

## **EMERGENCY ACTION PLAN**

All emergency action plans must be in writing and made available to employees for review. The exception to this rule is that if an employer has 10 or fewer employees, the plan may be communicated orally and does not have to be in writing.

**Elements:** The plan must include, at a minimum, the following:

- evacuation plan and procedure
- emergency escape procedures and emergency escape route assignments
- procedures to be followed by employees who remain to perform (or shut down) critical plant operations before the plant is evacuated
- procedures to account for all employees after emergency evacuation has been completed
- rescue and medical duties for those employees who are to perform them
- the preferred means for reporting fires and other emergencies
- names or regular job titles of persons or departments to be contacted for further information or explanation of duties under the plan

The plan should address all potential emergencies that can be expected in the workplace. In addition to the mandatory elements, you may want to include the following in your plan:

- the site of an alternative communications center to be used in the event of a fire or explosion
- a secure on- or offsite location to store originals or duplicates of accounting records, legal documents, employees' emergency contact lists and other essential records

**Employee Alarm Systems:** In order to begin emergency action or to proceed with evacuation, an emergency alarm system must be provided.

- it must be capable of being noticed above ambient noise or light levels by all employees
- it must be distinctive and recognizable as a signal to evacuate the work area or to perform actions as described in the action plan
- the employer must explain the preferred way for employees to report emergencies, such as pull box alarms, P.A. systems or telephones
- emergency phone numbers must be posted near phones or posted conspicuously on employee notice boards
- procedures shall be established for sounding emergency alarms in the workplace

If an employer has fewer than 10 employees in a certain workplace, direct voice communication is an acceptable procedure for meeting this requirement.

**Training:** Before implementing the emergency action plan, the employer must designate and train employees to assist in the safe and orderly evacuation of other employees. General training for your employees should address the following:

- individual roles and responsibilities
- threats, hazards and protective actions
- notification, warning and communications procedures
- means for locating family members in an emergency
- emergency response procedures
- evacuation, shelter and accountability procedures
- location and use of common emergency equipment
- emergency shutdown procedures

The employer must review the plan with each employee at the following times:

- when the plan is initially developed
- for all new employees
- when the employee's responsibilities change under the plan
- when new equipment, materials or processes in the workplace affect evacuation routes
- when the layout or design of the facility is changed
- whenever the procedures are revised or updated

It makes sense to review all emergency plans with employees on an annual basis. Drills should be practiced to ensure the various plans work.

OSHA's publication of "How to Plan for Workplace Emergencies and Evacuations", revised in 2001, is a good resource to use while developing your plan. It can be downloaded at [www.osha.gov/Publications/Osha3088.pdf](http://www.osha.gov/Publications/Osha3088.pdf).

## **WORKPLACE FIRE SAFETY**

Various OSHA standards require employers to provide proper exits, fire fighting equipment, emergency plans and employee training to prevent fire deaths and injuries in the workplace. OSHA has software available, named Fire Safety Advisor, which addresses its general industry standards for fire safety and emergency evacuation. It also addresses OSHA standards for firefighting, fire suppression and fire detection systems and equipment. It can be downloaded or accessed on-line at [www.osha.gov/dts/osta/oshasoft/softfirex.html](http://www.osha.gov/dts/osta/oshasoft/softfirex.html). The following information summarizes most of the various requirements.

### **Building Fire Exits:**

- Each workplace building must have at least two means of escape remote from each other to be used in a fire emergency.
- Fire doors must not be blocked or locked to prevent emergency use when employees are within the buildings.
- Exit routes from buildings must be clear and free of obstructions and properly marked with signs designating exits from the building.

### **Portable Fire Extinguishers:**

- Each workplace building must have proper fire extinguishers for the fire hazards present:
  - Fire extinguishers for Class A, C and D fires (paper, electrical and metal) must be distributed for use so that a travel distance to any extinguisher does not exceed 75 ft.
  - Fire extinguishers for Class B fires (resin, acetone, etc.) must be distributed for use so that a travel distance to any extinguisher does not exceed 50 ft.
- Fire extinguishers must be properly mounted, located and identified in the workplace so that they are readily accessible to employees.
- Fire extinguishers must be approved, fully charged and operable. They must be visually inspected monthly and subjected to an annual maintenance check.
- Employees expected or anticipated to use fire extinguishers must be instructed on the hazards of fighting fire, how to properly operate the available fire extinguishers and what procedures to follow in alerting others of the fire emergency. Fire extinguisher training must be provided annually.
- If the employer clearly indicates in the emergency action plan that all employees are to evacuate the building in case of a fire, fire extinguishers do not need to be distributed in the workplace.

**Fire Prevention Plan:** This must be in writing and made available to employees for review.

The exception to this rule is that if an employer has 10 or fewer employees, the plan may be communicated orally and does not have to be in writing.

- Elements: The plan must include, at a minimum, the following:
  - a list of the major workplace fire hazards and their proper handling and storage procedures; types of fire protection equipment or systems which can control a fire
  - names or job titles of those personnel responsible for maintenance of equipment and systems installed to prevent or control ignitions and fires
  - names or job titles of those personnel responsible for control of fuel source hazards
  - housekeeping procedures
  - maintenance procedures
- Housekeeping: The employer is responsible for ensuring that accumulations of flammable and combustible waste material and residues are controlled so that they would not contribute to a fire emergency.
- Maintenance: Procedures shall be established to ensure regular and proper maintenance of equipment and systems installed on heat producing equipment to prevent accidental combustion of combustible materials.
- Training: The employer must apprise employees of the fire hazards of the materials and processes to which they are exposed. The employer should review applicable parts of the plan with employees upon initial assignment so that they may protect themselves in the event of an emergency. The plan should be reviewed with all employees whenever it is changed.

**Fire Suppression Systems:** *All resin spray application areas must be protected by an automatic sprinkler system that is designed and installed in accordance with the requirements of NFPA 13 for at least Ordinary Hazard, Group 2 occupancies.*

Automatic fire suppression systems require proper maintenance to keep them in serviceable condition. A fire watch of trained employees must be posted if the fire suppression system must be serviced during working hours. Signs must be posted at areas protected by total flooding fire suppression systems which use agents that are serious health hazards, such as carbon dioxide.

***If a training video on fire extinguishers is needed, please call Composites One's Department of Health, Safety & Environment at 800/621-8003.***

## **HAZWOPER EMERGENCY RESPONSE PLAN**

The Hazardous Waste Operations and Emergency Release standard which went into effect during 1991 tends to cause confusion to employers about just who is affected by it. A composites fabricator is covered by this standard if there would be a possibility for an *uncontrolled emergency release calling for an emergency response* at the facility. So it is key to determine whether an emergency response is necessary. OSHA's guidance document explains it in the following way.

In determining what is an emergency response, the following points should be kept in mind:

1. If there is no potential safety or health hazard, there is no emergency. This applies whether the release is cleaned up by personnel within the immediate work area or from outside the work area. Generally, employees will be trained under the hazard communication standard to deal with such incidental releases.
2. If there is a potential safety or health hazard, there may be an emergency and hence an emergency response. This applies whether the release is responded to by employees from outside the work area, by outside groups such as the fire department, or by employees from the immediate work area who have been designated by the employer to respond to emergencies.

### **Situations Generally Resulting in Emergency Responses:**

- The response comes from outside the immediate release area
- The release requires evacuation of employees in the area
- The release poses, or has the potential to pose, conditions that are immediately dangerous to life and health
- The release poses a serious threat of fire or explosion (has the potential to exceed the lower flammable limit)
- The release requires immediate attention because of imminent danger
- The release may cause high levels of exposure to toxic substances
- There is uncertainty that the employee in the work area can handle the severity of the hazard with the PPE and equipment that has been provided and the exposure limit could easily be exceeded
- The situation is unclear, or data is lacking on important factors

If the workplace could feasibly have an uncontrolled release, an emergency response plan and training then must be provided. The plan must be in writing and available for inspection and copying by OSHA and employees. The only exemption is if the employers plan on evacuating their employees from the danger area when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency. *If this exemption is chosen, the emergency action plan must clearly address the total evacuation plan.* Please note, however, that if your facility is at least a "Small Quantity Generator" of hazardous waste under EPA regulations, it is already required by employers to have employees engage in emergency response. Therefore, this exemption would not apply,

and coverage under this OSHA standard is required.

**Elements of the Emergency Response Plan:** The following must be addressed (if the facility is covered) to the extent that they are not addressed elsewhere.

- pre-emergency planning and coordination with outside parties
- personnel roles, lines of authority, training and communication
- emergency recognition and prevention
- safe distances and places of refuge
- site security and control
- evacuation routes and procedures
- decontamination
- emergency medical treatment and first aid
- emergency alerting and response procedures
- critiques of response and follow-up
- PPE and emergency equipment

Emergency response organizations may use the local emergency response plan or the state emergency response plan, or both, as part of their emergency response plan to avoid duplication. Items of the emergency response plan which are being properly addressed under SARA TITLE III plans may be substituted into the emergency plan or otherwise kept together for the employer's and employee's use.

**Training:** Different levels of initial training are required depending on the duties and function of each responder plus demonstrated competence or annual refresher training sufficient to maintain competence.

- First responders, awareness level: Individuals likely to witness or discover a hazardous substance release and initiate the emergency response must demonstrate competency in such areas as recognizing the presence of hazardous materials in an emergency, the risks involved and the role they should perform.
- First responders, operations level: Individuals who respond for the purpose of protecting property, persons or the nearby environment without actually trying to stop the release must have eight hours of training plus awareness level competency.
- Hazardous materials technicians: Individuals who respond to stop the release must have 24 hours of training equal to the operations level and demonstrate competence in several specific areas.
- Hazardous materials specialists: Those who support the technicians but require a more specific knowledge of the substances to be contained must have 24 hours of training equal to the technical level and demonstrate competence in certain areas.
- On-scene incident commanders: They assume control of the incident scene beyond the awareness level, must have 24 hours of training equal to the operations level and demonstrate competence in specific areas.

OSHA provides technical links to more information on Hazardous Waste and Emergency Response at [www.osha.gov/SLTC/hazardouswaste/index.html](http://www.osha.gov/SLTC/hazardouswaste/index.html) and [www.osha.gov/SLTC/emergencyresponse/index.html](http://www.osha.gov/SLTC/emergencyresponse/index.html).