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Emergency Preparedness

Fire and Explosion Planning Matrix



Homeland Security

Fire and Explosion Planning Matrix

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Introduction

Recent terrorist events in the United States underscore the importance of fire prevention and workplace emergency planning efforts. Fires or explosions created by arson or an explosive device can be the quickest way for a terrorist to affect a targeted business. Consequently, OSHA developed this Fire and Explosion Planning Matrix to provide employers with planning considerations and on-line resources that may help employers reduce their vulnerability to, or the consequences of, a terrorist's explosive device or act of arson. A terrorist's explosive device or act of arson are not workplace fire hazards or ignition sources that OSHA expects an employer to reasonably identify and attempt to control. However, an effective fire prevention plan that includes these fire hazards/ignition sources may increase workplace safety and security, and ensure that employees know how to respond to threats and incidents safely and effectively.

Since terrorism can impact employers and workers, OSHA is committed to strengthening workplace planning and preparedness so that employers and workers may better protect themselves and reduce the likelihood that they may be harmed in the event of a terrorist incident. OSHA continues to work with other Federal response agencies, including the Federal Emergency Management Agency (FEMA), the Environmental Protection Agency (EPA), the U.S. Army Soldier and Biological Chemical Command (SBCCOM), the Centers for Disease Control and Prevention (CDC), and, within CDC, the National Institute for Occupational Safety and Health (NIOSH), to provide accurate, current information in this rapidly developing area of occupational safety and health.

Assessing the Risk of a Terrorist Incident

Within this document, OSHA draws on the FBI definition of *terrorism* and defines *terrorist act/incident* as a premeditated, unlawful act dangerous to human life that is intended to further political or social objectives. The Fire and Explosion Matrix addresses terrorist acts/incidents that involve arson or an explosive device to achieve political or social objectives.

In order to use this fire prevention guidance effectively, an employer must first assess the risk of a terrorist incident in the workplace. The level of risk is a combination of workplace vulnerabilities, recognized threat, and anticipated consequences of the event. This kind of assessment is not a typical safety and health evaluation. However, guidance on conducting such an assessment is becoming more widely available. For many employers, *Best Practices in Workplace Security*, a homeland security guide developed by the South Carolina Department of Labor, Licensing and Regulation (which operates an OSHA-approved [State plan](#)) and an advisory committee of private and public employer representatives, can offer valuable assistance and is available on-line at <http://www.llr.state.sc.us/workplace/workplacesecurity.htm>. In its [Worksite Risk Assessment List](#) [507Kb PDF], an employer will be asked whether the worksite is characterized by any of the following terrorism risk factors:

- uses, handles, stores or transports hazardous materials;
- provides essential services, e.g., sewer treatment, electricity, fuels, telephone, etc.;
- has a high volume of pedestrian traffic;
- has limited means of egress, such as a high rise complex or underground operations;
- has a high volume of incoming materials (e.g., mail, imports/exports, raw materials);
- is considered a high profile site, such as a water dam, military installation, or classified site; or
- is part of the transportation system, such as shipyard, bus line, trucking, airline.

If these risk factors apply to your workplace and cannot be eliminated, your vulnerability to a terrorist incident may be greater than that of other workplaces. To further assess the potential threat and consequences of a terrorist incident at or near your workplace, consult local law enforcement, the local

office of the FBI, the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), and/or your Local Emergency Planning Committee (LEPC) (see EPA's LEPC database online at <http://www.epa.gov/ceppo/lepclist.htm>). Information from these agencies will help you complete your risk assessment and determine which of the three risk zones noted below best characterizes your workplace.

Chemical facilities can use the U.S. Department of Justice Chemical Facility Vulnerability Assessment Methodology, at <http://www.ojp.usdoj.gov/nij/pubs-sum/195171.htm>, to assess workplace vulnerabilities. Although this document also discusses threat and consequence assessment, you still will need input from local law enforcement, local FBI and ATF offices, and/or your local LEPC to complete your evaluation.

Using OSHA's Fire and Explosion Planning Matrix

The Matrix is not a compliance tool for conducting a comprehensive compliance evaluation of a fire prevention plan developed to comply with the [Fire Prevention Plan Standard \(29 CFR 1910.39\)](#). Rather, this document covers the general aspects of fire prevention planning and includes broad questions to help employers review their plan content as it would relate to a terrorist act involving arson or an explosive device. Each broad question is followed by planning considerations and suggested preparedness measures appropriate for workplaces in each of the three risk zones. [On-line resources](#) are included that may offer additional assistance. After you complete the terrorism risk assessment, review the description of each risk zone to see where your workplace fits best, then review the questions and the related planning considerations for that zone.

NOTICE

OSHA offers this guidance to assist employers and workers who are interested in implementing plans and procedures that may reduce the likelihood of a terrorist incident and reduce the effect of a terrorist's explosive device or act of arson, should a terrorist incident occur at a workplace. However, the guidance does not create legal obligations for employers or create rights for third parties. Legal obligations under the OSHAct are created by statute, regulations, and standards.

Fire Prevention Plans (FPP) often work in conjunction with the procedures identified in existing [Emergency Action Plans \(EAP\) \(29 CFR 1910.38\)](#). Therefore, any modification to the FPP can affect your EAP. If you have decided to include arson and explosive device incidents in an existing FPP, you also may want to do so in your EAP.

Note: If you do not have a fire prevention plan and want to determine whether OSHA requires you to have one, please see [Does Your Facility Need a Fire Prevention Plan? \(Attachment A\)](#) If you do not have an emergency plan and want to determine whether OSHA requires you to have one, please see [Does Your Facility Need an Emergency Plan? \(Attachment B\)](#)

There are 26 States and Territories which operate their own occupational safety and health programs under an OSHA-approved State plan. [State Plan States](#) set and enforce state standards which are identical to or "at least as effective as" Federal OSHA standards, including those referenced in this matrix (such as the Fire Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Standards). While this matrix can provide useful guidance to all employers and workers, if you work in a State plan State, you also should contact your State plan agency to determine whether they have any additional or different requirements and to obtain State-specific guidance.

OSHA Terrorist Incident Risk Categories

OSHA shows the zones in the shape of a pyramid to represent how the nation's workplaces appear to be distributed within the zones. Based on information currently available, the vast majority of American workplaces are at low risk for a terrorist incident, i.e., are in the Green Zone. The questions, recommendations, and on-line resources in each risk zone build on the those in the zone below it. For example, the Yellow Zone includes both the information in the Green Zone and additional information for Yellow Zone workplaces.

Green Zone:

Workplaces that are not likely to be a target for a terrorist incident because they are characterized by limited vulnerability, limited threat, **and** limited potential for significant impact (consequence).

Note: If the workplaces around you seem to be in a higher zone, you may wish to review and implement the planning/preparedness considerations in the Yellow Zone.



[Yellow Zone:](#)

Workplaces that may be targets because they are characterized by high vulnerability **or** high threat **or** a potentially significant impact (consequence) **but**, not more than one of these.

Note: If the workplaces around you seem to be in a higher zone, you may wish to review and implement the planning/preparedness considerations in the Red Zone.

[Red Zone:](#)

Workplaces that are most likely to be targets because they are characterized by two or more of the following: high vulnerability, high threat, and potentially catastrophic impact (consequence). Such workplaces may consider assigning some terrorist incident response roles to their own employees.

Note: The color-coded risk levels in this Matrix do not equate to the Threat Levels in the Homeland Security Advisory System developed by the Department of Homeland Security. However, employers that place themselves in the Yellow or Red risk levels may consider implementing sequential preparedness measures consistent with those listed in the [Homeland Security Presidential Directive - 3](#) (describes Threat Levels) for federal agencies.

Limitations of Guidance

Because of the vast number and types of workplaces in the United States, this Matrix provides broad information applicable to most workplaces. If you want to modify your plan to address specific considerations, you can get additional information from the on-line resources identified. For additional information about workplace fire prevention planning, see [OSHA's Safety and Health Topics: Fire Safety](#) web page.

As a nation, our understanding of the risk of terrorism and the devices involved continues to evolve. It is likely that OSHA's recommendations for preparedness, training, and equipment also will evolve. OSHA remains committed to helping employers and workers protect themselves from the risk of terrorism in the workplace and is working closely with other Federal and State agencies to provide employers with current information and guidance.

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