

FIRE PROTECTION IMPAIRMENT PROGRAM

1.0 PURPOSE

There are times when it may be necessary to disable a fire protection system. The purpose of this policy is to properly manage the risks associated with impairing a fire protection system. Environment Health & Safety has established impairment procedures that shall be followed whenever a fire protection system is taken out of service.

2.0 SCOPE

This program will outline specific measures to be taken during fire protection impairment to ensure that increased risks are minimal and duration of the impairment is limited.

An effective fire protection impairment program will:

- Supervise the safe shutdown of a fire protection system
- Control potential fire hazards during the impairment
- Restore the fire protection system to service as soon as possible
- Meet regulatory obligations outlined in NFPA/IFC/OSHA

This program applies to all University of Wisconsin – Madison employees, outside contractors and their representatives, any company representative hired by the University of Wisconsin – Madison to provide service, or any other outside trade worker who will be working at or within a University of Wisconsin – Madison facility.

3.0 RELATED DOCUMENTS

NFPA 25 Inspection, Testing and Maintenance of Water-Based Fire Protection Systems

NFPA 72 National Fire Alarm and Signaling Code

IFC International Fire Code Chapter 9

4.0 DEFINITIONS

Authority Having Jurisdiction (AHJ) is an organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation or a procedure.

Fire Protection System is a fire sprinkler system, fire standpipe system, underground fire service main, fire pump, water spray fire suppression system, carbon dioxide fire suppression system, halogenated fire suppression system, wet chemical fire suppression system, FM-200 fire suppression system, a special extinguishing fire suppression system, dry chemical fire suppression system, or a fire alarm system.

Fire Watch is a temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals for the purpose of identifying and controlling fire hazards,

detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department. Person(s) doing the fire watch shall not be assigned any other task.

Impairment is the shutdown, in whole or part of a fire protection system.

Impairment Coordinator (IC) is the person who manages the impairment while the system work is being performed and has overall responsibility for proper implementation of the fire protection impairment program.

Normal business hours are Monday through Friday from 7:45 A.M. to 4:30 P.M., excluding University approved holidays.

Off business hours are all other times not defined as Normal Business Hours.

5.0 ROLES AND RESPONSIBILITIES

Impairment Coordinator. The International Fire Code (IFC) requires the assignment of an impairment coordinator by the property owner. The impairment coordinator for UW-Madison is John Rindfleisch (608)-598-0052 from Environment Health & Safety. The impairment coordinator:

- Authorizes the shut down of the fire protection system
- Ensures that the impairment procedures are being followed and completed
- Verifies that steps to restore system to service have been followed and that the system(s) are restored to service as soon as possible.

University of Wisconsin-Madison Employees. UW employees fall within the requirements and need to follow the instructions outlined within this impairment policy. If deviation of this policy is needed, a call to EH&S is needed to discuss alternatives.

Outside Contractors. Any contracted person or organization shall follow the instructions outlined within this impairment policy. If deviation of this policy is needed, a call to EH&S is needed to discuss alterations.

6.0 IMPAIRMENT PROGRAM REQUIREMENTS

When a fire protection system is impaired (i.e. taken out of service), EH&S, UWPD dispatch, and MFD shall be notified immediately and, where required, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the impairment until the fire protection system has been returned to normal service.

During any impairment, Hot Work is prohibited, including cutting and welding. If Hot Work is essential to complete the work, a procedure must be discussed and agreed upon in advance with EH&S.

7.0 PROCEDURES – Water Based Fire Protection System

Pre-Planned Impairment

- Determine the expected length and duration of the impairment
- Survey and inspect the area of the building that will be affected by the impairment
- Consult with the facility manager about the area in question and potential inconveniences

- Get approval from the impairment coordinator (IC) to allow the impairment to happen
- Complete and submit a pre-impairment form <https://ehs.wisc.edu/impairment-form/>

Day of Planned Impairment – Water Based Fire Protection System

- Survey area to ensure work area has not changed
- Notify affected building occupants of the planned impairment
- Confirm a pre-impairment worksheet has been submitted to EH&S, UWPD dispatch and MFD
- Ensure no Hot Work is being done in conjunction with a planned water-based fire protection impairment
- Ensure hazardous operations (i.e. flammable and combustible liquid use) is not conducted during an impairment
- Tag all applicable devices.
 - FDC, FACP, main riser control valve, isolation valve(s)

During Impairment – Water Based Fire Protection System

- Expedite work to ensure the water-based fire protection system is impaired for the shortest period of time
- Perform a fire watch for the affected area (if needed) <https://ehs.wisc.edu/impairment-fire-watch-form/>
- Prohibit any Hot Work activities including cutting and welding. If Hot Work is needed in order to facilitate work, a Hot Work Permit Schedule Form shall have been completed and submitted to EH&S Impairment Coordinator for approval. <https://ehs.wisc.edu/hot-work-permit/>
- **If Hot Work is needed in order to facilitate work, an approved EH&S Hot Work permit shall be on-site and posted.**

After Impairment – Water Based Fire Protection System

- Open all valves that were closed during impairment.
- Remove tags from all components.
- If a fire alarm system is involved, make sure the fire alarm system is restored to normal operating condition
- Perform necessary inspection and testing of the impaired water-based fire protection system to ensure the system is normal. At minimum a main drain test is required to ensure valves are in their proper position(s)
- Complete and submit a post-impairment form to EH&S, UWPD dispatch, and MFD. An electronic link was created and emailed to the responsible party who submitting the pre-impairment form.
- Submit a completed impairment fire watch for the affected area (if needed) <https://ehs.wisc.edu/impairment-fire-watch-form/>
- Notify facility manager the impairment and work is complete

Emergency or Unplanned Impairment – Water Based Fire Protection System

- Stabilize the situation and control water flow to prevent a major loss of equipment or damage to the area
- Notify EH&S, UWPD dispatch and MFD of the situation
- Follow steps outlined within;
 - **During Impairment - Water-Based Fire Protection System and**
 - **After Impairment - Water-Based Fire Protection System.**

PROCEDURES – Fire Alarm System

Pre-Planned Impairment

- Determine the expected length and duration of the impairment
- Survey and inspect the area of the building that will be affected by the impairment
- Consult with the facility manager about the area in question and potential inconveniences
- Get approval from the impairment coordinator (IC) to allow the impairment to happen
- Complete and submit a pre-impairment form <https://ehs.wisc.edu/impairment-form/>

Day of Planned Impairment – Fire Alarm System

- Survey area to ensure work area has not changed
- Notify affected building occupants of the planned impairment
- Confirm a pre-impairment worksheet has been submitted to EH&S, UWPD dispatch and MFD
- Ensure no Hot Work is being done in conjunction with a planned fire alarm system impairment
- Ensure hazardous operations (i.e. flammable and combustible liquid use) is not conducted during an impairment
- Tag all applicable devices.
 - FACP

During Impairment – Fire Alarm System

- Expedite work to ensure the fire alarm system is impaired for the shortest period of time
- Perform a fire watch for the affected area <https://ehs.wisc.edu/impairment-fire-watch-form/>
- Prohibit any Hot Work activities including cutting and welding. If Hot Work is needed in order to facilitate work, a Hot Work Permit Schedule Form shall have been completed and submitted to EH&S Impairment Coordinator for approval. <https://ehs.wisc.edu/hot-work-permit/>
- **If Hot Work is needed in order to facilitate work, an approved EH&S Hot Work permit shall be on-site and posted.**

After Impairment – Fire Alarm System

- Ensure the Fire alarm panel is normal.
- Remove tags from all components.
- Complete and submit a post-impairment form to EH&S, UWPD dispatch, and MFD. An electronic link was created and emailed to the responsible party who submitting the pre-impairment form.
- Submit a completed impairment fire watch form <https://ehs.wisc.edu/impairment-fire-watch-form/>
- Notify facility manager the impairment and work is complete

Emergency or Unplanned Impairment – Fire Alarm System

- As soon as the situation is under control, begin following the steps outlined under **Day of Planned Impairment, Impairment and After Impairment.**

PROCEDURES – Fire Suppression Systems

Pre-Planned Impairment

- Determine the expected length and duration of the impairment
- Survey and inspect the area of the building that will be affected by the impairment
- Consult with the facility manager about the area in question and potential inconveniences
- Get approval from the impairment coordinator (IC) to allow the impairment to happen
- Complete and submit a pre-impairment form <https://ehs.wisc.edu/impairment-form/>

Day of Planned Impairment – Fire Suppression System

- Survey area to ensure work area has not changed
- Notify affected building occupants of the planned impairment
- Confirm a pre-impairment worksheet has been submitted to EH&S, UWPD dispatch and MFD
- Ensure no Hot Work is being done in conjunction with a planned fire alarm system impairment
- Ensure hazardous operations (i.e. flammable and combustible liquid use) is not conducted during an impairment
- Tag all applicable devices.
 - FACP, control panel

During Impairment – Fire Suppression System

- Expedite work to ensure the fire alarm system is impaired for the shortest period of time
- Perform a fire watch for the affected area <https://ehs.wisc.edu/impairment-fire-watch-form/>
- Prohibit any Hot Work activities including cutting and welding. If Hot Work is needed in order to facilitate work, a Hot Work Permit Schedule Form shall have been completed and submitted to EH&S Impairment Coordinator for approval. <https://ehs.wisc.edu/hot-work-permit/>
- **If Hot Work is needed in order to facilitate work, an approved EH&S Hot Work permit shall be on-site and posted.**

After Impairment – Fire Suppression System

- Ensure the Fire alarm panel is normal.
- Remove tags from all components.
- Complete and submit a post-impairment form to EH&S, UWPD dispatch, and MFD. An electronic link was created and emailed to the responsible party who submitting the pre-impairment form.
- Submit a completed impairment fire watch form <https://ehs.wisc.edu/impairment-fire-watch-form/>
- Notify facility manager the impairment and work is complete

Emergency or Unplanned Impairment – Fire Suppression System

- As soon as the situation is under control, begin following the steps outlined under **Day of Planned Impairment, Impairment and After Impairment.**

8.0 FIRE WATCH

A fire watch is utilized for a fire alarm or automatic fire protection system shutdown. A fire watch will be comprised of individuals beyond normal staffing, assigned to walk the area affected. Fire watch personnel must be trained in use of fire extinguishers. Fire watch personnel must only be tasked with the duties of fire watch. Fire watchers shall be provided with at least one approved means of notification of the fire department and their only duty shall be to perform constant patrols of the premises and keep watch for fires. Fire watchers shall document their fire watches by using the fire watch log sheet (Appendix B for Impairment Fire Watch or Appendix D for Hot Work Fire Watch).

APPENDIX A IMPAIRMENT FORM

<https://ehs.wisc.edu/impairment-form/>

**APPENDIX B
IMPAIRMENT FIRE WATCH FORM**
<https://ehs.wisc.edu/impairment-fire-watch-form/>

**APPENDIX C
HOT WORK SCHEDULE FORM**
<https://ehs.wisc.edu/hot-work-permit/>

**APPENDIX D
HOT WORK FIRE WATCH FORM**
<https://ehs.wisc.edu/hot-work-fire-watch-form/>

9.0 DOCUMENT REVISION: Each time the document is revised, list the revisions in the table below. This will always be the last section of the document.

Revision History		
Revision Number	Revision Date	Description of Revision
1		
2		
3		