INTELLIGENCE BULLETIN NO. 199
Title: (U//FOUO) Threat of Terrorists Contaminating or Disrupting US Drinking Water at Treatment and Storage Facilities
Date: 5 June 2006

(U) THIS IS A JOINT FBI AND DHS BULLETIN.

(U) THREAT LEVEL: YELLOW (ELEVATED)

(U) THIS INTELLIGENCE BULLETIN PROVIDES LAW ENFORCEMENT AND OTHER PUBLIC SAFETY OFFICIALS WITH SITUATIONAL AWARENESS CONCERNING INTERNATIONAL AND DOMESTIC TERRORIST GROUPS AND TACTICS.

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(U//FOUO) Threat of Terrorists Contaminating or Disrupting US Drinking Water at Treatment and Storage Facilities

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(U) This bulletin will be followed in the near future by a more in-depth assessment of water system vulnerabilities prepared by the Department of Homeland Security.

(U//LES) Illegal intrusions at water supply facilities housing treatment and storage units have demonstrated that terrorists could potentially access critical points in these facilities to contaminate or disrupt US water supplies. The FBI is aware of suspicious activities involving intrusions but has no specific or credible information suggesting a current terrorist threat to the nation's water systems.

(U//LES) Terrorists who access water treatment or storage facilities could disconnect or steal treatment equipment, or they could introduce chemical or biological agents to water after the point of treatment, increasing the effectiveness of the attack. Disconnecting treatment equipment could result in illnesses or deaths from natural waterborne pathogens. Alternatively, terrorists could target water system pumping equipment and cause a denial of service.

(U) Water: An Identified Target

(U//LES) FBI Intelligence Bulletin no. 97, dated 26 November 2003, described al-Qa'ida's

interest in growing biological agents that could potentially be used to contaminate US water systems and warned of al-Qa'ida's plans to conduct surveillance of possible water supply targets. A 2003 fatwa posted on an Islamic Web site included justifications for the poisoning or disruption of US water supplies. A prominent Saudi cleric also e-mailed a statement to the London-based Arabic magazine *al-Majallah* claiming that al-Qa'ida would not rule out "poisoning drinking water in US and Western cities." Lone offenders and domestic extremist groups such as Aryan Nations have periodically threatened to contaminate US water supplies.

(U//LES) The FBI assesses that introducing a chemical or biological agent post-treatment, such as at a water storage facility, would be more likely to succeed than contaminating a large surface water reservoir, provided the terrorist had knowledge and access to the facility. The vandalism incidents cited in this bulletin demonstrate that terrorists could gain such access.

(U) Intrusions to Water Treatment, Storage, and Pump Facilities

(U//LES) Reported cases of unauthorized entry and vandalism illustrate the ease with which intruders can locate and enter water treatment and storage facilities. Although none of these cases had a known nexus to terrorism, terrorists could exploit these vulnerabilities to target water treatment, storage, and pump facilities. In each of the following cases, intruders gained undetected access to system pumps or treated water ready for distribution. The systems cited below serve populations ranging from 500 to more than 400,000 people.

- (U//LES) In September 2005 four water towers reported intrusions. Water in two of the tanks tested positive for coliform and *Escherichia coli*, which could indicate the presence of harmful bacteria. Evidence indicated that individuals cut or removed locks and protective vents from the towers, climbed tower ladders, attempted to open hatches, and crawled under fences to gain entry.

- (U//LES) In November 2004 an individual entered a water treatment plant and adjusted the chlorine regulator to inject one-third more chlorine than usual. There was no sign of forced entry, and the individual most likely entered by climbing over the fence's loose barbed wire and opening the control room's door with a penknife.

- (U//LES) In November 2004 a dumpster was rolled onto its side next to a water storage tank, apparently in order to reach the access ladder to the top. Fingerprints found on the water tank indicate the perpetrator may have attempted to access the stored water.

- (U//LES) Between January and May 2003, five reported incidents included dumping an unknown material into a water supply reservoir, removing the lock from a water authority compound gate, cutting security gate locks at a state park water treatment plant, cutting the fence and lock on a water storage tank hatch, and planting a fake pipe bomb at a reservoir pumping station.

(U//LES) Additional instances of water plant intrusion and potential surveillance have included turning off a valve switch, tampering with surveillance cameras, photographing pump and treatment facilities, stealing a water facility computer, following personnel through a security gate

to enter a treatment plant, and cutting locks, fences, and water tank security hatches.

(U) Reconnaissance of Water Systems

(U//LES) Terrorists must gain some level of knowledge about a water treatment system in order to conduct a successful attack. Public sources, such as utility Web sites, could provide useful information for targeting surveillance activities and planning an attack, including key facility locations, methods of treatment, chemicals stored on-site, sources of water, water storage time, transmission time in pipes, capacity to store finished water, and the population served. Some water utilities also include this information in their annual Consumer Confidence Reports. Even without this widely available information, it is not difficult to locate treated water storage facilities because many systems use large ground-level or elevated tanks visible from a distance.

(U) Water Contamination

(U//LES) A terrorist who gains undetected access to a water system's treatment building or finished water storage tank could introduce a chemical or biological agent. A number of factors, such as the layout of the system pipes, dose of the agent, and method of introducing the agent, would impact the distribution and effects of a water contamination attempt. The first sign of such an attack may appear as a cluster of illnesses reported to public health officials. Such an attack could promote fear and panic in the community even if a contamination attempt did not achieve massive health effects. The uncertainty associated with the lethal doses and persistence of many biological agents in drinking water could increase public fear.

(U) Removal of Treatment Apparatus

(U//LES) Disabling disinfection equipment before adding a biological agent could increase the effectiveness of an attack. Terrorists entering a water plant's treatment facility could destroy, disengage, or steal the treatment equipment and chemicals. Such a theft could disrupt the water supply in communities lacking backup chemicals and equipment. Even without the addition of an agent, disconnecting or neutralizing disinfection systems could pass naturally occurring biological contaminants on to consumers. In at least seven cases, vandals entered US water treatment facilities and stole the chlorine gas used to disinfect the water. While the motivations for these thefts are unknown, they illustrate that terrorists could remove treatment chemicals from water facilities to conduct an attack.

(U) Water Supply Disruption

(U//LES) In the incidents cited in this bulletin, intruders at water facilities remained undetected while having open access to system pumps and treatment equipment. With this access terrorists could destroy wellhead and pump equipment with minimal effort, since most equipment is neither large nor complex. Terrorists could use the disruption of water service as an end in itself, perhaps escalating the effects by attacking several supplies in close proximity.

(U//LES) Disruption could also be used as a diversionary tactic or to increase the impact of simultaneous traditional attacks. For example, the destruction of primary water supply equipment

would severely degrade firefighting ability at the many systems that are not interconnected with other supplies. A large disruption would cause communities with such systems to suffer greater economic hardship and would have a particularly negative impact on hospitals, schools, commercial businesses, and industrial plants. The effects of an attack and the resumption of regular service could be prolonged as replacement pumps and other equipment are secured and installed, particularly at systems where equipment is uniquely designed for the specific utility.

(U) Conclusion

(U//LES) Law enforcement officials should be aware of the potential terrorist threat to US water treatment and storage facilities and maintain contact with these facilities to ensure the prompt reporting of suspicious activities. Law enforcement officials should also be alert to the presence of suspicious materials or notations regarding water facilities during the course of authorized searches. However, law enforcement should view these indicators in the context of all available information in order to determine whether such information should be reported to the local Joint Terrorism Task Force.

(U) Recipients should immediately report suspicious or criminal activities potentially related to terrorism to their local FBI Joint Terrorism Task Force and the Homeland Security Operations Center (HSOC). FBI regional phone numbers can be found at www.fbi.gov/contact/fo/fo.htm. The HSOC can be reached via telephone at 202-282-8101 or by email at HSCenter@dhs.gov.

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Return to:	Threat Analysis Unit, Counterterrorism Analysis Section, Counterterrorism Division, FBIHQ, Room 4371

Marking Instructions: Circle the appropriate response accordingly.

1 Strongly Disagree
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3 Neither Agree or Disagree
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NA Not Applicable

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Thank you for cooperation and assistance.

Product Title **(U//FOUO) Threat of Terrorists Contaminating or Disrupting US Drinking Water at Treatment and Storage Facilities**

Product Date **5 June 2006**

Customer _____

Intelligence Function/Investigative Program _____

Quality						
1	2	3	4	5	NA	This product was delivered within established deadlines.
1	2	3	4	5	NA	The product was timely and relevant to your mission, programs, priorities or initiatives.
1	2	3	4	5		The product was clear and logical in the presentation of information with supported judgments and conclusions.
1	2	3	4	5		The product is reliable i.e., sources well documented and reputable.

Value						
1	2	3	4	5	NA	The product contributed to satisfying intelligence gaps or predicating cases or intelligence operations, especially in previously unknown areas.
1	2	3	4	5	NA	The product resulted in change in investigative or intelligence priorities and/or a shift from unaddressed to addressed work, or vice versa.
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1	2	3	4	5	NA	The product identified new information associated with pending matters or offered insights into information that could change the working premise in a program or initiative.

Comments