



# Fire Protection Program

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### 1. PURPOSE

The objective of this program is to establish practices, procedures and training for operation and maintenance of all fire protection systems within Mosaic Florida facilities.

### 2. SCOPE

The Fire Protection Program applies to employees and contractors in Mosaic Florida Operation facilities that are or may be affected by the proper operation of the fire protection equipment and systems. Systems and equipment that are included in the scope of this policy include:

- Portable extinguishers
- Fixed systems
- Fire systems on mobile equipment and draglines
- Alarm systems
- System impairments
- Fire drills

### 3. DEFINITIONS

- 3.1 Emergency Alarm System – Alarm system that is used for general notification of all personnel that an emergency is occurring.
- 3.2 Impairment – Removing an alarm, interlock, process trip, or fire protection system from service so that it will not function in case of an emergency.
- 3.3 National Fire Protection Association (NFPA) – A national agency that codifies rules and regulations for fire protection and other hazards by providing and advocating scientifically-based consensus codes and standards.
- 3.4 Snuffer – A system that is designed to extinguish a fire by depriving it of air. In liquid sulfur storage vessels, the snuffer is a set of pipes that provides steam to the vessel interior to extinguish the fire.



- 3.5 Motor Control Center (MCC) - At Mosaic a room or collection of motor control equipment (breakers and switches) grouped in centralized motor control centers.

#### 4. PROCEDURE

##### 4.1 General

- 4.1.1 Employees shall be trained in the use of the portable fire extinguishers.
- 4.1.2 Firefighting equipment shall not be obstructed and shall be kept visible. Portable fire extinguishers shall be mounted, located and identified so that they are readily accessible to employees.
- 4.1.3 Employees shall not tamper with fire equipment.
- 4.1.4 All fires, regardless of size, shall be reported to the immediate supervisor.
- 4.1.5 Within facilities, open fires and fires in drums and similar containers are prohibited except in supervised training situations.
- 4.1.6 Heat sources capable of producing combustion shall be separated from combustible materials as a fire hazard could be created.
- 4.1.7 A list of fixed and portable fire extinguishing systems shall be maintained at each facility.

##### 4.2 Fire Protection Systems and Equipment

###### 4.2.1 Inspections / Maintenance of Fire Protection Systems

- a. Inspection and maintenance frequencies of fire protection equipment and systems are listed in Fire Protection Systems Inspection Schedule in Appendix A. Included in the inspections list are: fire extinguishers, wheeled extinguishers, sprinkler systems, CO<sub>2</sub> systems, Halon systems, hydrants, PIV's (post indicator valve), fire pumps, back flow prevention, foam carts, fire hose reels / racks/ carts, fire hose (ERT), smoke detectors / fire alarms, and snuffers.

###### 4.2.2 Fire Extinguishers

- a. Fire extinguishers shall be visually inspected monthly and a maintenance check performed annually. An extinguisher tag shall indicate the inspection date and the initials of the person making the inspection, or some other means of identifying the inspections shall be utilized.
- b. All fire extinguishers shall have a legible serial number attached or otherwise identified.
- c. Fire extinguishers needing recharging or showing damage shall be replaced immediately.
- d. Fire extinguishers subject to harsh conditions should be protected by an approved cover.
- e. Wheeled fire extinguishers shall be inspected monthly by a qualified/certified person and reports submitted to the Safety Department or other designated person.
- f. Self-propelled equipment:
  - i. Self-propelled equipment shall be provided with fire extinguishers as outlined in each specific equipment policy.
  - ii. A fire suppression system may be used as an alternative to fire extinguishers if the system can be manually activated.
  - iii. Fire extinguishers or fire suppression systems shall be of a type and size that can extinguish fires of any class in their early stages.
  - iv. Fire extinguishers or manual actuators for the suppression system shall be located to permit their use by persons whose escape could be impeded by fire.
- g. Selection and Distribution



- i. Portable fire extinguishers shall be selected and distributed based on the classes of anticipated workplace fires and on the size and degree of hazard which would affect their use.
- ii. Portable fire extinguishers for use by employees on Class A fires (wood, paper, combustibles) shall be distributed so that the travel distance for employees to any extinguisher is 75 feet or less. Uniformly spaced standpipe systems or hose stations connected to a sprinkler system installed for emergency use by employees instead of Class A portable fire extinguishers may be used.
- iii. Portable fire extinguishers for use by employees on Class B fires (flammable / combustible liquids) shall be distributed so that the travel distance from the Class B hazard area to any extinguisher is 50 feet or less.
- iv. Portable fire extinguishers used for Class C hazards (electrical) shall be distributed on the basis of the appropriate pattern for the existing Class A or Class B hazards.

#### 4.2.3 Fixed Systems

##### a. Fire Water Systems

- i. Plant fire water systems shall be checked as shown in Appendix A and records of this inspection shall be kept.
- ii. Cabinets containing fire hose, wrenches and nozzles shall be maintained in good condition and kept clean.

##### b. Hydrants shall be provided with:

- i. Uniform fittings or readily available adapters;
- ii. Readily available wrenches or keys to open the valves; and
- iii. Readily available adapters capable of connecting hydrant fittings to the hose equipment of any firefighting organization.
- iv. Fire water systems shall be maintained as per the inspection schedule in Appendix A.

##### c. Sprinkler Systems

- i. Sprinkler systems shall be maintained to NFPA standards.
- ii. Sprinkler systems shall be inspected as per the inspection schedule in Appendix A.

##### d. Halon, CO<sub>2</sub>, FM 200, (other similar) Systems

- i. Halon systems shall be maintained to NFPA standards.
- ii. Halon systems shall be inspected as per the inspection schedule in Appendix A.
- iii. Smoke detectors located in Motor Control Centers shall be tested at least annually.


##### e. Snuffers (sulfur storage)

- i. Systems will be tested semi-annually.

##### f. Each employee entering or working in laboratories, computer rooms, or dragline compartments protected by fire suppression systems that utilize agents such as Halon, CO<sub>2</sub>, FM200, or other asphyxiants, will be required to take the following precautions to ensure personal protection in the event of an unexpected deployment. . Exception – If the system has been sufficiently isolated to prevent unexpected deployment, the following precautions will not be necessary unless required to comply with other procedures such as Confined Space Entry.

- i. Carry an Emergency Escape Breathing Apparatus
- ii. Carry an Oxygen Monitor



- iii. Carry a communication device for emergency communications
- 4.3 Alarm Systems
  - 4.3.1 Emergency Alarm Systems for each facility shall be tested as outlined in facility specific Emergency Action Plans.
- 4.4 Fire Protection System Impairments
  - 4.4.1 Impairment is considered to be any condition that would substantially interfere with or reduce the effectiveness of any portion of the fire protection system. Fire protection systems include fixed systems (sprinkler, Halon, CO<sub>2</sub>, hydrants, etc.).
  - 4.4.2 Impairment of fire protection systems shall be approved in writing.
  - 4.4.3 A "Critical Safety Device By-Pass Permit" must be used whenever a fire protection system is impaired, malfunctioning or fails an inspection/functional test and it is necessary to operate the equipment or process with alternative safeguards in place.
  - 4.4.4 Upon Management approval, the permit is valid for up to 7 days. (Refer to the Critical Safety Device By-Pass Procedure and the Matrix for Final Safety Approval.)
  - 4.4.5 Alternative means of protection, such as fire watches, shall be employed when fixed fire extinguishing systems are impaired.
  - 4.4.6 Impairment of a fire protection system is managed as follows:
    - a. Impairment Notification – Mosaic’s Risk Management Department has designated FM Global to manage the impairment notification process and pass along appropriate information to Corporate Environment, Health and Safety and the insurance carriers.
      - i. Refer to the Site List – FM Global Contact Information for specific telephone and email reporting information as every site reports to a dedicated regional FM Global office.
      - ii. Impairments can also be reported online at [Red eTag \(fmglobal.com\)](http://Red eTag (fmglobal.com)).
    -  **Reference: EHSS North America Business Reference – FM Global Index #'s**  
[Link to FM Global Index #'s](#)
    - b. Report the impairment of the fire protection system to FM Global, the appropriate business unit management and local fire department.
      - i. Indicate:
        - A. Location of plant, office or laboratory.
        - B. Type of impairment.
        - C. Section of the system impaired.
        - D. Time system taken out of service.
        - E. Estimated time the system will be back in service.
        - F. Include FM Global account code #1-53737 and FM Global Index Number. The Index Number is specific to each Mosaic facility.
      - c. When the system is returned to service, report to FM Global, the appropriate business unit management and local fire department (if appropriate) indicating the time the system was returned to service.
- 4.5 Fire Fighting Drills
  - 4.5.1 Emergency firefighting drills shall be held at least once every six months for persons assigned firefighting responsibilities. The drill shall be critiqued and any recommendations resolved.
- 4.6 Emergency Action Plans



- 4.6.1 Each facility shall maintain an Emergency Action Plan that includes procedures relating to fire protection and evacuation, etc.

## 5. TRAINING

### 5.1 Employees

- 5.1.1 All newly hired employees shall receive instruction in the use of portable fire extinguishers.
- 5.1.2 All employees will receive annual instruction in the use of portable fire extinguishers. The employees shall be familiarized with general principles of fire extinguisher use and the hazards involved with incipient stage firefighting.

### 5.2 Emergency Response Team Members

- 5.2.1 ERT members will receive initial and refresher training as specified in the ERT program. The training shall include training in the use of the appropriate fire protection equipment.

### 5.3 Personnel Who Control Operation of Fixed Systems

- 5.3.1 Personnel who control the operation of fixed systems shall receive specific training for the systems under their control.
  - a. The training shall be conducted when the employee commences control of the system, and triennially thereafter.
  - b. The training shall include familiarization with the system, its functioning, alarms, activation, control panel, and notification of appropriate response personnel.
  - c. The training shall be documented and tracked per the Mosaic Record Retention Policy.

 **Reference: Mosaic Record Retention Policy**

## 6. PROGRAM REVIEW/PERIODIC INSPECTIONS

- 6.1 The Fire Protection Program will be reviewed at least every seven years. The review shall be initiated by the Safety Department.
- 6.2 Inspections
  - 6.2.1 All fire protection equipment and systems shall be inspected and tested periodically. The frequency of the inspections and any required tests are listed in Appendix A.

## 7. CONTRACTORS

- 7.1 Contractors shall follow any provisions of this Program that are applicable to them and fire protection equipment that they supply, such as the inspection and testing of portable fire extinguishers.

## 8. APPENDICES

- 8.1 Appendix A - Fire Protection Systems Inspection Schedule

## 9. REFERENCES

- 9.1 OSHA 29 CFR
  - 9.1.1 1910.38 - Emergency action plans.
  - 9.1.2 1910.39 - Fire prevention plans.
  - 9.1.3 1910.156 - Fire brigades
  - 9.1.4 1910.157 - Portable fire extinguishers
  - 9.1.5 1910.158 - Standpipe and hose systems
  - 9.1.6 1910.159 - Automatic sprinkler systems



- 9.1.7 1910.160 - Fixed extinguishing systems, general
- 9.1.8 1910.161 - Fixed extinguishing systems, dry chemical
- 9.1.9 1910.162 - Fixed extinguishing systems, gaseous agent
- 9.1.10 1910.163 - Fixed extinguishing systems, water spray and foam
- 9.1.11 1910.164 - Fire detection systems
- 9.1.12 1910.165 - Employee alarm systems
- 9.2 MSHA 30 CFR
  - 9.2.1 56.4100 - .4130 Prohibitions/Precautions/Housekeeping
  - 9.2.2 56.4200 - .4230 Firefighting Equipment
  - 9.2.3 56.4330 - .4331 Firefighting Procedures/Alarms/Drills
  - 9.2.4 56.4400 - .4430 Flammable And Combustible Liquids and Gases
  - 9.2.5 56.4500 - .4531 Installation/Construction/Maintenance
  - 9.2.6 56.4600 - .4604 Welding/Cutting/Compressed Gases
- 9.3 NFPA
  - 9.3.1 No. 25
  - 9.3.2 No. 72
  - 9.3.3 No. 2001

10. REVISION LOG

Revision Log				
Rev. No.	Requested By	Approved By	Revised By	Rev. Date
0	Initial Issue	Safety Advisory Panel	CSIP Task Team	9/22/04
1	Logo Change	Safety and Health	J. Marshall	11/14/06
2	Safety Dept.	Safety Dept.	B. Roberts	6/6/07
2	Reformat for ISO		D. Allen	9/28/2011
3	J. Brandt - Modified section 4.4, Impairments, to address new Critical Safety Device Program.		D. Allen	
4	Mike Neal		Brent Roberts	3/31/12
5	Review for out of date	PMO	PMO	9/30/2021
6	Review for up to date	PMO	PMO	5/1/2023
Contact the Subject Matter Expert for additional information on this program.				