



## Office of Fire Prevention

### Fire Protection Impairment Program - Guidelines

Prepared by: Office of Fire Prevention

The probability of casualties and major structural damage increases when fire alarm and fire protection systems are impaired. The risk of damages and their severity increases the longer systems remain impaired. Therefore, it is necessary to minimize the duration and scope of any impairment. This document contains an effective management program used to minimize the risks associated with fire alarm and fire protection impairments.

### I. Scope:

This program provides instructions to authorized individuals who wish to request or modify the normal operation of the University's fire alarm and fire protection systems during demolition and/or construction, outages, maintenance, testing, and system impairments of buildings. This document does not include guidance for hot work activities.

### II. Definitions:

**Applicant** – An approved person who is either a Project Manager (PM) or Contractor who is filling out an impairment permit with the Office of Fire Prevention (OFP).

**Authorized Person** – FMC personnel or approved vendor by FMC who has specialized knowledge of fire alarm systems, fire extinguisher operation and has completed fire watch training. This person is permitted to initiate an impairment permit application to work on University fire alarm and fire protection systems.

**Central Monitoring Station** – Approved third party monitoring company (not ODUPD or central dispatch).

**Contractor** – A person or persons who is performing work under a contract and is managing construction activities, which require the modification of the University's fire alarm or fire protection system.

**Disabling Devices** - Disabling or “turning off” specific alarm initiating devices and/or signals by using the fire alarm control panel function keys, while allowing the rest of the alarm system to remain active.

**Disabling Panel** – Any panel alteration that prevents it from receiving inputs or communicating alarms. Disabling an entire panel is not permitted without OFP authorization.

**Emergency Impairment** - An unexpected system failure.

**Facilities Management & Construction (FMC)** - manages all fire protection systems service, inspections, and testing activities.

**Fire Alarm Panel Watch** – An authorized individual or individuals whose sole responsibility is to monitor the fire alarm panel for activation of a fire alarm signal(s).

**Fire Alarm System** - A system, or portion of a combination system consisting of devices (e.g., smoke and heat detectors) arranged to monitor and annunciate the status of a fire emergency and then to initiate the appropriate response to those signals.

**Fire Protection System** - Approved devices, equipment, and systems or combinations of systems used to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire, or any combination thereof.

**Fire Watch** - Designated person(s) whose sole responsibility is to look for fires within a designated area(s). Designated person(s) must follow established fire watch procedures.

**Housing and Residence Life (HRL)** - Runs all on-campus student residence halls.

**Impairment** - Any loss of the fire alarm system functionality. Examples of impairments include, but are not limited to:

- Pump testing
- Maintenance and repair
- Disconnecting, bypassing, or disabling signal circuits
- Deactivating alarm initiating devices
- System testing
- Emergencies
- Powering down the fire alarm control panel

**Impairment Permit** – A document issued by OFP to an authorized person. The permit provides permission to impair all or part of a fire alarm system.

**Project Manager (PM)** – University employee, typically from Design and Capital Construction managing the work or project requesting the system impairment.

**Proprietary Supervising Station Services** – University Police, specifically central dispatch.

**Record of Fire Alarm Device (logbook)** – A logbook used by an authorized person to document fire alarm system impairments and the type of work activities performed.

**Office of Fire Prevention (OFP)** - Manage, issue, and maintain permits.

**On Hold or On Hold for Testing** – A condition in which the communication between the fire alarm panel and Central Monitoring Station has been temporarily suspended; the start of a system impairment.

**Online** – A condition in which the communication between the fire alarm panel and Central Monitoring Station has been restored; the end of a system impairment.

**Outage** - A condition in which the power supply to the fire alarm panel or other fire alarm devices is not available, it has been bypassed or the signal circuit is disabled.

### **III. Roles and Responsibilities:**

Impairment notice signs shall be posted and removed by FMC project manager during all events when the fire alarm notification system will not be functional and immediately after impairment has been terminated.

#### ***Contractor***

- Notifies PM at least 48 hours in advance that work activities require a system impairment.
- Applies for an impairment permit online at <https://www.odu.edu/fireprevention> or in person from OFP (757-683-5166) at least 48 hours prior to starting work.
- Obtains a new impairment permit when the scope of work changes or to receive permit extensions. Permits are valid for one (1) day only, and will expire at the end of the business day unless specified by OFP. It is up to the discretion of OFP to issue permits on an individual basis prior to 48 hours' notice and extended permit period as necessary.
- Maintains a copy of the impairment permit at the work site and follows the requirements included on the document.
- Contacts ODUPD (757-683-4000 or 911) immediately in the event of a fire emergency.

#### ***Project Manager***

- Assists Contractors with the impairment permit process.
- Communicates the job details requiring fire alarm modification to OFP and FMC.
- Coordinates with FMC to assist and distribute to ODUPD & OFP announcement of impairment and shutdown.
- Identifies and communicates the process for fire watch activities when needed.
- Functions as the authorized person responsible for:
  1. Contacting ODUPD/OFP when the building or area is ready to be placed "on hold" and placed back "online,"
  2. Bringing fire systems back "online" when work is complete,
  3. Coordinates immediate response and repairs during emergency impairments, and
  4. Works with competent contractor or current fire protection system contractor to physically place devices, zones, or panel offline and then back online.

#### ***Facilities Management & Construction - Electrician***

- Work closely with PM, OFP, and ODUPD during impairment process.
- Function as authorized person to take systems off line for maintenance, inspections, and emergency repairs.
- Placing systems back on line.

#### ***Housing and Residence Life Staff***

- Work closely with PM, OFP, and ODUPD during impairment process.
- Works with competent contractor or current fire protection system contractor to physically place devices, zones, or panel offline and then back online.

- Follow impairment procedures and make notification to ODUPD, FMC, and OFP when taking fire protection systems offline and placing systems back online.
- Contact OFP to determine if fire watch needs to be put in place.

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- Issues the completed impairment permit to impairment permit requestor.
- Contacts ODUPD to confirm buildings “on hold” and back “online” status.
- Issues updated permit to ODUPD, as needed.
- Maintains expired permits electronically for a minimum of one (1) year.
- May issue permits on an individual basis prior to 48 hours’ notice.
- Can extend permit period as necessary.

### ***ODUPD Dispatch***

- Document buildings “on hold” and back “online.”
- **Places all buildings that have been placed “on hold” back “online” at the end of the business day (1600 hours/4:00 p.m.), unless otherwise noted.**

## **IV. Impairment**

In the majority of instances, construction dust is the primary trigger of false alarms through activation of a local smoke alarm. In lieu of disabling the smoke detector(s) and/or fire alarm system, alternate detection and notification systems are recommended. These alternate systems must be approved by the OFP before implementation.

If the fire alarm system needs to be impaired, the PM and/or Contractor must provide at least 48 hours notice to OFP and FMC. This advanced notice will allow for planning, coordination, and obtaining an impairment permit.

Only authorized personnel are permitted to impair a building fire alarm panel and fire protection system.

### **A. Planning for impairments**

During impairment planning, the PM and FMC will notify ODUPD and OFP of the project plan, which should include the scope and duration of the project, the extent of the required impairment, and the precautions put in place.

When the impairment duration will last longer than ten (10) hours within a 24-hour period:

- The PM will need to:
  - Evacuate the building or the portion of the building affected by the system impairment, or
  - Schedule an approved fire watch, and
  - Implement an approved program to eliminate potential ignition sources, and
  - Limit the amount of fuel contained within the affected area.

## **B. Initiating an impairment**

Impairment permits are obtained through the OFP website: [www.odu.edu/fireprevention](http://www.odu.edu/fireprevention). All permits are valid for one (1) day only, will include a unique tracking number, and will expire at the end of the day, unless:

- Requested and approved for an extension by OFP,
- The impairment is within an active construction site with an operational fire monitoring system, or
- FMC is requesting the permit for monthly testing purposes, in which case, the permit will be valid for one (1) week.

The completed permit and impairment details will be shared with ODUPD.

The appropriate impairment signage shall be posted at all of the affected building entrances and elevator lobbies, at a minimum of two (2) hours prior to the start of the job.

An authorized person (e.g., OFP) will update the ODUPD Dispatch impairment logbook with impairment information.

An Authorized Person (e.g., PM) will maintain oversight of the impaired building's fire alarm system and work with the Contractor to ensure appropriate procedures are followed throughout the impairment.

If the project plan or scope changes at any time during the project and the planned impairment is affected, the PM must coordinate with OFP and ODUPD to appropriately adjust the system impairment. An updated impairment permit must be obtained by the Contractor and OFP must share the updated information with ODUPD.

## **C. Terminating an impairment**

As soon as the impairment is no longer required, the authorized person will restore all fire alarm and fire protection systems to normal function. Once the system is functioning correctly, the PM, FMC, and/ or Contractor will notify ODUPD and OFP that the system has been restored.

Any posted signage and the impairment tag shall be removed. Notify ODUPD and OFP that the job is complete and the system has been restored.

PM will contact ODUPD dispatch and advise that the work has been completed.

ODUPD will document 1) the building/system is back "online" and 2) the name of the person who made the call.

## **V. Emergency Impairment**

In the event of an unexpected system failure where the fire alarm and/or protection system cannot notify the building occupants, FMC will notify OFP, ODUPD, and appropriate Contractor(s). Person responsible for the building will perform one of the following:

- Evacuate the building affected by the system impairment, or
- Have an authorized person function as an approved fire watch.

OFP will continue to retain the responsibility of notifying ODUPD of the impairment. If the emergency is anticipated to last longer than ten (10) hours in a 24-hour period OFP will notify Risk Management of the emergency. An impairment permit must be obtained as soon as possible. If the impairment occurs after normal business hours when OFP is closed, a permit shall be obtained the next business day.

## **VI. Building Impairment Notifications**

Impairment notifications to building occupants are required when there is a system outage for any length of time.

If the audio and visual fire alarm notification components are impaired and the building is equipped with a public address system, an announcement shall be made prior to and at the end of the impairment by the Contractor or designee. Signage shall be placed at all building entrance doors and elevator lobbies immediately. The announcement should notify building occupants of the impairment and may include the following as an example:

*May I have your attention; may I have your attention please? The fire alarm system for this building will be temporarily out of service. You will be notified in the event of an emergency. If you discover smoke or fire within your space, begin evacuating and contact ODUPD at 757-683-4000 or 911.*

Once the impairment is complete, the Contractor or designee shall remove all building signage. In buildings with a public address system an announcement shall be made informing building occupants that the fire alarm system is back in service. The announcement may include:

*May I have your attention; may I have your attention please? The fire alarm system for this building is now back in proper working order. Any future alarm activation will be due to a true fire emergency. In that event you must take immediate action and evacuate the building as quickly as possible.*

## **VII. References**

Specific codes referenced during the development of these program guidelines include:

- NFPA 25 for the Impairment of Sprinkler Systems
- NFPA 72 for the Impairment of the Fire Alarm System