



RISK BULLETIN

Security Checklist for Chemical Plants and Storage Facilities

Because of the threat of terrorism, businesses that handle hazardous chemicals need to pay additional attention to the security of facility sites, chemical storage areas, and chemical processes. Federal laws may place a legal responsibility on management to establish security programs. This checklist provides an overview of general strategies these businesses can take to help assure secure operations. Management should conduct a risk assessment to evaluate the facility's current security procedures. Factors to be considered in this risk assessment should include the nature of the chemicals stored at the site, the location of the site and its distance from population centers, and the accessibility of the site.



INTRUSION PREVENTION

- Provide physical security measures to the perimeter of the facility through the use of

- fencing, lighting, and passive barriers, such as concrete planters, bollards, and jersey barriers.
- Station guards at perimeter gates or building entrances to control access. To protect against unauthorized entry through normal entrances, implement a program of security clearances, identification badges, as well as vehicular and pedestrian traffic control. Procedures during abnormal conditions must also be considered.
- Augment physical security measures with intrusion detection systems, such as closed circuit television surveillance. Consider the use of explosive and metal detectors.
- Implement a program to control the issuance of keys and locks. Have procedures in place to recover keys from employees who leave and to immediately remove the employee's security codes from systems.

FACILITY DESIGN

- Locate processes with hazardous chemicals in the center of a facility to limit the ability of criminals to cause harm from outside the facility. For example, transportation vehicles containing hazardous chemicals are vulnerable to attack if left near the fence line or unprotected.
- " Provide layers of security to protect equipment. Consider passive barriers to resist vehicle attacks or blast-resistant buildings or structures. Enclose critical valves and pumps

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behind fences or in buildings to make them less subject to tampering or damage.

- Provide alternate or backup capabilities to protect the communications/computer system for computer-controlled processes. Control and monitor entrance into control rooms.
- Install safety controls that will limit the loss of hazardous materials if an accident occurs.
- Provide containment systems (e.g., buildings, dikes, and trenches) for hazardous liquids storage areas.
- Install chemical monitors that automatically notify personnel of off-hour releases.



PROCEDURES AND POLICIES

- Develop written security policies and distribute to all employees. Implement a program of preemployment screening for security personnel.
- Establish emergency management procedures and provide training to workers. Coordinate contingency plans with local emergency management agencies.
- Limit the inventory of hazardous materials to the minimum needed for operation. Consider substituting less hazardous substances when possible to make processes inherently safer. Disconnect storage tanks and delivery vehicles from transfer hoses and distribution systems when not in use.

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