

PRETREATMENT CORNER

Homeland Security and Industrial Pretreatment Programs

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EPA developed a four-page summary of the achievements of the National Pretreatment Program during the years from 1973-2003 (EPA 833-F-03-001). It mentions that strategic partnerships, beyond EPA and POTWs, involve approximately 1,500 communities and 27,000 industrial facilities across the nation. These partnerships protect drinking water supplies by reducing levels of pollutants discharged into source waters, prevent sanitary sewer overflows through FOG control programs, extend the life of wastewater infrastructure through the implementation of corrosion control, protect workers from harmful fumes by the establishment of discharge limits, and ensure proper disposal of decontamination shower wastewater. What was this last one? Decontamination shower wastewater? Could this be part of Homeland Security Initiatives?

Currently, the *National Strategy for Homeland Security* has identified 13 critical sectors, one of which is water. The water sector is further divided into fresh water supply and wastewater collection and treatment. In response to the *Public Health Security and Bioterrorism Preparedness and Response Act of 2002*, EPA has developed baseline threat information to use in conjunction with vulnerability assessments. EPA has also provided financial assistance to some water systems to conduct vulnerability assessments and to develop emergency response plans. Four primary areas of concern for the water sector have been identified: (1) physical damage or destruction of infrastructure and other critical assets, including the intentional release of toxic chemicals; (2) actual or threatened contamination of water supplies; (3) cyber attacks on information management systems or other electronic systems; and (4) interruption of services from another infrastructure.

In addition to the above concerns, increased monitoring and enhancement of analytical capabilities for detection of biological, chemical or radiological contaminants is necessary to protect the water supplies. It also involves assessing the effectiveness of clean-up activities. This is where the industrial pretreatment program comes into play.

The National Disaster Medical System (NDMS) is a section within the U.S. Department of Homeland Security, Federal Emergency Management Agency, Response Division, Operations Branch, and has the responsibility for managing and coordinating the Federal medical response to major emergencies and Federally-declared disasters including: natural disasters, technological disasters, major transportation accidents, and acts of terrorism including weapons of mass destruction events. Working in partnership with the Departments of Health and Human Services (HHS), Defense (DoD), and Veterans Affairs (VA), the NDMS Section serves as the lead Federal agency for medical response under the National Response Plan.

Subsequently, HHS has an Office of Emergency Preparedness that developed a program entitled, Metropolitan Medical Response System. The goal of this program is to coordinate efforts of local law enforcement, fire, hazmat, EMS, hospital, public health and other personnel to improve response capabilities in the event of a terrorist attack. Wastewater treatment staff fall under this "other personnel" category. A large metropolitan POTW learned of this program when contacted by a local hospital who was proposing to install decontamination shower facilities onsite as required under this program. Currently in Pennsylvania, the Philadelphia and Pittsburgh metropolitan areas have Metropolitan Medical Response Systems in effect.

However, most wastewater treatment plant personnel probably do not have the information available at this time that is needed to identify "decontamination contaminants" or how to effectively treat them at their wastewater treatment facilities. Thus steps in the industrial pretreatment coordinator, the staff detective. As mentioned in an earlier paragraph, these decontamination contaminants will most likely fall under biological, chemical or radiological agent categories. EPA, AMSA and WERF have begun to compile such information, in addition to other federal agencies. EPA also plans to develop an emergency response guidance for wastewater systems and provide training specific to the pretreatment program concerning wastewater security issues.

Vulnerability assessment tools similar to those used for drinking water systems are available for wastewater systems, and will probably be updated as more information becomes available.

President Bush signed a presidential directive on December 17, 2003 that establishes a national policy for Federal departments and agencies, such as EPA, to identify and prioritize critical infrastructure and key resources and to protect them from terrorist attacks. This directive cites EPA is responsible for drinking water and water treatment systems. Though not directly stated, this also includes wastewater facilities since the discharge of pollutants to the source waters impacts drinking water withdrawals. All Federal departments and agencies are tasked with the preparation and submittal of plans for protecting critical infrastructure and key resources. A comprehensive plan is expected later this year.

EPA has already begun its work, you just need to take advantage of what EPA will have to offer. WEF is also offering Wastewater Security Training in 2004. Check their website at www.wef.org/watersecurity for a location near you.