



UNIVERSITY SAFETY OFFICE

SUBJECT: Fire Protection System Impairment Procedure

I. PURPOSE

There are times when it is necessary to disable sprinkler, fire suppression and or fire alarm systems on campus. The probability of a fire or explosion causing major damage is increased whenever a system, alarm or device is impaired. The longer the protection is impaired the greater the probability becomes. Therefore, it is necessary to minimize the duration and scope of any impairment or provide for an alternate protection system. The purpose of the procedure is to provide guidance on when and how these systems and their components are to be disabled and re-enabled.

II. SCOPE

This procedure applies to all sprinkler systems, fire suppression systems and fire alarm systems and their components. This includes planned or emergency outages of the system or devices.

III. EXCEPTIONS

A Fire Protection System Impairment permit will not be required for routine maintenance and system inspections.

IV. DEFINITIONS

Fire Protection System – includes sprinkler system, standpipe systems, fire pumps, fire alarm systems, and fire suppression systems.

Impairment - An impairment of any fire protection system or equipment occurs when that protection system, alarm or detection device is removed from service either partially or completely

V. RESPONSIBILITIES

A. THE UNIVERSITY SAFETY OFFICE

It is the responsibility of the Safety Coordinator to develop and maintain this procedure and to train the appropriate personnel on how to use this procedure. All Fire Protection Impairment permits must be approved and signed by the Safety Coordinator before the system is disabled. In the absence of the Safety Coordinator the Director of Physical Plant shall sign the permit. The permit shall be kept for two years. The Safety Coordinator shall notify the local fire department when necessary.

B. SUPERVISORS

Supervisors are responsible for ensuring the employees they supervise follow this procedure.

C. EMPLOYEES

Employees shall follow this procedure whenever it is necessary to disable a fire protection system. The employee shall fill out the permit completely and have a permit signed by the Safety Coordinator before work begins.

VI. REQUIREMENTS

The Hot Work Permit System must be followed whenever there is welding, cutting, brazing or other spark producing work done inside a building. When hot work must be done inside a building with a fire alarm system, steps must be taken to ensure the fire alarm system is not activated by the hot work. If it is necessary to impair a fire protection system to prevent accidental activation, a Fire Protection Impairment tag must be completed. The Fire Protection Impairment tag shall be initiated by a craftsperson or project coordinator and signed by the Safety Coordinator before work begins.

The craftsman performing the hot work or the project coordinator shall make arrangements with the fire alarm technicians and to ensure the system is not activated.

Before the building's fire protection system is disabled, Work Control must be notified.

The Fire Protection System shall be enabled immediately upon completion of the work or before the end of the work day or before the craftsman leaves the jobsite.

Once the Fire Protection System is placed in service it shall be tested to ensure proper operation.

Fire alarm systems shall not be left disabled over night with out the written consent of the Safety Coordinator.

A protection system may become impaired for a number of reasons, such as maintenance, renovation, construction, equipment failure or just forgetting to activate the system or device. To assure that the impairment is properly handled the precautions shall be taken when possible:

- * Limit the number, scope and duration of impairments(s).
- * Notify public fire department at start and finish.
- * Shut down any hazardous processes.
- * Relocate combustibles away from the area.
- * Stop any hot work if possible to decrease the probability of a fire.
- * Supplement manual fire protection with extra extinguishers.
- * Provide a continuous fire watch.
- * Complete impairment work in a timely manner.
- * Restore protection system upon completion of work.
- * Verify, by testing, that the protection system is operational.
- * Start repairs on the impaired system as soon as the area is secured.
- * Isolate the area where the situation or condition is causing the impairment. If possible, keep the remaining protection system in service. This may require temporary connections (e.g., cross-feed of sprinkler systems by using 2 ½ inch hose and coupling) or bypassing the system.

- * All necessary parts and materials are available before work is started.

V. RESTORATION

After completing the work, it is important to assure that the fire protection has been properly restored. Eight steps are required to assure the protection has been restored. Each step shall be verified. Those steps are:

1. Open all valves that were secured during the impairment. Remove Fire Protection Equipment Out of Service Tags once valves are confirmed to be open. Verify that the system is properly lined up and valves are open by conducting a drain test. (Note: If during the test the pressure drops below normal, the system may have a restriction or a partially closed valve.)
2. Lock valves in their proper position.
3. Place all alarms or detection devices back into service.
4. Restore any fire protection equipment to “automatic” that was secured or placed in “manual.”
5. Verify that portable extinguishers are in place and are fully charged.
6. Notify the Work Control that the fire protection has been restored and that the alarms are back in service.
7. Return top portion of tag to the Safety Coordinator.