

## FESHM 6014: FIRE WATCH

### Revision History

<b>Author</b>	<b>Description of Change</b>	<b>Revision Date</b>
Jim Niehoff	Updated Introduction, added definitions and added Section Table Matrix under Section 4.0 to provide guidance on when fire watch is required.	March 2021
J. Priest & J. Niehoff	Updated to new Template and modified definitions and responsibilities to reflect current organization chart.	September 2015
William James	Some minor editorial changes were made.	February 2011

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## 1.0 INTRODUCTION

Fire Watch is a temporary measure used to ensure the fire safety of a facility or premises and the people therein during a situation which creates an increased risk of fire danger. The term Fire Watch is also used to describe a dedicated person(s) whose sole responsibility is to look for fires and other hazards within a building, specific area, or premises.

Fire Watch is intended to ensure continuous and systematic surveillance of a building, or portion thereof, by one or more qualified individuals for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire, and notifying the fire department, and evacuating the building.

For most facilities, Fire Watch is required when:

- Whenever the building's fire alarm system, or fire sprinkler system, will be out of service. There are typically three general types of circumstances that require Fire Watches for building fire alarm/sprinkler systems: Emergency Repairs, Scheduled Repairs and Unexpected Repairs, reference FEHSM Chapter 6030 for impairment process when a fire alarm system or fire sprinkler system will be out of service.
- Whenever "hot work," such as welding or hot tar roof repairs, are going on anywhere on the premises.
- During building demolition whenever the Fire Department or FP-AHJ determines the operation is hazardous in nature, reference FESHM Chapter 7050.
- When the Fire Department or FP-AHJ determines it is essential for public safety in a place of assembly or congregation due to the number of people, the nature of the performance, exhibition, display, contest, or activity

This chapter outlines the responsibilities and procedures to establish a Fire Watch. This chapter only applies to the Fermilab site. Leased space will follow the rules and regulations set forth by the partnering institute(s) and/or state or local codes.

## 2.0 DEFINITIONS

- **After Hours** – Monday through Friday between 3:30 PM and 7:00 AM, holidays, and weekends.
- **Automatic Fire Suppression Systems** – sprinklers, Halon, foam, Carbon Dioxide, water mist, and dry and wet chemical systems.
- **Disablement** – The process of shut-down or impairment of a fire protection system, or the documentation and notification of system or component failures.
- **Fire Detection Systems** - smoke detectors, thermal detectors, ultra-violet flame detectors, manual pull stations, water flow detectors, etc., connected to a fire alarm control panel.
- **Fire Protection Authority Having Jurisdiction (FP-AHJ)** - responsible for overseeing the overall implementation and oversight of the Fermilab Fire Protection Program from the ES&H Section.



- **Fire Systems Maintenance (FSM) Technician** – individual trained in the inspection, testing, and maintenance of fire protection systems throughout the Laboratory (including Water Based Systems, Fire Alarm Components, and Special Systems). The FSM Technicians or delegated designees conduct the actual planned disablements.
- **Fire Watch** – a person or persons designated to periodically or continually monitor a facility for potential fire emergencies when detection and/or suppression systems are impaired or disabled.
- **Hot Work** - Any work involving welding, brazing, soldering, heat treating, grinding, powder-actuated tools, hot riveting and all other similar applications producing a spark, flame, or heat, or similar operations that are capable of initiating fires or explosions.
- **Impairment** – The status of any component or portion of a fire detection/suppression system that is not 100% functional.
- **Long-Term Disablement** – disablement of a fire detection/suppression system for greater than or equal to 48 hours.
- **Normal Work Hours** - Monday through Friday between 7:00 AM and 3:30 PM, excluding holidays.
- **Short-Term Disablement** – disablement of a fire detection/suppression system for less than 48 hours.

Reference FESHM Chapter 6010 for additional definitions of Building/Area Manager, Fire Protection Engineer, FIRUS, and Irregularity Report. See FESHM Chapter 7010 for definitions of Task Manager and Construction Coordinator and FESHM Chapter 7020 for definition of Service Coordinator.

## 3.0 RESPONSIBILITIES

**3.1 Division/Section/Center Heads** are responsible for assuring that when detection /suppression systems are disabled, a fire watch appropriate to the situation/facility is established. This responsibility must be communicated through the management levels to include Building/Area Managers, Division Safety Officers, Task Managers, Construction Coordinators, Service Coordinators, and designees.

**3.2 Division Safety Officer** shall implement a fire watch program for facilities that have lost power or has had the fire suppression/detection systems taken off-line following the procedures outlined in this chapter.

**3.3 Facilities Engineering Services Section (FESS) FSM** is responsible for

- Following the specific procedures outlined in FESHM Chapter 6030 when disabling and re-enabling fire detection/suppression systems upon the proper request of personnel in the division/section, or in an emergency (if available).
- Documenting and distributing the Fire Detection/Suppression System Long Term Disablement Request Form to appropriate personnel.
- Delegating disablements to trained personnel by following the requirements in the “Delegated Disablement Procedures” section in FESHM Chapter 6030.
- Training and instructing individuals in proper disablement procedures.



- 3.4 **Security Operations Center** is responsible for making appropriate notifications of personnel in accordance with current Security procedures and the requirements of this chapter.
- 3.5 **Fermilab Fire Department (FFD)** shift officer is responsible for requesting disablement on an emergency basis where system failures occur or as a result of other off-hours problems.
- 3.6 **Fire Protection – Authority Having Jurisdiction (FP-AHJ)** is responsible for reviewing all long-term disablements, investigating unresolved disablements and reporting them to the Chief Safety Officer.
- 3.7 **Task Managers, Construction Coordinators, and Service Coordinators** are responsible for
- Managing disablement and re-enablement procedures during the course of a specific project.
  - Planning for disablements and contacting FSM for instruction

#### 4.0 FIRE WATCH

In the event a portion of the fire detection, protection or suppression system is rendered inoperative/disabled, a Fire-Watch may be required.

Upon notification that the fire detection, protection or suppression system is rendered inoperative for a facility, the Division Safety Officer will determine the need and level for a Fire Watch. If it is determined that a fire watch is required, then **it shall be implemented** for the duration of the problem.

There are at least two general types of Fire Watches in connection with Emergency Repairs. 1. Building Wide which may include all interior and exterior areas of a building. Partial Building Fire Watch shall involve a significant area, floor, wing, atrium, theater, lobby, cafeteria or some other significant portion of a building. The following matrix provides a guide for conditions under which a facility Fire Watch may be required.

Condition	Status of Fire Suppression/Sprinkler System Occupied Building	Status of Fire Alarm System Normally Occupied Building	Initiate Fire Watch	
			No	Yes
1	System Functional	System Functional	X	
2	System Functional	System Disabled		X
3	System Disabled	System Functional		X
4	System Disabled	System Disabled		X

Condition	Status of Fire Suppression/Sprinkler System Un-occupied Building	Status of Fire Alarm System Normally Un-occupied Building	Initiate Fire Watch	
			No	Yes
1	System Functional	System Functional	X	
2	System Functional	System Disabled		X
3	System Disabled	System Functional	X	
4	System Disabled	System Disabled		X



## 5.0 REQUIREMENTS

A fire watch requires a qualified person or persons in attendance during the times when fixed fire detection systems have been taken out of operation. The fire watch participants should be familiar with the operation of systems/operations in the building, capable of moving throughout the building and be able to notify emergency responders.

Fire Watchers must be familiar with alarm location and procedures for sounding an alarm in the event of a fire, and other life safety alarms (ODH, Hazardous Atmosphere, etc.). The assignment of a person or persons to an area is for the express purpose of notifying the fire department, the building occupants, or both of an emergency; preventing a fire from occurring; extinguishing small fires; or protecting the public from fire or life safety dangers.

Based on the size of the building, operations occurring within the building and the criticality of the building to Laboratory operations the solution to the Fire Watch issue may range from having duty electrician/mechanic or FESS Facility Management periodically check the building during their tours through having Division/Section personnel physically inside the building until the problem has been fixed.

In planning for and assigning a Fire Watch, the following must be considered:

- Equipping individual with a flashlight and two-way radio or cell phone
- Providing a route and timetable for touring the facility
- Providing a check-in schedule with the Communications Center
- Providing a replacement for the Fire Watch after a set period of time
- Portable fire extinguisher training

## 6.0 REFERENCES

- International Fire Code (IFC), 2018 Section 3504.
- National Fire Protection Association (NFPA) 25, Standard for the Inspection, Testing, & Maintenance of Water-Based Fire Protection Systems, 2017, Section 3.3.21.
- NFPA 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, 2019
- NFPA 101, Life Safety Code, 2018, Section 3.3.108
- FESHM Chapter 6020.2, Welding, Burning, Brazing and Spark Producing Operations
- FESHM Chapter 6030, Disablement of Fire Protection Systems