

FIRE PROTECTION IMPAIRMENT PROCEDURE

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.

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

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

References: 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

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 8:00 am A.M. to 5:00 P.M., excluding University approved holidays.

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

ROLES AND RESPONSIBILITIES

Impairment Coordinator: The International Fire Code (IFC) requires the assignment of an impairment coordinator. The impairment coordinator for Santa Clara University is someone from the EHS team or designated representative, such as RapidFire (RFS) Staff.

The Impairment Coordinator:

- ☐ authorizes the shutdown of the fire protection system (putting building on test)
- ☐ 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.

Santa Clara University-SCU 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.

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.

IMPAIRMENT PROGRAM REQUIREMENTS

When a fire protection system is impaired (i.e. taken out of service), EH&S, Campus Safety dispatch, shall be notified immediately and, where required, the building shall be monitored by an approved fire watch shall be provided for all projects requiring 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.

Heat and smoke detectors can inadvertently be activated during routine maintenance activities from dust, fumes, smoke, steam, etc. When a heat or smoke detector is activated, the building alarm sounds, building occupants will evacuate the building and a fire response from the Santa Clara Fire Department will occur.

The local evacuation and central station monitoring operate independently of one another, so even if a building is placed on test, an activation can still trigger an evacuation. If this happens, it is the

expectation that the local designated personnel investigate the cause and if necessary, call 911 to dispatch the fire department.

A false fire alarm has consequences:

1. Building occupants may become desensitized to a fire alarm and may ignore a valid fire alarm in the future.
2. False fire alarms may result in a monetary fine at the discretion of the Santa Clara Fire Department.
3. Business interruption due to unnecessary building evacuation.

The following options shall be followed by SCU University Operations employees and contractors to prevent a heat or smoke detector from being inadvertently activated during routine maintenance or construction activities such as, but not limited to, cutting/welding, grinding or other dust generation activity (*remember to follow SCU dust control measures when disturbing building surfaces*):

Option 1: When the work is confined to a small area and only has one detector at risk of being inadvertently activated, it may be covered using the following procedure:

- i. Use a one-gallon zip lock bag or other approved cover.
- ii. Write your name with a sharpie on the outside of the one-gallon zip lock bag.
- iii. Cut the bottom of the one-gallon zip lock bag and place over the detector(s). Use one inch masking tape to secure the one-gallon zip lock bag to the ceiling or the detector itself.
- iv. Leave the zip lock side of the one-gallon bag sealed during work that could cause activation.



- v. **A covered detector shall be uncovered at the end of the work shift by unzipping the zip lock end of the one-gallon bag.**
- vi. At the end of the project, the zip lock bag must be removed from the detector.
- vii. Tape only **is not** an approved cover for smoke detectors

Option 2: If full building impairment is required SCU Staff or Contractors shall follow this procedure:

1. 30 minutes prior to the start of work, Staff/Contractor shall call Campus Safety (408-554-4441) and notify that work is starting for the day
2. Campus Safety will call Central Station to notify that the building has been impaired.
 - a. If SCU Staff/Contractor is concerned about triggering local Horns/Strobes, they should discuss with EHS & SCU designated fire alarm systems contractor to evaluate bypassing those local alarms.
3. When required, work shall only commence once the designated Fire Watch is present and on-site
 - a. If the full building is impaired (on test and audibles bypassed), the Fire Watch **MUST** patrol the entire building

- b. Some buildings have zones or addressable points – please contact your project manager/supervisor and EHS to discuss the project and available options**
- 4. Once work is completed for the day, SCU Staff/Contractor **MUST** call Campus Safety again to advise that work is completed and shall remain on-site until confirmed.
 - a. SCU Staff/Contractor shall examine the Fire Alarm panel to confirm there are no active alarms prior to calling Campus Safety.
 - b. If a Fire Watch is present, they **MUST** patrol for 30 minutes after work for the day is complete – all Fire Watch logs must be retained and returned to EHS.

If you have any questions about how to protect the fire detection system to prevent false activations, contact EHS **before** proceeding with the work.