and consequences of, an “intentional act.” Water systems that fall into the highest risk tiers would be charged with developing and implementing measures to lower their risk either by replacing chemicals of concern or by adopting measures to make releases of chemicals less likely. Although EPA would be the principal actor in the bill, there is a substantial State role, though the chain-of-command and decision-making authorities are murky. States would have the lead in determining what steps a high-risk facility must take, and EPA would be required to take enforcement action if they determine that a state has failed to implement that responsibility.

A major concern for States is the lack of specifically authorized funds for them to execute their new duties. Although \$190 million for FY 2011 and “such sums as may be necessary” for four subsequent years would be authorized, EPA is directed to use \$30 million of that, and the feeling for everyone else seems to be “unfunded mandate.”

So where does this leave the States? With primacy programs in 49 States, they implement Federal drinking water requirements and have the most familiarity with the systems. A fully developed set of requirements could simply be “delegated” to them for immediate implementation and enforcement. Further, there is a clear feeling that any State role under the bill needs to be supported by dedicated and sufficient Federal funding. One State recently estimated that full responsibility for the requirements of the new Act would require 20 additional full-time employees (FTEs) at an estimated first year cost of \$1.3 million dollars.

And where does this leave the water facilities? Although already covered under [Risk Management Planning](#) (RMP) requirements, the Act will add an entire new universe to their program. While RMP looks at offsite consequences of an accidental release and management of risk through maintenance and other operational controls, the new Act will get deep in the weeds about evaluating and managing the implications of an intentional act. Facilities will have to go through the same exercises as chemical facilities and assess vulnerability to attack of the premises and their system, including physical security, information technology and computer systems, piping storage and distribution, interruption of service scenarios, annual training and more. This will be a heavy lift for most, especially the smaller systems. They are likely to need much more technical expertise and funding to make it work than what this Act is set to offer.

[AMWA](#) and [ASDWA](#) and other water associations are currently reviewing the draft bill and preparing comments.

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