

Modern Building Security

From burglars to terrorism

By Steven M. Baldrige, S.E.

Today's Building Owners and Managers deal with an increasingly complicated set of issues in the day to day management of their facilities. In addition to the physical maintenance of their property, they are also often called on to manage the first response to hazards such as fire, hurricanes, earthquakes, etc. General building security, such as the protection of tenants from theft or assault, is also an ongoing concern.

But the first terrorist bomb attack in the parking structure of the World Trade Center in 1993, the act of domestic terrorism on the Murrah Federal Building in Oklahoma City and September 11 punctuated another concern for commercial building owners, the man made hazards of terrorism.

operations impacted by the heightened security measures of their neighbors.

- ◆ Many building tenants want to know that higher security issues are being considered. They are looking to ensure the safety of their employees, limit losses and minimize business interruption.

- ◆ The insurance industry is evolving to address terrorism concerns as well. Building Owners who are proactive in addressing risks may be able to maintain lower premiums or obtain high-risk insurance.

Introducing heightened security measures into Building Management must however consider a multi-hazard approach. In providing greater security you can not diminish the accessibility required of both normal building operations and emergency fire and medical services. Terrorism is a low probability event with potential catastrophic results. Hazards such as fire, hurricanes and earthquakes on the other hand have a higher probability of occurrence and must continue to be addressed. By taking a multi-hazard approach you will help minimize the cost impacts of increased security while maintaining other important operational and emergency requirements.

Some measures that can be taken to help address security concerns:

- ◆ Establish a "stand-off" distance of parked vehicles from your building. Secure the perimeter with decorative barriers and/or landscaping.

- ◆ Relocate or strengthen unsecured areas and delivery zones to minimize the risk on the remainder of the facility.

In light of current world events, building owners who may have considered their buildings low-risk, are increasingly being required to address these issues by both their tenants and government mandate. Some of the reasons are as follows:

- ◆ Buildings located adjacent to critical infrastructure (i.e. Electric and Telephone Companies) or Federal Buildings can have their

Table 4-1: Damage and Injuries due to Explosion Effects

Distance from Explosion	Most Severe Building Damage Expected	Associated Injuries
Close-in	General Collapse	Fatality due impact and crushing
Moderate	Exterior wall failure, exterior bay floor slab damage	Skull fracture, concussion
Far	Window breakage, falling light fixtures, flying debris	Lacerations from flying glass, abrasions from being thrown against objects or objects striking occupants

- ◆ Consider impact resistant glazing or glazing retrofits. This will also address the potential losses from wind borne debris in hurricanes.

- ◆ Relocate or place air intakes as far above the ground as possible. Where not possible, you may also be able to secure existing intakes with additional screens or filters.

- ◆ Incorporate redundant and separate mechanical and electrical control systems.

- ◆ Provide a "mass evacuation" notification system in your building.

Both commercial and military branches of the Federal Government have created resources to help in the planning and implementation of increased security measures. This guidance can be directly used or modified to fit the needs of private building owners. Some of this information can be accessed on GSA (General Services Administration – www.gsa.gov), FEMA (Federal Emergency Management Agency – www.fema.gov) and TISP (The Infrastructure Security Partnership – www.tisp.org). You can also contact a local engineer or architect familiar with anti-terrorism/force protection design requirements.

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