

DUQUESNE UNIVERSITY

Fire Protection System Impairment Program (Red eTag Permit)

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TABLE OF CONTENTS

	Page
Purpose	1
Scope	1
Exceptions	2
Definitions	2
Responsibilities	2
Impairment Procedures (Before, During, After)	3
Outside Contractor(s) and Sub-Contractors	4
Unplanned Impairments	4
Training	4
Appendix A: Submitting the Red eTag Permit	5

PURPOSE

The purpose of this program is to properly manage risks when our fire protection systems are impaired. This program is to provide a safe environment in University buildings and on University premises when a fire protection system is taken out of service for maintenance, system testing, inspections, renovation, new construction or equipment failure. During this period of impairment, the risk of fire and property damage increases significantly.

The Occupational Safety and Health Administration (OSHA) and the National Fire Protection Association (NFPA) prohibit an impairment unless appropriate steps are taken to minimize fire hazard.

SCOPE

This program applies to all employees and contracted/sub-contracted personnel who perform or are authorized to perform any work which may require fire protection impairment at the University. All such work requires an approved Red eTag Permit on site signed by the Department or Project Supervisor responsible for the project. Departments requiring such work are responsible for ensuring that adequate controls and procedures are in place before impairment is initiated.

These procedures to manage the impairment are to be followed regardless of the reason or expected duration of the impairment.

Authorization for an impairment to take place on a fire system is limited to trained authorized campus employees only. These personnel will authorize, assure precautions are followed, and initiate proper communications within the guidelines of the Red eTag Permit procedures.

EXCEPTIONS

A fire protection system impairment permit will not be required for routine (monthly) maintenance and system inspections.

DEFINITIONS

Fire Protection System – includes sprinkler systems, standpipe and hose systems, underground piping and control valves, fire pumps, fire alarm systems, fire suppression systems, and special suppression systems (CO₂, clean agent, dry chemical, water spray).

Impairment – an impairment is defined as the removal from automatic service any fire suppression system or associated components that otherwise would automatically respond to discharge water or other fire control agent onto a fire without human intervention. This includes automatic fire pumps, public water supply and sprinkler control valves to building fire sprinkler systems and pumps as well as automatic discharging gaseous suppression systems present on campus.

RESPONSIBILITIES

Administration - Duquesne University has the overall responsibility for providing a place of employment free of recognized hazards and unsafe conditions, as well as complying with federal, state, and local standards and regulations.

The Deans, Directors or Department Heads - Have the overall responsibility of ensuring that all pertinent personnel are provided with the required equipment and resources to conduct safe fire impairment work operations. They must also ensure that safety equipment and training are made available to each worker involved in fire impairment operations.

Environmental Health and Safety (EH&S)- Has the responsibility of ensuring local, state, federal and insurance company compliance with the Fire Protection System Impairment Program and the responsibility for guidance and technical expertise needed to oversee the program. Responsibilities also include providing training for affected personnel.

Department Supervisor (whose employee(s) engage in fire impairment work) - Ensures that all aspects of this Program are implemented and hazards are controlled so not to present a hazardous exposure to University employees, students and visitors. It is also the responsibility of Department Supervisors to ensure the employee(s) designated to perform fire impairment work utilizes the necessary procedures and equipment to minimize that employee's own exposure to the fire hazards generated. Responsibility also includes ensuring that all equipment is maintained in a safe operational manner. They have the responsibility to issue Red eTag Permits and ensure the Permits are completed prior to start of work.

University Employee(s) (engaged in fire impairment work) -Are responsible for following this Program and implementing controls that will eliminate or greatly reduce the fire hazards generated by their work for the protection of themselves, University employees, students and visitors. Personnel using tools or equipment for fire impairment work are also responsible for ensuring that equipment is in proper working order, the work site is made fire safe prior to start of work, and the area is made fire safe prior to leaving the work area.

Fire Watch - Is responsible for ensuring that safe conditions are maintained during fire impairment operations and for reporting all fires that have developed regardless if it was extinguished or not. The fire watch has the authority to stop the fire impairment work operation if an unsafe condition develops.

Project Supervisor(s) for Outside Contractor(s) - Are responsible for ensuring outside contractors and sub-contractors involved in fire impairment work have and follow the provisions of this Program. Advise all outside contractors about flammable materials or hazardous conditions of which they may not be aware.

IMPAIRMENT PROCEDURES

Requirements before impairment:

The basic precautions *before* a fire protection system is impaired are:

- A. Plan to perform work when the facility is not in operation and/or shutdown any hazardous operations/processes, if possible.
- B. Have equipment, parts, personnel, etc. in place before impairing the fire protection system to minimize the duration of the impairment.
- C. Maintain suitable fire extinguishing equipment in a state of readiness for instant use. Such equipment may consist of pails of water, buckets of sand, hose or portable extinguishers depending upon the nature and quantity of the combustible material exposed.
- D. Establish a Fire Watch. Fire Watchers should have communications available with personnel/contractors impairing the system in the event a system can be promptly restored if a fire is detected.
- E. Have fire extinguishing equipment readily available. They must be familiar with the procedure for sounding an alarm in the event of a fire. They must watch for fires in all exposed areas and immediately activate an alarm if a fire is detected. Attempts to extinguish a fire only when obviously within the capacity of the equipment available.
- F. Inspection of the area by the Department Supervisor responsible for authorizing fire impairment work operations. They will designate precautions to be followed in granting authorization to proceed in the fire impairment work.
- G. Ensure that someone is available and prepared to restore the fire control system promptly in the event of a fire, if the system can be restored.
- H. Notifications to Public Safety (x6002) and submittal of the Red eTag Permit – submit electronic permit, through app or website.
 - On the submittal, you must copy the Facilities Management front desk (facilitiesmanagement@duq.edu) and Paula Sweitzer (sweitzerp@duq.edu).
 - You will receive a confirmation email from FM Global, with an attached Red Tag Permit.
 - Post the Red Tag Permit in the work area.
 - When the Fire Protection System has been restored, you must reply to the FM Global email (supply information of date restored, number of turns to open valve, and was a 2-in drain test performed).
 - For more information, see “Completing the Red eTag” section below.

Requirements during impairment (most susceptible to fire):

- A. Shutdown hazardous processes.
- B. Prohibit smoking.
- C. Prohibit all hot work. If hot work is required, discuss in advance with EHS.
- D. Have fire watches patrol the areas in which fire protection system is impaired.
- E. Continue work until impairment is removed.
- F. Issue and distribute a properly completed Red eTag Permit and display Permit in work area.

Requirements after impairment:

- A. Place Fire Protection Equipment back into automatic service.
- B. Conduct a 2-inch drain test at the sprinkler riser if the sprinkler system was impaired.
- C. Lock sprinkler control valve in the wide open position.

- D. Reset the alarm system.
- E. Notify Public Safety that the system has been restored to normal automatic operations.
- F. Complete Red eTag Permit by replying to the FM Global email (supply information of date restored, number of turns to open valve, and was a 2-in drain test performed).

OUTSIDE CONTRACTOR(S) & SUB-CONTRACTOR(S)

Project Supervisor(s) are responsible for ensuring outside contractors/sub-contractors involved in a fire impairment on University premises have authorized and equipped with an FM Global Red eTag Permit given access only to the equipment addressed by the issued permit.

- A. Outside contractors/sub-contractors are required to provide the appropriate length of fire watch for all fire protection system impairment operations.
- B. After completing the fire system work, maintenance, testing, or other function requiring impairment, the outside contractor/sub-contractors are responsible for ensuring that building alarms and fire detection and extinguishing systems are placed entirely back into full automatic operational before leaving the site. This would include doing main drain tests if anything is impaired regarding the fire pump or main system risers.

UNPLANNED IMPAIRMENTS

In the event that an unplanned fire protection system impairment occurs:

- A. Stabilize the situation and immediately follow the procedures listed above under “Requirements before Impairment”.
- B. Ensure that the sprinkler valves are opened immediately if a fire starts.
- C. Immediately send the sprinkler valve operator(s) to the Valve(s) controlling the fire area, **IF** it is safe to do so.

The valve operator’s job is to guard against premature shutting of the valve, unlock the valve and test it to ensure that the valve is open, stand near the valve during a fire and close it only on the fire chief’s instruction, stand near the valve after the fire until sprinklers have been replaced, and reopen the valve, conduct drain testing, and lock the valve open.

TRAINING

It is expected that any University employee that may need to authorize a fire protection system impairment has received training in the impairment management procedures using the FM Global Red Tag Permit. The EHS Department will train and consult with any employee, at the request of their supervisor, on the topic of personal and fire safety as it relates to fire protection system impairments.

All supervisors and employees involved in overseeing activities that may lead to a fire protection system impairment will also be trained on the provisions and guidelines of this Program and how to complete and distribute the Red eTag Permit and understand the precautions necessary to prevent a catastrophic fire event when automatic systems are out of service.

APPENDIX A – Red eTag Permit

Submitting a Red eTag Permit

- Use the FM Global App – “Red eTag” or FM Global website: <https://www.fmglobal.com/report-contact-page/report-an-impairment>.
- Fill in all required information – see Red eTag example below.
- “Copy to” field must include:
 - FM Front Desk facilitiesmanagment@duq.edu
 - Linda Mihalic mihalicl@duq.edu
 - Paula Sweitzer sweitzerp@duq.edu
- Click “Submit”
- Within a few minutes, you will receive an email from FM Global – keep this email for closing the Red eTag Permit.
- The actual Red eTag Permit will be attached to that email – post permit in the work area.
- Once impairment work is complete, reply to FM Global’s email answering the questions in the box:

When you have restored fire protection, please provide the following information.	
Actual Date Restored:	
Number of turns to open the valve (If applicable):	
Was a 2-inch (50 mm) drain test performed? (Yes/No):	

Example: Red eTag Permit

SUBMITTING AN IMPAIRMENT NOTIFICATION

* Denotes required field

LOCATION INFORMATION:

Name of Person Responsible* Supervisor's
Business Email Address* Name Supervisor's Email
(Only email allowed)

Copy To Miller55 and sweitzer
(Select with sensors. * 300 Y 10 2000)

FM Global Office* Cleveland

Index Number* 040052.46
(Enter "Unknown" if unavailable)

Client Name* Duquesne University
City* Pittsburgh
State/Province:
Country:
Phone Number* Your Phone Number

FIRE PROTECTION INFORMATION:

Type of Protection Sprinkler System

Valve Number/Equipment Identifier* Power Center #10, 11, 12
Area Protected* Floors X, Y, and Z
Sprinkler System

IMPAIRMENT INFORMATION:

Control Number: 85022110

Reason for Impairment* Renovating floors, moving heads

Number of Turns to Close: 24

Authorized By: Supervisor's Name
Fire Protection Equipment Operator: Preferred Fire Tech

Date Equipment Impaired* 29-Sep-2015
Date Equipment to be Restored: September 29, 2015

PRECAUTIONS TAKEN:

<input checked="" type="checkbox"/> Emergency Organization Notified	<input checked="" type="checkbox"/> Continuous Work Authorized
<input type="checkbox"/> Public Fire Department Notified	<input checked="" type="checkbox"/> Ongoing Patrol of Area
<input checked="" type="checkbox"/> Hazardous Operations Stopped	<input type="checkbox"/> Hydrant Connected to Sprinkler Riser
<input checked="" type="checkbox"/> Hot Work Prohibited	<input type="checkbox"/> Spare Sprinklers Available
<input checked="" type="checkbox"/> Smoking Restricted	<input type="checkbox"/> Fire Hose Laid Out
<input type="checkbox"/> Other: _____	

If you don't receive a confirmation email, please contact your local Customer Service Desk directly.

Back Submit

Callouts:

- Copy to: Dana Miller, Paula Sweitzer, and FM Front Desk
- This number is always 040052.46
- Choose from: Sprinkler System, Fire Pump, Special Protection, or Other
- Include Building Name
- Self-populated Field – this is your impairment number
- Include Title and Name – could be plumbers or contractors
- Check all precautions taken
- Submit