Fire Prevention and Community Risk Reduction Division

Fire Protection System Impairment Procedures

This is not an all-inclusive list of requirements; this shall serve as a general guide. All projects must be in accordance with the Poudre Fire Authority adopted fire code and all adopted amendments per City of Ft Collins, Town of Timnath, Larimer County and Weld County.

POUDRE FIRE AUTHORITY
102 Remington St. Fort Collins, CO 80524 970.416.2891 www.poudre-fire.org

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ADOPTED FIRE CODE & AMENDMENTS

The 2024 IFC, as amended, is the current adopted fire code for all portions of the Poudre Fire Authority the City of Fort Collins, the Town of Timnath, and portions of Larimer and Weld Counties. In addition, the NFPA references as well as other codes/standards listed in Chapter 80 are adopted as part of the PFA fire code. The use of more current codes/standards, such as NFPA, may be accepted; provided it is requested in advance.

https://www.poudre-fire.org/programs-services/community-safety-services-fire-prevention/fire-code-adoption

PURPOSE

To establish procedures to be followed when a fire protection system is taken out of service due to construction, alteration, power outage, repair, planned impairment or an emergency condition. These procedures include measures taken during the impairment to ensure that increased risks are minimized, and the duration of the impairment is limited. Procedures set forth in this policy do not apply to routine scheduled inspection, testing, and maintenance.

OVERVIEW

The probability of a fire or explosion causing major damage is increased whenever a fire protection system is impaired. The longer the fire protection system is impaired, the greater the probability becomes.
A Fire Protection Impairment Program is an effective management program used to:

- Supervise the safe shutdown of fire protection systems
- Control potential fire hazards during the impairments
- Restore the fire protection system to service as soon as possible
- Meet regulatory obligations outlined in NFPA / IFC / Colorado State Regulations

DEFINITIONS

Fire Protection Systems: Sprinkler systems, standpipe systems, fire hose systems, underground fire service mains, fire pumps, water storage tanks, water spray fixed systems, foam-water systems, special extinguishing systems, fire service control valves, fire alarms systems, and emergency lights.

Firewatch: a person or persons designated to physically patrol the area where the fire protection system is impaired.

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

Emergency impairment: when a fire protection system is out of service due to an unexpected occurrence, such as a ruptured pipe or an unexpected power outage.

Planned impairment: when a fire protection system is out of service due to work that has been planned in advance, such as revisions to the water supply or sprinkler piping system.

Level 1 impairment: when a limited number of components of a fire protection system are found to be defective or removed from service. A Level 1 impairment represents a minimal impact to the overall life safety of building occupants.

Level 2 impairment: a shutdown of an entire fire protection system, or major portion, significantly affecting occupant life safety.

Impairment Coordinator (IC): The person who manages the impairment while system work is being performed and has overall responsibility for proper implementation of the Fire Protection Impairment Program. The Fire Protection Manager will be designated as the Impairment Coordinator.

International Fire Code (IFC) – Currently adopted code

Poudre Fire Authority (PFA) – Authority have jurisdiction

National Fire Protection Association (NFPA) – Reference standard

Normal business hours are Monday – Friday from 8a to 5p & Friday 8a – 12:00p

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

FIRE PROTECTION SYSTEMS

The Fire Protection System Impairment procedures apply to the following systems. This includes planned or emergency outages of the system or devices.

- Fire Alarm System
- Detection System
- Special Suppression Systems (CO2, Clean Agent, Dry Chemical, Water Spray, Kitchen Suppression)
- Automatic Sprinkler Systems
- Standpipe and hose systems
- Fire Pumps and water storage tanks
- Underground piping and control valves

COMPLIANCE AND RESPONSIBILITY

Any person, and his/her organization, who performs fire system installation, maintenance, testing, repair, or other operations which require impairment of a fire system shall be responsible for compliance with these procedures.

Impairment Coordinator. The International Fire Code (IFC) requires the assignment of an impairment coordinator by the property owner.

- The IC will determine the level of impairment due to a shutdown, in whole or part, of a fire protection system.
- The IC will be responsible for completion of the System Outage Form authorizing Level 1 impairments.
- The IC will be responsible for issuing and verifying removal of Fire & Life Safety system permit/impairment tags when authorizing Level 1 impairments.
- The IC will be responsible for coordination of the Firewatch, if it has been determined that a Firewatch is necessary.
- The IC will be responsible for providing training to employees who will be utilized as Firewatch personnel.

Outside Contractors. Any contracted person or organization shall follow the instructions outlined within this impairment policy.

- Any Contractor/contractor's representative or outside worker who impairs a fire protection system, in whole or part, must first notify the Impairment Coordinator at facilities.
- If an impairment permit is required, the contractor, contractor's representative, or outside worker will attach the Fire & Life Safety System Permit/Impairment Tag to the fire department connection for sprinkler system impairments or to the fire alarm annunciator/control panel for fire alarm systems.

NOTIFICATION AND AUTHORIZATION

The person or organization reporting or scheduling fire system impairment is referred to as the "requestor" and is responsible for coordinating the fire system impairment.

A. Emergency Impairment Procedures

When an emergency impairment occurs, emergency action will be taken to minimize potential injury and damage. The requestor will notify the following immediately before a minor impairment:

- Facilities Management

- Poudre Fire Authority https://www.poudre-fire.org/online-services/system-outage-or-safety-concern-notification-form
- The impairment coordinator shall apply for any necessary permits with PFA

B. Preplanned Impairments

All scheduled fire system impairments shall be coordinated and scheduled within 72 hours before work is performed. Formal plan for the duration of the impairment must be submitted and approved by the AHJ to mitigate any increased risks.

The following shall be notified for scheduled outages that are more than ten (10) hours in duration (or outside of regular business hours), impairments of two or more systems, or any impairment of water supply:

- Facilities Management, the insurance carrier, the alarm company, property owner or designated representative
- Poudre Fire Authority https://www.poudre-fire.org/online-services/system-outage-or-safety-concern-notification-form
- Poudre Fire Authority Assistant Fire Marshal Katie Quintana 970-294-6748 katie.quintana@poudre-fire.org
- A Tag Impairment System has been implemented (NFPA 25 15.3, NFPA 25 Annex G, and Code of Colorado Regulations 8 CCR 1507-11 Section 6.4.6)

PROCEDURES – WATER BASED FIRE PROTECTION 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.

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 System Outage Form submitted to PFA.
- 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, FACU, main riser control valve, isolation valve(s).

During Impairment – Water Based Fire Protection Systems

- 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).
- Prohibit any Hot Work activities including cutting and welding. If Hot Work is needed to facilitate work, **Hot Work permit shall be on-site and posted.**

After Impairment – Water Based Fire Protection System s

- 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, and notify monitoring company.

- 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).
- Submit a completed impairment fire watch for the affected area (if needed).
- Notify facility manager the impairment and work is complete.
- Notify PFA the system is back in service.

Emergency or Unplanned Impairment – Water Based Fire Protection System s

- Stabilize the situation and control water flow to prevent a major loss of equipment or damage to the area.
- 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 System Outage Form submitted to PFA.

Day of Planned Impairment – Fire Alarm System

- Survey area to ensure work area has not changed.
- Notify affected building occupants of the planned impairment.
- Notify monitoring company.
- 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: FACU.

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.
- Prohibit any Hot Work activities including cutting and welding. If Hot Work is needed to facilitate work, **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.
- Submit a completed impairment fire watch for the affected area (if needed).
- Notify facility manager the impairment and work is complete.
- Notify monitoring company.
- Notify PFA the system is back in service.

Emergency or Unplanned Impairment – Fire Alarm System

- Follow steps outlined within:
    - **During Impairment – Fire Alarm System and**
    - **After Impairment – Fire Alarm System.**

FIRE WATCH

A fire watch is utilized for a fire alarm or automatic fire protection system shutdown, or impairment. 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 to notify 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.

Fire Watch Agreement

Fire Watch Requirements

Fire Watch shall be required in the event any fire protection system of an occupied or hazardous building is out of service, is being modified due to construction, or if there have been significant number of nuisance alarms as determined by Poudre Fire Authority (PFA). The direction in this policy is subject to extenuating circumstances and may be amended by the Fire Marshal or Fire Chief.

The building owner (or his/her representative) is required to conduct a fire watch until the system is repaired and fully operational. Persons performing fire watch may include the building/business owner or their designee(s). In the event the owner or their designees are unable to perform fire watch, a private security company or other professional fire watch shall be established.

Owner Responsibilities

During a fire watch, the building/business owner's responsibilities will be to:

- Establish, instruct and maintain fire watch personnel.
- Notify the alarm monitoring company.
- Notify occupants of the building.
- Notify PFA the system is back in service

Fire Watch Duties

Fire watch personnel are not allowed to have duties other than their assigned fire watch. Additionally, the fire watch personnel must not perform firefighting duties beyond the scope of the ordinary citizen.
Persons serving as a fire watch have the following duties:

- Determine at least one means of communication with PFA. If it is a cell phone, ensure cell coverage is adequate and continuous.
- Have knowledge of the location and use of fire protection equipment, such as fire extinguishers and fire alarm manual pull stations (if in workable condition). Fire extinguishers must be available on each floor and within 75 feet of exit travel.
- Conduct periodic patrols of the entire facility as specified (special attention shall be paid to storage areas, janitor closets, utility spaces, basements, attics, etc., and other normally unoccupied areas).
- Identify any fire, life or property hazards.
- Record each tour of the premises on the fire watch log provided by PFA.
- If a fire is discovered, activate the fire alarm system (when possible) and notify PFA by calling 9-1-1 with the exact address and type of emergency. Signs of fire include visible smoke, flames, burning or smoke odor, odor of natural gas, etc.
- Notify occupants of the facility of the need to evacuate. If the alarm notification devices or public address system of the fire alarm system are still functional, manually activate the alarm system to assist with the evacuation.

Frequency of Inspections

Fire watch personnel shall complete a patrol of the entire facility every 30 minutes in the following situations:

- The building or facility has people sleeping
- The facility is an Institutional occupancy as defined by the Fire Code (hospital, nursing home, jail, etc.)
- The building or facility is an occupied Assembly occupancy (restaurant, bar, theater, arena, etc.)
- The building or facility is a High-Hazard (Group H) occupancy as defined by the Fire Code

Facilities that do not meet the requirements for a 30-minute patrol frequency should have a fire watch patrol every 60 minutes. The Fire Marshal or PFA representative is authorized to modify this frequency based on hazardous conditions

in the occupancy. If a facility cannot be completely patrolled by a fire watch person in the required time frame, additional personnel shall be assigned fire watch duties to ensure the entire facility is patrolled.

Cancellation of Fire Watch

It is the responsibility of the building/business owner to contact the Poudre Fire Authority when the fire protection systems are operational. Once PFA is notified and all fire protection systems are operational, fire watch can be discontinued.

To submit completed fire watch logs or for questions, Contact the Poudre Fire Authority Fire Prevention Bureau at (970)416-2891 or email at BureauServices@Poudre-fire.org

Failure to follow these fire watch procedures may result in a summons to court, requirement of a professional paid fire watch, or the premises being vacated.

I agree to perform the duties listed above as specified by the Poudre Fire Authority.

_____ _____

Signature of Responsible Party **Date**

Responsible Party Contact Information:

Name: _____

Phone: _____ Email Address: _____

Affected business/building address: _____

Poudre Fire Authority Representative_____

Date_____

FIRE WATCH LOG SHEET

NAME OF BUSINESS/BUILDING:	
BUSINESS/BUILDING ADDRESS:	
NAME OF IMPAIRMENT COORDINATOR:	
IMPAIRMENT COORDINATOR PHONE #:	
EXPECTED DURATION OF FIRE WATCH:	
PERSON CONDUCTING FIRE WATCH:	

DATE	TIME	INITIALS	ACTIONS
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