Fire Prevention

Purpose

The purpose of this plan is to communicate requirements for fire prevention and protection at Fieldwood Energy facilities to minimize personal injury, illness, or property damage resulting from fires and/or the products of combustion.

Fieldwood Energy’s philosophy concerning fire prevention, fire control, and firefighting on Fieldwood Energy facilities is as follows:

Fire Prevention: We seek to prevent fires on our facilities by following good housekeeping practices, proper hot work procedures and adherence to the requirements of this plan.

Fire Control: Fire control is achieved through the use of proper facility design criteria including surface safety systems and equipment layout.

Fire Fighting: We will fight fires at the level of personnel training, available equipment, and that which the particular situation allows. Our primary concern in a fire situation is personnel safety. We seek to extinguish incipient stage fires using handheld or portable chemical fire extinguishers when this is a viable option. The primary use of firefighting equipment beyond extinguishing an incipient level fire is to allow personnel sufficient time to safely escape the platform in a fire situation.

General Guidelines for Responding to Small Fires in the Incipient Stages are as follows:

- Immediately sound alarm/call for help.
- Alert personnel in the area.
- Never try to extinguish a fire without first summoning help.

If it is safe to do so, try to extinguish the fire using portable fire extinguishers. If it is not practical or possible, activate the ESD and then keep personnel out of the area until help arrives or initiate platform abandonment procedures.

If a fire is being fueled by a flammable liquid or gas, shut off the fuel supply before trying to extinguish the fire if safe to do so.
Requirements and Guidelines:

A current Platform Station Bill illustrating the location and type of all fire extinguishers shall be maintained and signed by Person in Charge (PIC) on all manned facilities.

Emergency drills/training will be conducted at least weekly for each crew. The results of these drills will be documented on the Fieldwood Energy Weekly Drill Report Form (see Section F, Chapter 3, Part A) and critiqued.

Good housekeeping practices shall be implemented at all work sites.

Combustible materials, such as oil soaked rags, wastes, and shavings shall be kept in metal containers with lids or in an area far away from any other flammable materials. All containers should be emptied at regular intervals.

Paper and other combustible materials shall not be allowed to accumulate.

Flammable liquids such as gasoline, kerosene, paint, and lacquer thinner, etc., shall not be used for cleaning purposes unless approved methods are employed for their safe use.

All solvents and flammable liquids shall be kept in approved and accurately labeled containers per Hazard Communication program (see Section E, Chapter 3).

When pouring or pumping gasoline or other highly volatile solvents from one container to another, bonding shall be maintained between the receiving and pouring containers at all times to eliminate the possibility of static sparks when refueling. Any motorized equipment must be turned off before it is refueled.

Employees will be allowed to smoke in designated smoking areas only. All platforms must have designated smoking areas properly posted with boundaries marked, and must have receptacles for safely extinguishing and securing cigarette butts (see Section D, Chapter 27).

NO SMOKING signs must be posted at the perimeter of bulk fuel storage areas, re-fueling areas and locations where flammable liquids are transferred or used.

Small quantities of flammable liquids used on the job must be stored in UL-approved and properly labeled safety containers.

Storage of flammable and combustible liquids indoors is allowed using approved storage cabinets, and must comply with OSHA Standard 1910.106 – Flammable and Combustible Liquids, or other applicable regulations.
Portable Fire Extinguishers

Only fire extinguishers marked approved by Factory Mutual (FM), Underwriters Lab (UL), the U.S. Coast Guard (USCG), or other nationally recognized testing laboratory (NRTL) shall be used, and they must be readily and safely accessible at all times.

Placement and types of portable fire extinguishers shall meet the requirements of NFPA 10 (latest edition) - Standard for Portable Fire Extinguishers and API RP 14-G (latest edition) - Recommended Practice for Fire Prevention and Control on Open Type Offshore Production Platforms.

Portable fire extinguishers must be maintained in fully charged and operable condition at all times.

Fire extinguishers must be provided and maintained on all Fieldwood Energy owned or leased mobile equipment.

Fire extinguishers shall be visually inspected monthly and documented.

All portable fire extinguishers must be hydrostatically tested and maintained according to manufacturer’s recommendations. Portable fire extinguishers must have an annual maintenance check. The annual maintenance date should be recorded and the record retained for one year after the last entry or the life of the extinguisher, whichever is less. Only qualified persons shall make these inspections.

Inspection of Fixed and Portable Fire Suppression Equipment

Monthly, documented inspections should be made of all portable fire suppression equipment to ensure the equipment is accessible and ready for immediate use.

All fixed and portable fire suppression equipment should be given a thorough documented maintenance check by qualified service personnel at least annually.

Extinguishing Methods and Agents include the following:

- **Class "A" Fires (Cloth, wood, paper, etc.).** Water is the best extinguishing agent for Class "A" fires. Dry chemical extinguishers containing an ABC multi-purpose agent will also put out Class "A" fires.

- **Class "B" Fires (Flammable and Combustible Liquids and Gases).** ABC or BC dry chemical is the best agent for Class "B" fires. CO₂ can be used in some cases, but may be ineffective in outside windy locations. Foam extinguishes may be effective on small spill or pool fires of flammable or combustible liquids.

  - **Fires involving flammable gases** should not be extinguished until the fuel feeding the fire is shut off. Failure to do so may result in a flammable gas or vapor cloud traveling a considerable distance to a source of ignition. Water spray and fog can
be used to cool adjacent equipment and protect personnel. Once the fuel has been shut off, any remaining fire can be extinguished using a water spray or fog.

- **Class "C" fires** involve energized electrical equipment. Only portable fire extinguishers containing a nonconductive fire extinguishing agent such as dry chemical, carbon dioxide or Halon should be used. The products of combustion of electrical insulating materials are usually very toxic and should not be inhaled.

- When responding to an electrical fire, every reasonable effort should be made to shut off the electrical supply to the circuit or equipment. If unable to shut off the electrical supply, call an electrician to do so, or shut down the generator. Once the electrical supply has been turned off, it is safe to use water based extinguishing agents on the fire.

- **Class "D" fires** involve burning metals such as magnesium. Only Class D extinguishers that contain dry powder should be used on Class "D" fires.

- **Carbon dioxide** displaces oxygen and should not be used where the operator must enter very confined spaces or enclosures without self-contained breathing equipment. Likewise, high concentrations of Halon 1211 can be harmful if inhaled.

**General Alarm Systems**

The general alarm system / PA system shall provide sufficient warning time necessary for emergency actions to take place as called for in the Emergency Preparedness Plan (see Section F, Chapter 1), or for reaction time for safe escape of employees from the platform or the immediate work area, or both.

The employee alarm shall be capable of being perceived above ambient noise or light levels by all employees in the affected portions of the workplace.

The employee alarm shall be distinctive and recognizable as a signal to evacuate the work area or to perform actions designated under the emergency action plan.

The Person in Charge (PIC), Lead Operator, or Consultant shall explain to each employee the preferred means of reporting emergencies, such as manual pull box alarms, public address systems, radio, telephones, or Gaitronics.

Manned Platforms that do not possess a functioning general alarm system must obtain regulatory approval.
Definitions

Approved - accepted, certified, listed, labeled, or otherwise determined to be safe by a nationally recognized testing laboratory.

Combustible Liquids - any liquid having a flashpoint at or above 100°F (37.8°C). Combustible liquids shall be divided into two classes as follows:

- **Class II Liquids** - shall include those with flashpoints at or above 100°F (37.8°C) and below 140°F (60°C), except any mixture having components with flashpoints of 200°F (93.3°C) or higher, the volume of which make up 99 percent or more of the total volume of the mixture.

- **Class III Liquids** - shall include those with flashpoints at or above 140°F (60°C). Class III liquids are sub-divided into two subclasses:
  - **Class IIIA Liquids** shall include those with flashpoints at or above 140°F (60°C) and below 200°F (93.3°C), except any mixture having components with flashpoints of 200°F (93.3°C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.
  - **Class IIIB Liquids** shall include those with flashpoints at or above 200°F (93.3°C).

Extinguisher Classification - the letter classification given an extinguisher to designate the class or classes of fire on which an extinguisher will be effective.

Fire Brigade (private fire department, industrial fire department) – an organized group of employees who are knowledgeable, trained, and skilled in at least basic fire fighting operations.

Fixed Extinguishing System - a permanently installed system that either extinguishes or controls a fire at the location of the system.

Flammable Liquids (Class I) - any liquid having a flashpoint below 100°F (37.8°C).

Hot Work Permits for work in areas identified as potential fire hazards must be obtained from facility management or designee.

Incipient Stage Fire - a fire which is in the initial or beginning stage, and which can be controlled or extinguished by portable fire extinguishers.

Inspection - a visual check of fire protection systems and equipment to ensure that they are in place, charged, and ready for use in the event of a fire.

Vapor Density - the weight of a vapor or gas compared to the weight of an equal volume of air. Materials lighter than air have vapor densities less than 1.0 (e.g., acetylene, methane, hydrogen). Materials heavier than air (e.g., propane, hydrogen sulfide, ethane, chlorine) have vapor densities greater than 1.0. Lighter vapors and gases will tend to rise while heavier vapors are likely to concentrate in low places.