AWWA Director’s Report

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Recent Development in Water Sector Security

Since drinking water and wastewater systems have been identified as critical to the security of the United States, the National Drinking Water Advisory Council (NDWAC), which is advisory to the U.S. Environmental Protection Agency (USEPA), initiated an effort to develop guidance on good practices in water security.

In the fall of 2003 the NDWAC created a Water Security Working Group (WSWG) to develop recommendations on security practices and programs, incentives for broad adoption of security practices in the water sector, and means to measure the extent of implementation of security practices. The 16-member Group represented a broad range of perspectives including officials from public and private utilities, rate setters, academia, the public health community, technical assistance providers, and community interest groups. I was a member of the WSWG representing the utility sector. The Group was also supported with representatives from the USEPA, Department of Homeland Security, Department of Defense, and the Centers for Disease Control and Prevention.

In May, 2005 the WSWG submitted its comprehensive final report to the NDWAC. The report contains various recommendations dealing with security practices, incentives for the water sector to implement the practices, and measures. The report also identified the following features that utilities should address in developing their security programs:

1. Make an explicit and visible commitment of the senior leadership to security.
2. Promote security awareness throughout the organization.
3. Assess vulnerabilities and periodically review and update vulnerability assessments to reflect changes in potential threats and vulnerabilities.
4. Identify security priorities and, on an annual basis, identify the resources dedicated to security programs and planned security improvements, if any.
5. Identify managers and employees who are responsible for security and establish security expectations for all staff.
6. Establish physical and procedural controls to restrict access to utility infrastructure to only those conducting authorized, official business and to detect unauthorized physical intrusions.
7. Employ protocols for detection of contamination consistent with the recognized limitations in current contaminant detection, monitoring, and surveillance technology.
8. Define security-sensitive information, establish physical and procedural controls to restrict access to security-sensitive information as appropriate, detect unauthorized access, and ensure information and communications systems will function during emergency response and recovery.
9. Incorporate security considerations into decisions about acquisition, repair, major maintenance, and replacement of physical infrastructure; this should include consideration of opportunities to reduce risk through physical hardening and the adoption of inherently lower risk design and technology options.
10. Monitor available threat-level information; escalate security procedures in response to relevant threats.
11. Incorporate security considerations into emergency response and recovery plans, test and review plans regularly, and update plans as necessary to reflect changes in potential threats, physical infrastructure, utility operations, critical interdependencies, and response protocols in partner organizations.
12. Develop and implement strategies for regular, ongoing security-related communications with employees, response organizations, and customers.
13. Forge reliable and collaborative partnerships with communities, managers of critical interdependent infrastructure, and response organizations.
14. Develop utility-specific measures of security activities and achievements, and self assess against these measures to understand and document program progress.

The WSWG report is advisory to the NDWAC. The NDWAC in turn will consider the recommendations in the development of its report to the USEPA. Once the USEPA receives and evaluates the report it will then decide how the security enhancement recommendations to the water sector. Stay tuned.