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**SECTION I
PURPOSE
OF THE PLAN**

Introduction

Fire Protection is important to Hilscher-Clarke to minimize loss of life and property. The cost of fire protection is small compared to potential costs of incalculable human suffering and lost property.

This safety policy and procedure provides guidelines and provisions for implementing fire safety in our workplace and on our worksites. It includes provisions for training, portable fire extinguisher classification and use, and guidelines for the fire extinguisher inspection processes.

This document also details the areas of responsibility for Management, Supervisory Personnel, and Employees of Hilscher-Clarke.

Because every person on a Hilscher-Clarke site, and at Hilscher-Clarke's permanent facility, is expected to help minimize the potential for fires and to maintain the equipment necessary to control fires, every person employed by Hilscher-Clarke (regardless of status) will be affected by these safety policies and procedures.

These safety policies and procedures have been established in accordance with Occupational Safety and Health Administration (OSHA) standards for General Industry 29 Code of Federal Regulations (CFR) 1910.157 and OSHA standards for Construction Industry 29 CFR 1926.150.

It is the responsibility of each member of management, every supervisor and employee to ensure implementation of Hilscher-Clarke's safety policy and procedure on Fire Protection. It is also the responsibility of each Hilscher-Clarke employee to report immediately any potential fire hazard to his or her immediate Supervisor and to become familiar with the use and location of fire-fighting equipment. Specific responsibilities are found in Section II (General Program Management).

SECTION II
GENERAL PROGRAM
MANAGEMENT

Responsibilities

- **The Safety Director** is responsible for:
 - The control of this program and ensuring that all training meets the requirements of this program.
 - The Safety Director will maintain and update the written Fire Protection Plan at least annually, and whenever necessary to include new or modified tasks, procedures and/or equipment.
 - The purchase of portable fire extinguishers for our permanent facility as well as the respective construction/work sites and/or workplaces.
 - Ensuring service contracts are in place for the annual inspection and servicing of the portable fire extinguishers.
 - Ensuring that monthly and annual testing and maintenance is performed on the portable fire extinguishers.
 - *NOTE: Records of inspections and testing shall be maintained and retained by the Site Foreman of each individual construction/work site.*
 - Obtaining and coordinating, with supervisory personnel, the required training for all Affected Employees.
 - Training and Documentation of Training.
 - Informing each subcontractor of the need for portable fire extinguishers and the contents and requirements of Hilscher-Clarke's Fire Protection Plan.
 - Auditing the Fire Protection Program for compliance with this safety policy and procedure.
 - Making the written Fire Protection Plan available to employees, OSHA & NIOSH representatives
 - The Safety Director may delegate the responsibility of various aspects of the Fire Protection Plan to a Qualified Organization (as approved by the Vice President). However, the Safety Director's ultimate responsibility for his/her aspects of the program cannot be delegated.

- **Supervisory Personnel** are responsible for:
 - Identifying the employees affected by this safety policy and procedure.
 - Ensuring that affected employees are trained in the use and function of portable fire extinguishers.
 - Documentation of training.
 - An adequate number of portable fire extinguishers for each work area.
 - Ensuring that portable fire extinguishers are recharged after each use.
 - Ensuring that damaged or defective fire extinguishers are removed from service and replaced.
 - Supervisors may have a designated employee trained to assume some of their responsibilities for fire extinguisher selection, distribution, inspection, maintenance, and testing.
 - With the approval of the Safety Director, the Supervisor may delegate the responsibility of various aspects of the Fire Protection Plan to a Qualified Organization (as approved by the Safety Director). However, the Supervisor's ultimate responsibility for his/her aspects of the program cannot be delegated.

Responsibilities (cont.)

- All **Employees** are responsible for:
 - Keeping their work areas orderly and free of potential sources of ignition.
 - Reporting fire hazards to their Site Foreman and/or Supervisor.
 - **Actual fires will be reported immediately to the local fire department before any attempts are made to extinguish the fire. Employees will not attempt to extinguish fires beyond the incipient stage.**

- Personnel employed by Hilscher-Clarke, all contractors and subcontractors working at any and all construction/work sites operated by Hilscher-Clarke are required to comply with the procedures and work practices outlined in this Fire Protection Plan. The Safety Director is responsible for ensuring that said individuals/organizations, operating under the supervision of the Supervisor are informed of and adhere to Hilscher-Clarke's Fire Protection Plan.

It is unsafe for employees who have not been properly trained to use a fire extinguisher to control a fire. Personnel who have not been trained in the use of fire extinguishers must not attempt to use them.



Actual fires will be reported immediately to the local fire department before any attempts are made to extinguish the fire.

Employees will not attempt to extinguish fires beyond the incipient stage.

**SECTION III
TRAINING
REQUIREMENTS**

Training

It is the responsibility of the Vice President to work with the Safety Director to ensure that all employees have received the training necessary to safely perform his or her duties. This training will be given via classroom and/or on-the-job instruction and is to be documented.

Employee Fire Protection training will include, but not be limited to:

- Notification of the Fire Department immediately upon learning of a fire;
- Classification, Ratings, and Performance of Fire Extinguishers (*See Appendix A*);
- Classification of Hazards;
- Location of Fire Extinguishers;
- Proper operation of the fire extinguisher before attacking the fire;

Additionally, Supervisory Personnel and Designated Employees will be trained in:

- Selection and Distribution of Extinguishers;
- Inspection, Maintenance, and Recharging of Extinguishers.

Employees will be trained upon initial employment and annually thereafter.

Outside Personnel (sub-contractors, vendors, etc.) – Will be trained as a Hilscher-Clarke Affected Employee or Designated Employee (level of training and qualification to be determined by the Safety Director and/or Supervisory Personnel) as deemed appropriate to the individual situation(s). A Hilscher-Clarke Authorized/Designated Employee (as outlined in this plan) may be assigned to oversee all activities of Outside Personnel to ensure compliance with the scope and applicability of this plan.

Hilscher-Clarke, reserves the right to render final judgement on any and all outside personnel as to their status, and as a result any additional required training and/or retraining, before assigning status on an individual as an “Authorized/Designated Employee” with respect to the scope and requirements of this plan. An individual will not be allowed to commence with any activity, on the worksite, until his or her status has been established to the satisfaction of the Safety Director and/or Site Supervisor.

Retraining – may be required for an employee to maintain their “Authorized/Designated” status. Retraining reauthorization may be required when:

- An Authorized/Qualified employee’s job changes or he or she is reassigned;
- New equipment is to be used;
- A Supervisor has reason to believe that an employee has inadequate knowledge of Fire Extinguisher classification, usage, maintenance;
- An accident/incident investigation shows a deficiency in the Authorized/Designated employee’s ability to perform their duties in accordance with the procedures outlined in this plan.

SECTION IV
FIRE PROTECTION

1.0 Portable Fire Extinguishers

1.1 Portable Fire Extinguishers

Fire extinguishers are manually operated, portable devices that will discharge an extinguishing agent when properly activated. They are designed as a method of controlling a fire during the time between discovery and arrival of the Fire Department.

1.1.1 Hilscher-Clarke shall provide portable fire extinguishers that are:

- Consistent with the hazard.
- Properly mounted and located.
- Inspected, maintained, and tested.

1.2 Portable fire extinguishers will be selected and distributed based on the classes of anticipated fires, and the size and degree of hazard. Most fires in Hilscher-Clarke's operations will include materials found in Classes A, B, and C. Thus, the most common type of extinguisher Hilscher-Clarke will provide will be designed to effectively suppress these particular conditions. However, fire extinguishers for Class D fires will be provided when hazards associated with Class D fires exist.

- Appendix A lists the different classes of fire extinguishers and their extinguishing agents, limitations, etc.

1.3 Portable fire extinguishers will be mounted conspicuously, located and identified so they are readily accessible. Extinguisher locations will be carefully selected to ensure extinguishers are adequately spaced and are not in danger of being damaged by vehicles, weather, or storage materials.

1.3.1 Employees will be informed of the location of fire extinguishers. Extinguishers will be visible from a distance of at least 3 feet. Wall markings for fire extinguisher locations (see example below) will be visible from a distance of at least 25 feet.



1.3.2 Fire Extinguishers shall be located along normal paths of travel, including exits from an area. All paths to fire extinguishers must remain clear to provide easy access.

2.0 Inspection, Maintenance, & Recharging of Extinguishers

- 2.1** Portable fire extinguishers shall be visually inspected monthly by a Qualified Employee. The inspection is a quick visual check that visually determines whether the fire extinguisher is properly placed and will operate. Its purpose is to give reasonable assurance that the extinguisher is fully charged and will function effectively if needed. In order to be effective, the following shall be checked at a minimum:
- **Charge** – Examine the pressure gauge to determine if the extinguisher is fully charged;
 - **Service** – Examine extinguisher pin for any apparent damage and check for broken seal;
 - **Tagged/Marked** – Tag should indicate inspection within past month;
 - **Blocked** – Assure that extinguisher is accessible for use and unblocked by furniture or debris (3 foot minimum clearance);
 - **Mounted** – The top of the fire extinguisher should be no more than five feet from the floor.
- 2.2** Portable fire extinguishers are to be recharged after use or pressure leakage. Fire extinguishers will be equipped with an inspection tag, and the inspector must initial and date the tag each month to document the inspection. Tags will be replaced when tags are lost or removed.
- 2.3** Any extinguisher that shows excessive wear, damage or unserviceable condition will be removed from service and replaced by an operable extinguisher.
- 2.4** Fire extinguisher maintenance will be performed at least annually by an approved contractor. This annual inspection is intended to give maximum assurance that extinguishers will operate effectively and safely. Annual maintenance and inspection records will be maintained from one annual inspection to the next (at which time the old inspection record is replaced by the new inspection record).
- 2.5** During any period when an extinguisher is removed from service for testing, another extinguisher must replace the extinguisher out for testing.
- 2.6** Annual inspection records will be maintained for review by regulatory agencies and for internal audit purposes.
- 2.7** Portable fire extinguisher hydrostatic testing schedule is as follows:

Types of Extinguishers	Test Intervals (Years)
Soda acid (stainless steel shell)	5
Cartridge operated water and/or antifreeze	5
Stored pressure water and/or antifreeze	5
Wetting agent	5
Foam (stainless steel shell)	5
Loaded stream	5
Dry chemical with stainless steel	5
Carbon Dioxide	5
Dry chemical, stored pressure, with mild steel, brazed brass or aluminum shells	12

3.0 Emergency Reporting

- 3.1** For emergency reporting purposes, at least one readily accessible telephone shall be located at Hilscher-Clarke construction/work sites. This telephone shall be in an area that is not subject to being locked (during normal operating hours).
- 3.2** When reporting a fire the emergency dispatcher may request only brief information when you call. He/She will put you on hold to dispatch the Fire Department, than ask for more detailed information.
- 3.3** In an emergency:
- Call 911 unless otherwise instructed, alternate numbers will be posted by the phone.
 - Briefly state what happened and where it happened.
 - Indicate if anyone was hurt and how badly.
 - Give your name and the phone number (or extension) you are calling from; do not hang up unless the dispatcher tells you to.
 - Wait in the area until the Fire Department arrives and to provide information to the Incident Commander.
 - In large facilities, have someone meet the Fire Department personnel at the entrance to guide them to the scene.

The emergency dispatcher may need the following additional information for specific types of emergencies:

- Fires:
 - What is burning?
 - Is the fire small or large?
- Emergency Medical Assistance:
 - Is the person conscious or unconscious?
 - How many people are injured?
- Hazardous Spills:
 - The name of the material spilled, including the correct spelling if known.
 - Is it a liquid, solid or gas?
 - Has anyone been exposed to the material?
 - Has the flow been stopped?
- Also report any actions that may have or are being taken (i.e., attempts to extinguish the fire, whether the area has been evacuated, or whether CPR has been started). This information will help emergency response personnel anticipate actions that may be required upon arrival.

4.0 Using A Fire Extinguisher

- 4.1** It is unsafe for personnel who have not been trained in the proper use of a fire extinguisher to attempt to use a fire extinguisher to control a fire. Personnel who have not been trained in the use of fire extinguishers must not attempt to use them.
- 4.2 In case of a fire:**
- ❑ Assist any person in immediate danger to safety, if it can be accomplished without risk to yourself. If possible warn co-workers to evacuate the building and/or area.
 - ❑ If there is an alarm system, activate it. If not notify the fire department by dialing the posted emergency response number;
 - ❑ Only after having done these two steps, if the fire is small attempt to use an extinguisher to put it out;
- 4.3 Before deciding to fight the fire, keep these rules in mind:**
- ❑ If you don't know what is burning, you don't know what type of extinguisher to use. Even if you have an ABC extinguisher, there may be something in the fire which is going to explode or produce highly toxic smoke. Chances are, you will know what's burning, or at least have a pretty good idea, but if you don't, let the fire department handle it;
 - ❑ Always position yourself with an exit or means of escape at your back before attempting to use an extinguisher to put out a fire. In case the extinguisher malfunctions, or something unexpected happens, you need to be able to get out quickly, and you don't want to become trapped. Just remember always keep an exit at your back.
 - ❑ The fire is spreading rapidly beyond the spot where it started. The time to use an extinguisher is in the incipient, or beginning stages of a fire. If the fire begins to spread quickly, evacuate the area. If in a building, close doors and windows behind you as you leave;
- 4.4 Do Not Fight The Fire If:**
- ❑ You do not have adequate or appropriate equipment. If you don't have the correct type of large enough extinguisher, it is best not to try to fight the fire;
 - ❑ You might inhale toxic smoke. If the fire is producing large amounts of smoke that you would have to breathe in order to fight it, it is best not to try. Any sort of combustion will produce some amount of carbon monoxide, but when synthetic materials burn, they can produce highly toxic gases such as hydrogen cyanide, acrolein, and ammonia in addition to carbon monoxide. These gases can be fatal in very small amounts.
 - ❑ Your instincts tell you not to. If you are uncomfortable with the situation for any reason, just let the fire department do their job.

5.0 Construction Areas

- 5.1** Construction areas shall be maintained in a fire-safe condition. This includes:
- ❑ Maintaining egress paths and ensuring that the construction site is accessible to the Fire Department;
 - ❑ Consulting the local Fire Department regarding specific access requirements for construction sites.
 - ❑ Accumulations of combustible waste material, dust, and debris shall be removed from structures and their immediate vicinity at the end of each work shift or more frequently if necessary for safe operations.

Appendix

Fire Protection & Prevention

29 CFR 1926 Subpart F (Construction)

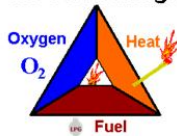


The primary goal of fire safety is to protect human life. Property protection is our secondary goal. By preventing fires and limiting damage we can assure that work operations continue.

A fire must have 3 things to ignite and maintain combustion:

1. Fuel
2. Heat
3. Oxygen

The Fire Triangle



The basic strategy of fire protection is to **control or isolate sources of fuel and heat** in order to **prevent combustion**. If all 3 are not present in sufficient quantities a fire will not ignite or a fire will not be able to sustain combustion.

Good Housekeeping

Established housekeeping guidelines are:

- Work areas, aisles, walkways, stairways, and equipment should be kept clear of loose materials, trash, scraps, etc.
- Never block aisles, fire exits, emergency equipment (i.e., fire extinguishers), or alarm pull stations with equipment or materials.
- Avoid build up of combustible trash and waste such as paper, wood, cardboard, etc.
- Keep use and storage of flammables and combustibles to a minimum.
- Clean up all spills such as grease, oil, or water immediately. A delay could result in accidents.

Flammable & Combustible Liquids

Flammable and combustible liquids are potential fuel sources for fires and are present on almost every worksite. It is actually the vapor created by flammable and combustible liquids that ignites and burns. Therefore it is important to understand what materials at your worksite are flammable and combustible so that you may properly store and isolate them from ignition sources.

- Flammable liquids in excess of 25 gallons shall be stored in an acceptable/approved "Flammables" cabinet.
- Flammable liquids are considered flammable because their flashpoints are < 100°F. This means that flammable liquids burn easily at normal working temperatures.

- Combustible liquids have a flashpoint at or above 100°F. These liquids are less hazardous than flammable liquids but still pose a risk.

- The volatility of flammable and combustible liquids requires special storage and handling requirements.



- Only approved containers and portable tanks should be used for the storage and handling of flammable/combustible liquids.

Fire Extinguishers

Fires are classified according to the type of fuel they burn. Using the wrong type of fire extinguisher on the wrong class of fire you may make matters worse. Most fire extinguishers will have a pictograph label telling you which types of fire the extinguisher is designed to fight. Our organization primarily utilizes dry chemical Class ABC fire extinguishers.

Fuel Classifications	
Class A	Wood, paper, cloth, trash, plastics—solids
Class B	Flammable liquids—gasoline, oil, grease, acetone. Includes flammable
Class C	Electrical—energized electrical equipment.
Class D	Metals—potassium, sodium, aluminum, magnesium. Requires Metal-X, foam,

Extinguisher Placement (Travel Distance)	
Class A	100 Feet
Class B	25 to 75 feet
Class C	50 to 75 feet (based on appropriate A or B hazard class)
Class D	75 feet

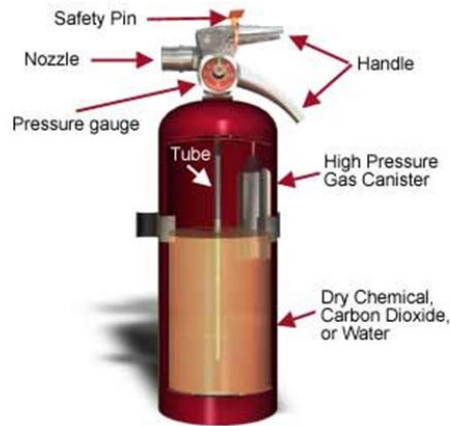
Fight the Fire Only if:

- It is small. (*Waste basket size or smaller*)
- It is contained to one area.
- You know how to use the fire fighting equipment.
- The extinguisher is capable of containing the fire.
- You can extinguish the fire or remove the fuel source.
- *Does Not Cut Off Route of Exit.*

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Safety Training

Portable Fire Extinguisher

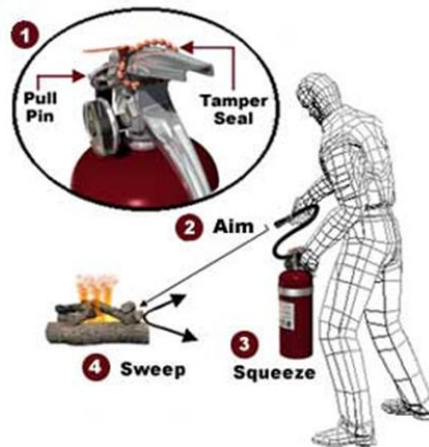


- In stored pressure models the expellent gas and extinguishing agent are stored in a single chamber and discharge is directly controlled by the valve
- These units have the advantage of being easily inspected since most are equipped with a pressure gauge indicating that the unit is ready for use.

Maintenance - The best piece of equipment will not operate if it is not recharged and maintained properly. History has proven that nearly every fire extinguisher failure can be traced back to human negligence. To prevent this Fire Extinguishers shall be:

- Visually inspected monthly
- Maintained annually
- Hydrostatically tested periodically

Using A Fire Extinguisher. The P.A.S.S. word is a method for operating most common fire extinguishers. It is a four step method.



Remember... The average hand portable extinguisher will operate for 10 to 30 seconds. There is no time to learn during an emergency.

Fire Prevention (29 CFR 1926.151)

- Internal combustion engine powered equipment shall be so located that the exhausts are well away from combustible materials. When the exhausts are piped to outside the building under construction, a clearance of at least 6 inches shall be maintained between such piping and combustible materials.
- Smoking shall be prohibited at or in the vicinity of operations which constitute a fire hazard, and shall be conspicuously posted "No Smoking or Open Flame".
- Combustible materials shall be piled with due regard to the stability of piles and in no case higher than 20 feet.
- Fuel cans are to be stored 25 feet from an ignition source (i.e., generator, heater).
- Driveways between and around combustible storage piles shall be at least 15 feet wide and maintained free from accumulation of rubbish, equipment, or other articles or materials. Driveways shall be so spaced that a maximum grid system unit of 50 feet by 150 feet is produced.
- Storage of any materials shall not obstruct or adversely affect means of emergency exit.
- All materials shall be stored, handled and piled with due regard to their fire characteristics. Non-compatible materials, which may create a fire hazard, shall be segregated by a barrier having a fire resistance of at least 1 hour.

Temporary Heating Devices

- Heaters not suitable for use on wood floors shall not be set directly upon them or other combustible materials. When such heaters are used, they shall rest on suitable heat insulating material or at least 1-inch concrete, or equivalent. The insulating material shall extend beyond the heater feet or more in all directions.
- Heaters used in the vicinity of combustible tarpaulins, canvas, or similar coverings shall be located at least 10 feet from the coverings. The coverings shall be securely fastened to prevent ignition or upsetting of the heater due to wind action on the covering or other material.
- Solid fuel salamanders are prohibited in buildings and on scaffolds.
- Flammable liquid-fired heaters shall be equipped with a primary safety control to stop the flow of fuel in the event of flame failure. Barometric or gravity oil feed shall not be considered a primary safety control. Heaters designed for barometric or gravity oil feed shall be used only with the integral tanks.
- Heaters specifically designed and approved for use with separate supply tanks may be directly connected for gravity feed, or an automatic pump, from a supply tank.
- Only heaters approved by a nationally recognized testing lab (i.e., UL) or government agency (MSHA) shall be used in construction or industry.