

SOUTHWESTERN

LAW SCHOOL Los Angeles, CA

Fire Protection Systems Impairment Policy

Administrative policy approved June 1, 2022. Effective immediately.

Revision history: Technical edits were made in July 2023.

Related policies: Hot Work Policy

Scheduled Review Date: August 2025 (Administrative Services Office)

A. Understanding the Risk

An impairment of any fire protection system or equipment occurs when that protection system, alarm, or detection device is partially or completely removed from service. Impairment includes planned or emergency outages of the system or devices. The probability of a fire or explosion causing major damage is increased exponentially whenever a system, alarm, or detection 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.

A protection system may become impaired for a number of reasons, including maintenance, renovation, construction, equipment failure, or forgetting to activate a system or device. To assure that the impairment is properly handled, Southwestern's emergency mitigation response requires the following:

1. Assigning the responsibility and authority to control the impairment to the Director of Facilities in an emergency. Other Southwestern facilities personnel or the Campus Security supervisor may have the authority to impair a system, but the overall responsibility of the impairment remains with the Director of Facilities.
2. Educating Southwestern personnel on basic precautions when a protection system or equipment is impaired.
3. Implementing the following pre-emergency procedures:
 - a. Planning the impairment outside of business hours, if possible.
 - b. Limiting the number, scope, and duration of impairment.
 - c. Ensuring that adequate alternative protections are maintained or put in place during a sprinkler impairment.
 - d. Notifying the public fire department at the start and finish of each impairment, when appropriate.

- e. Ensuring appropriate actions are taken to minimize the risk of fire during a sprinkler impairment, including shutting down any hazardous process.
- f. Relocating combustibles away from the area.
- g. Stopping any cutting and welding that would increase the probability of a fire occurrence.
- h. Supplementing manual fire protection with extra extinguishers.
- i. Providing a continuous fire watch.
- j. Completing impairment work in a timely manner.
- k. Restoring protection system upon completion of work.
- l. Verifying, by testing, that the protection system is operational.

B. Types of Sprinkler Impairments

There are three basic types of impairments: planned, emergency, and concealed. All impairments are dealt with similarly.

1. Improperly impaired system

An Improperly Impaired System (IIS) is an unknown impairment. It occurs when a fire protection system is accidentally left out of service or removed from service by an unauthorized person. An IIS is normally discovered during self-inspection, by security service, loss control survey, or by a sprinkler contractor.

2. Emergency impairment

An emergency impairment occurs when an unexpected event impairs the normal function of the fire protection system. A section of frozen sprinkler piping bursting, or a forklift truck damaging sprinkler piping are examples. Any emergency situation is normally associated with confusion and a sense of urgency. To help eliminate some confusion, the impairment handling procedures detailed in Section C below are located on employee bulletin boards in the Westmoreland basement staff lounge, Bullocks Wilshire Suite 250, and the Library Mezzanine break room.

3. Planned impairment

A planned impairment is a scheduled impairment. It is usually an improvement or modification to the present system. In these situations, the fire protection can be shut down in a controlled manner to cause the least impairment to protection systems. Examples include adding a new section of sprinkler piping or replacing old sprinklers.

C. Impairment Handling

For each of the three types of impairments, handling procedures will be similar:

1. 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.
2. Notify Security, the Director of Facilities, and the Chief Operating Officer that an impairment has occurred.

3. Secure any hazardous operation in the area where the protection system is impaired.

Properly "tag out" the impaired fire protection system or equipment with an AIG Global Property "Fire Protection Equipment Out of Service" tag (COM-CG-02-008). Prompt notification of an impairment is of significant benefit to Southwestern. Impairment calls to AIG Global Property are registered and communicated to the Account Engineer and to the provided Southwestern contact. AIG can answer questions and make suggestions on maintaining a safe facility while the impairment is being corrected. Notify AIG as follows:

 - a. AIG Global Property Impairment Hotline: (877) 705-7287
 - b. AIG Email: GlobalProperty.Impairment@aig.com
 - c. Provide the following information by phone or in email: your name; company name; telephone number; type of impairment; what system or equipment is impaired; estimated length of time the system/equipment is to be impaired; and the precautions established while the impairment is active.
4. Start repairs or perform work on the impaired system as soon as the area is secured. Continue to work on the impairment until it has been restored to service. Any welding or cutting required for the repair should be performed in a protected area and not in the area of the impairment.
5. Place additional portable extinguishers in the impaired area at accessible locations.
6. Notify the public fire department that an emergency impairment has occurred and that all or part of the protection system is out of service.
7. Notify the alarm company that an impairment has occurred and indicate if any of the alarms have been affected.

D. Restoration

After completing the work, eight steps are required to assure that the fire protection has been properly restored. Each step should be verified by the individual that authorized the impairment. These steps are:

1. Open all valves that were secured during the impairment. Remove the "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 2-inch drain test. If the pressure drops below normal during the test, the system may have a restriction or a partially closed valve.
2. Place all alarms or detection devices back into service.
3. Restore any fire protection equipment to "automatic" that was secured or placed in "manual".
4. Verify that portable extinguishers are in place and are fully charged.
5. Notify Security, Building Engineer, Director of Facilities, and the Chief Operation Officer that the fire protection system/equipment has been restored.

6. Notify the alarm service or central stations that the fire protection has been restored and that the alarms are back in service.
7. Notify the public fire department that the fire protection system is restored to service and all alarms have been activated.
8. Notify AIG Global Property that the system has been restored. See C.4. a-c above for AIG contact information.
9. Retain the bottom half of the "Fire Protection Equipment Out of Service Tag" for review with the next visiting loss control representative.

E. Support Material

The AIG Global Property "Fire Protection Equipment Out of Service Tag" tags can be obtained by contacting a Global Property Loss Control Consultant or by contacting AIG. See C.4.a-c above for AIG contact information. An example of the tag is shown on the following page.

The Fire Protection Resource Order Form (COM-CG-13-0012) can be used to order supplies.



Global Property - Loss Prevention Engineering
**FIRE PROTECTION
 EQUIPMENT
 OUT OF SERVICE**

Authorized By (Signature)	Date
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Tag No.
0000001

Tag No.
0000001

Impaired Equipment	Equipment Valve No.
Protecting	
Estimated Time of Repairs	Time / Date Removed from Service
Time / Date Returned to Service	Check List Completed <input type="checkbox"/> Yes <input type="checkbox"/> No
Time / Date Global Property Notified	Time / Date Plant Engineering Notified
Authorized By (Signature)	Date Signed

Impairment Checklist

- Inform Department Heads in building or area where fire protection is out of service
- Prohibit Smoking throughout the affected area
- Shut down hazardous processes
- Stop all cutting, welding and other hot work in affected area
- Maintain as many sprinklers in service as practical
- Supplement manual fire protection system with extra fire extinguishers
- Notify the Shift Supervisor, Plant Emergency Organization or plant Fire Brigade Chief
- Notify Alarm Service and Plant Security
- Notify the public Fire Department that fire protection is out of service
- Notify Global Property that fire protection is out of service

Email: GlobalProperty.Impairment@aig.com
Impairment Hotline: [+1 (817) 490-3255
[+1 (877) 705-7287 US/Canada

Work to be Accomplished

- Automatic Sprinkler System(s) – (heads, piping, valves, etc.):
- Fire Pump(s): _____
- Underground Main(s): _____
- Suction / Gravity Tank(s): _____
- Detection System(s): _____
- Alarm System(s): _____
- Fixed Systems(s) – (CO2, Halon, FM 200, Dry Chemical, etc):
- Other: _____

Work Completed: Restore the System(s) promptly:

- Open all required valves that had been closed
- Verify, by testing, that the protection system is operational
- Restore the alarm(s) and notify the alarm company
- Restore any fire protection equipment to 'automatic' that had been secured or placed in 'manual'
- Verify the fire extinguishers are in place and fully charged
- Notify plant supervisors that protection systems / equipment has been restored
- Notify the public fire department that the impairment is corrected and that the alarms are restored to service
- Notify Global Property that the fire protection system has been restored

Impairment Cleared & Protection Restored
 Signature of Manager _____ Date Signed _____

This permit does not purport to set forth all hazards nor to indicate that other hazards do not exist. By providing this permit, neither AIG nor any of its employees make any warranty, express or implied, concerning the use of this permit. Furthermore, neither AIG nor any of its employees shall be liable in any manner (other than liability that may be expressed in any policy of insurance that may be issued by the Company) for personal injury or property damage or loss of any kind arising from or connected with this permit. Form 683 (10/2010)