

International Oil Facilities Are a Top Infrastructure Target of Terrorists

Protecting U.S. Oil Facilities

In January 2004, the House Select Committee on Homeland Security released the initial findings of a report, *America At Risk: The State of Homeland Security*, that alleged gaps in the Bush Administration's homeland security efforts. One finding emphasized lax chemical plant security and noted that there are more than 66,000 chemical facilities in cities, towns, and rural areas in the United States.

Oil storage facilities, however, number in the hundreds of thousands and can be even more vulnerable to terrorists than chemical facilities.

Around the world, war and acts of terrorism account for a large fraction of major oil spills. Terrorists appear to be targeting pipelines, where the majority of oil spills occurred in recent years. For example, of the 257 largest oil spills in 1999, more were caused by terrorist bombings in Colombia (51) than the combined number of spills from tankers, barges, and other vessels (36) according to data published in *International Oil Spill Statistics* by Cutter Information Corp. Two war-related oil spills in the Persian Gulf are among the largest ever to occur—the 1983 Nowruz No. 3 well spill during the Iraq-Iran War and the 1991 Sea Island installation spill during the first Gulf War. Each of these was several times larger than the spill caused by the *Exxon Valdez* in 1989.

Threats to foreign oil facilities have increased drastically. In April, terrorists attempting to damage Iraqi infrastructure attacked Arabian Gulf oil terminals in Bahrain. Islamic militants attacked oil complexes and residential compounds in Saudi Arabia in May, killing or capturing several



petroleum industry workers. Pipeline bombings in Iraq in June halted oil exports, as insurgents increased attacks prior to the change in government.

The federal regulatory framework for oil facilities in the United States includes security planning requirements established by the U.S. Coast Guard and U.S. Environmental Protection Agency (EPA). The Coast Guard rule requires owners or operators of marine transportation-related oil facilities to designate security officers, develop Facility Security Plans, and implement security measures specific to the facility's operations.

EPA regulations subject nontransportation-related oil facilities to security requirements that were developed to prevent vandalism, but also can prevent acts of terrorism.

An EPA-regulated facility must plan for discharges of all types, whether caused by accident, natural hazard (e.g., earthquake or lightning), or deliberate acts (e.g., vandalism or terrorism). The requirements address responses to "worst case discharges," which can damage the facility and oil infrastructure, disrupt waterborne commerce, and damage the economy or environment.

The Coast Guard and EPA regulations represent a good start toward securing the nation's oil storage infrastructure. However, these regulations alone are not sufficient. As owners and operators of oil facilities implement these regulations, they also should analyze vulnerability and threat information specific to their facility to further reduce the likelihood and consequences of terrorist incidents and damage to their infrastructure.

Perspectives

The risk to oil facilities in the United States is a very real one. This spring, the Federal Bureau of Investigation sent an advisory to the Texas oil industry and law enforcement officials warning of a terrorist threat to coincide with the November Presidential elections. Other countries also are preparing for such threats. This year, Australia's largest anti-terrorism exercise began with a scenario involving the mock takeover of an offshore oil rig by terrorists. Most homeland security exercises and drills in the United States focus on chemical and biological weapons of mass destruction that cause large-scale casualties. Recently, the U.S. Department of Transportation (DOT) modified its National Preparedness Exercise Program to incorporate terrorist attacks on pipelines. However, pipelines are only one element of the oil infrastructure: terminals for pipelines (distribution centers), refineries, and drilling rigs—also attractive targets for terrorists—are outside the scope of DOT's exercise pro-



gram. It seems appropriate that future exercise programs feature attacks on all key components of the oil infrastructure (e.g., terminals and refineries). This will help address the growing terrorist threats to these facilities by identifying vulnerabilities and protective measures.

For the past 20 years, ICF Consulting has assisted EPA's Oil Program in developing all oil spill prevention and response regulations. We are currently supporting the development of the U.S. Department of Homeland Security's National Infrastructure Protection Plan, which includes 17 sectors and key resources (e.g., energy, including oil pipelines; chemical; banking and finance; transportation; and public health).

For more information about ICF Consulting's homeland security capabilities, please visit www.icfconsulting.com/homelandsecurity.