

Toward Early-Warning Monitoring for Water-System Security: DOE-USGS Collaboration on Development and Testing of Advanced Sensors

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Even before September 11, 2001, government and industry had significant efforts underway to develop systems for early-warning monitoring of hazardous events in water supplies. These efforts were aimed at detecting both accidental and intentional releases of hazardous substances. Now the emphasis on intentional releases is accentuated, and efforts have been intensified. One such effort is a collaboration between the U.S. Department of Energy's Sandia National Laboratory (Sandia) and the U.S. Geological Survey (USGS) to develop and field-test advanced sensors for water monitoring. Sandia has a broad array of advanced sensors under development that hold promise for detecting physical, chemical, and biological threats. USGS has a national field infrastructure of people, monitoring stations, laboratories, and data-handling systems that is well suited for field-testing of sensors. The testing program, and the commercialized sensing systems that result from it, should provide an extra measure of security for our water systems.