

Manual Section 7	Issue Date 11/25/09	Revision Date 06/15/21	Policy Number LLCP-070
	Fire Protection & Prevention		

Purpose

OSHA’s Fire Prevention Plan (FPP) regulation, found in 29 CFR 1926.24 and Subpart F, does not specifically require a written plan, but does require specific program elements. This plan addresses fire emergencies reasonably anticipated to occur through all phases of the construction, repair, alteration, or demolition at Company construction sites.

Scope

All LLC Companies including, Blanchard Industrial, LLC, GIS Engineering, LLC, Grand Isle Shipyard, Inc., and GWIS, Mack Steel, NuWave, Sun Industries; hereafter identified as “Company”.

This FPP is in place at our Company to control and reduce the possibility of fire and to specify the type of equipment to use in case of fire. This plan addresses the following issues:

- Major workplace fire hazards and their proper handling and storage procedures.
- Potential ignition sources for fires and their control procedures.
- The type of fire protection equipment or systems that can control a fire involving them.
- Regular job titles of personnel responsible for maintenance of equipment and systems installed to prevent or control ignition of fires and for control of fuel source hazards.

Under this plan, employees will be informed of the plan’s purpose, preferred means of reporting fires and other emergencies, types of evacuations to be used in various emergency situations, and the alarm system. The plan is closely tied to the Company’s emergency action plan where procedures are described for emergency escape procedures and route assignments, procedures to account for all employees after emergency evacuation has been completed, and rescue and medical duties for those employees who perform them. Please see the emergency action plan for this information.

The Corporate HSE Director is the program coordinator, acting as the representative of the Company, who has overall responsibility for the plan. The written program is kept in the HSE Department. The HSE Director will review and update the plan as necessary or at least annually. Copies of this plan may be obtained from the Corporate HSE department in the Main Office or on the Safety Portal.

The FPP communicates to employees, policies and procedures to follow when fires erupt. This written plan is available, upon request, to employees, their designated representatives, and any OSHA officials who ask to see it.

If after reading this program it is felt that improvements can be made, please contact the Corporate HSE Director. All suggestions are encouraged. We strive for a clear understanding, safe behavior, and involvement in the program from every level of the company.

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Corporate HSE Director Responsibilities

The Corporate HSE Director is responsible for the following activities:

- Develop a written fire prevention plan for regular and after-hours work conditions.
- Immediately notify the nearest fire or police departments and the building owner/superintendent in the event of a fire affecting the office.
- Integrate the fire prevention plan with the existing general emergency plan covering the building occupied.
- Distribute procedures for reporting a fire, the location of fire exits, and evacuation routes to each employee.
- Conduct drills to acquaint the employees with fire procedures and to judge their effectiveness.
- Satisfy all local fire codes and regulations as specified.
- Train designated employees in the use of fire extinguishers and the application of medical first-aid techniques.
- Keep key management personal home telephone numbers in a safe place in the office for immediate use in the event of a fire. Distribute a copy of the list to key persons to be retained in their homes for use in communicating a fire occurring during non-work hours.
- Decide to remain in or evacuate the workplace in the event of a fire.
- If evacuation is deemed necessary, the Director or designee ensures that:
 - All employees are notified and a head count is taken to confirm total evacuation of all employees.
 - When practical, equipment is placed and locked in storage rooms or desks for protection.
 - The building owner/superintendent is contacted, informed of the action taken, and asked to assist in coordinating security protection.
 - In locations where the building owner/superintendent is not available, security measures to protect employee records and property are arranged as necessary.

In addition, the Director is responsible for duties unique to this facility.

Workplace Fire Hazards

It is the intent of this Company to assure that hazardous accumulations of combustible waste materials are controlled so that a fast developing fire, rapid spread of toxic smoke, or an explosion will not occur. Employees are to be made aware of the hazardous properties of materials in their workplaces and the degree of hazard each poses.

Combustible and Flammable Material

Fire prevention measures must be developed for all fire hazards found. Once employees are made aware of the fire hazards in their work areas, they must be trained in the fire prevention measures developed and use them in the course of their work. For example, oil soaked rags must be treated differently than general paper trash in office areas. In addition, large accumulations of waste paper or corrugated boxes, etc., can pose a significant fire hazard.

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Accumulations of materials that can cause large fires or generate dense smoke that are easily ignited or may start from spontaneous combustion are the types of materials with which this fire prevention plan is concerned. Matches, welder's sparks, cigarettes and similar low-level energy ignition sources may easily ignite such combustible materials. It is the intent of this company to prevent such accumulation of materials.

Certain equipment is often installed in the workplace to control heat sources or to detect fuel leaks. An example is a temperature limit switch often found on deep-fat food fryers used in restaurants. There may be similar switches for high temperature dip tanks, or flame failure and flashback arrester devices on furnaces and similar heat producing equipment. If these devices are not properly maintained or if they become inoperative, a definite fire hazard exists. Again, employees and supervisors should be aware of the specific type of control devices on equipment involved with combustible materials in the workplace and should make sure, through periodic inspection or testing, that these controls are operable. Manufacturer's recommendations should be followed to assure proper maintenance procedures.

Fuel is used throughout the plant as an energy source for various systems or equipment. This fuel can be a significant fire hazard and must be monitored and controlled.

Fuels are stored outside in an approved storage tanks.

Potential Ignition Sources

Flammable or combustible materials may not ignite on their own without an external source of ignition.

The following procedures are used to control known ignition sources at this company: Gas: All spark or ignition sources are kept away from gas.

Fire Protection Equipment










Fire protection equipment, at each shop location in use at this company includes the following extinguishers to protect from the various types of fire hazards: A or ABC, water or dry chemicals

Types of Fire Extinguishers

- **Multipurpose Dry Chemical for Class A, B, and C Fires.** The monoammonium phosphate agent is inexpensive and electrically nonconductive but leaves a powdery residue that can damage equipment. This type of extinguishing agent is not good for hidden fires.
- **Water for Class A Fires.** This type of extinguishing agent is not appropriate for areas with Class C hazard potential because water will conduct electricity.
- **CO2 for Class B and C Fires.** Carbon dioxide is a colorless, odorless gas that leaves no messy residue to damage equipment. This type of extinguishing agent is good for reaching hidden fires, however, the heavy vapor settles out, limiting the total discharge range to approximately 8 ft. (2.4 m). Carbon dioxide may also cause thermal (cold) and static (shock) damage.
- **Dry Chemical for Class B and C Fires.** The potassium bicarbonate and sodium bicarbonate extinguishing agents are extremely effective against Class B fires and are electrically nonconductive. They are considered non-toxic and cleanup may be accomplished with a vacuum cleaner or broom and dustpan.

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- **Dry Chemical for Class D Fires.** Extinguishing agents include sodium carbonate, salt, graphite, bicarbonate- and sodium chloride-based chemicals. These agents are not equally effective on all combustible metal fires. Be sure the extinguishing agent chosen will be effective on the combustible metal present, as using the wrong extinguishing agent can increase or spread the fire.
- **Wet Chemical for Class K Fires.** Potassium acetate is the agent specifically listed and labeled for use on Class K fires. Portable Class K fire extinguishers are intended to supplement automatic fire extinguishing systems.

	Class A – Trash, Wood, Paper Class A fires involve ordinary combustible materials—paper, wood, fabrics, rubber, and many plastics. Quenching by water or insulating by a multipurpose (ABC) dry chemical agent is effective.	
	Class B - Liquids, Grease Class B fires occur in flammable liquids—gasoline, oils, greases, tars, paints, lacquers, and flammable gases. Dry chemicals and carbon dioxide agents extinguish these fires.	
	Class C - Electrical Equipment Class C fires take place in live electrical equipment—motors, generators, switches, and appliances. Nonconducting extinguishing agents such as dry chemicals or carbon dioxide are required to extinguish them. Fire extinguishers for the protection of delicate electronic equipment shall be selected from types specifically listed and labeled for Class C.	
	Class D - Combustible Metals Class D fires occur in combustible metals such as magnesium, titanium, zirconium, sodium, lithium, and potassium. Sodium carbonate, graphite, bicarbonate, sodium chloride, and salt-based chemicals extinguish these fires. There is no picture designator for Class D extinguishers.	
	Class K - Cooking Oil Fires. Class K fires occur in cooking appliances that use combustible cooking media (vegetable or animal oils and fats).	

Fire Prevention / Extinguisher Plan

- A fire control log shall be maintained of the inspection. Required is the listing of the employee chosen to inspect the fire control equipment and areas and the deficiencies noted.
- How the deficiency was corrected and if repaired, replaced or replenished, shall be noted in the fire control log.
- A review of findings of the fire control equipment shall be presented at the weekly pipeline crew safety meeting to certify that the inspection was made, deficiencies noted and properly corrected.
- The station bill shall list pieces of equipment or areas of inspection. There shall at no time, be allowed to exist, a deficiency of fire control equipment.
- Keep hallways, corridors, and exit areas clear of items that impede egress in an emergency (i.e., chairs, tables, boxes, equipment, etc).

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- Properly store combustible items. Do not accumulate unnecessary cardboard boxes, chemicals, and paper products.
- When stacking or storing items on shelves, the top of the items must be a minimum of 18" below sprinkler head deflectors.
- Purchase equipment that is approved by a testing organization, such as Underwriters Laboratories (UL).
- Keep electrical equipment, cords, and plugs in good condition. Arrange for an authorized factory representative or electrician to replace electrical cords or plugs that are in poor condition (i.e., frayed, cracked insulation, loose prongs, etc.).
- Do not overload electrical outlets.
- Report loose electrical wall receptacles, missing outlet faceplates, and exposed wires your supervisor immediately.
- Disconnect electrical equipment that could possibly overheat when unattended.
- When using a space heater, allow a minimum of three (3) feet between the heater and combustible materials.
- Immediately report a suspected natural gas leak.
- Complete a Hot Work Permit when conducting hot work outside of a welding shop. See SOP, 041 Purging, Cold Cutting and Welding on Process Pipe for more information.

Know how to safely exit the work area if a fire should occur. Have at least two (2) exit routes in mind and walk through them to assure your safe response. Always observe a fire alarm. Convene in the predetermined muster location.

Inspection of Fire Extinguishers

Inspection procedures are as follows:

- Each portable CO₂ extinguisher shall be inspected for an unbroken wire safety seal though the lock pin is not broken. If the seal is broken, extinguisher must be weighed. If weight is within 10% of full weight stamped on the side of the valve, a new wire seal may be properly installed in such a manner that if lock pin is removed, seal will break. If weight is not within limits, extinguisher must be sent to a fire extinguisher company for refilling and certification.
- Each dry chemical (cartridge type) extinguisher shall be inspected for a broken seal through the lock pin. If the seal is broken, check powder level in extinguisher and CO₂ cartridge for detonation. If spent, refill with powder, replace CO₂ cartridge then replace safety seal. Spent CO₂ cartridges can be sent to the fire extinguisher company for refill.
- Each dry chemical (gauge type) extinguisher shall be inspected for a broken seal through the lock pin. If the seal is broken, check gauge on handle. If gauge reads recharge, send fire extinguisher in be recharged. Replace fire extinguisher with an appropriate extinguisher that is charged.
- Monthly Inspections - The employer shall assure that portable fire extinguishers are subjected to monthly vision checks and an annual maintenance check. The employer shall record the annual maintenance date.

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Housekeeping Procedures

The Company controls accumulations of flammable and combustible waste materials and residues so that they do not contribute to a fire. The following potential hazards have been identified:

- Used oil, dirty rags & cleaning solvents

The following procedures have been developed to eliminate or minimize the risk of fire due to improperly stored or disposed of materials:

- Keeping floor free of oil,
- Storing oily rags in specially designed containers with regular disposal, and
- Storing all flammables in fire cabinets when not in use. Refrain from open flames (i.e. candles, sterno burner, incense burner, etc.) unless they are an integral part of the work activity (i.e., torches in welding shops, etc.). Do not leave open flames unattended. Do not store or use ordinary combustibles (i.e., papers, napkins, cloths, etc.) or flammable/combustible solvents (e.g., aerosols, paints, etc.) in the vicinity of open flames or hot surfaces.

Training

Fire Prevention Plan

At the time of a fire, employees should know what type of evacuation is necessary and what their roles is in carrying out the plan. In cases where the fire is large, total and immediate evacuation of all employees is necessary. In smaller fires, a partial evacuation of nonessential employees, with a delayed evacuation of others, may be necessary for continued plant operation. The Company must be sure that employees know what is expected of them during a fire to assure their safety.

Training conducted on initial assignment and annually thereafter, includes:

- What to do if employee discovers a fire.
- Demonstration of alarm, if more than one type exists.
- How to recognize fire exits.
- Evacuation routes.
- Assisting employees with disabilities.
- Measures to contain fire (e.g., closing office doors, windows, etc. in immediate vicinity).
- Head count procedures (see EAP for details).
- Return to building after the “all-clear” signal.
- Location of fire extinguishers and exit fire route

If the Instructor has reason to believe an employee does not have the understanding required, the employee must be retrained.

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The Instructor certifies in writing that the employee has received and understands the fire prevention plan training.

Because failure to comply with company policy concerning fire prevention can result in OSHA citations and fines as well as employee injury, an employee who does not comply with this program will be disciplined.

Company buildings house several places of employment, so a method to coordinate FPPs for all employees in the building, to avoid confusion and conflicts during a fire, has been devised. The Company has informed its employees of their duties and responsibilities under the plan.

Fire Prevention Equipment

ITEC provides training for each employee who is required to use fire prevention equipment. Employees shall not use fire prevention equipment without appropriate training. Training, before an individual is assigned responsibility to fight a fire, includes:

- Types of fires;
- Types of fire prevention equipment;
- Location of fire prevention equipment;
- How to use fire prevention equipment;
- Limitations of fire prevention equipment;
- Proper care and maintenance of assigned fire prevention equipment; and
- Proper operation of all equipment.

Employees must demonstrate an understanding of the training and the ability to use the equipment properly when involved in an incipient stage fire before they are allowed to perform work requiring the use of the equipment.

If the Instructor has reason to believe an employee does not have the understanding or skill required, the employee must be retrained.

The Instructor certifies in writing that the employee has received and understands the fire prevention equipment training.