

FIRE PROTECTION EQUIPMENT IMPAIRMENT PROGRAM

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. This includes planned or emergency outages of the system or devices. The probability of a fire or explosion causing major damage is increased whenever a system, alarm or detection device is impaired. The longer the protection system 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, such as maintenance, renovation, construction, equipment failure or just forgetting to activate a system or device. To assure that the impairment is properly handled, management should have an impairment program implemented as an integral part of the plant's pre-emergency program. Such a program requires several basic steps:

1. Assign the responsibility and the authority to control the impairment to one individual. Typically, a plant engineer or fire protection and safety supervisor is designated. In an emergency, a shift supervisor or fire brigade chief may have the authority to impair a system, but the overall responsibility of the impairment remains with the assigned individual.
2. Educate plant personnel in basic precautions when a protection system or equipment is impaired.
3. Implement written procedures to be incorporated into the plant pre-emergency program. There are three forms of impairment: planned, emergency and Improperly Impaired Systems.
 - a. Limit the number, scope and duration of impairment(s).
 - b. Notify the public fire department at start and finish of each impairment.
 - c. Shut down any hazardous processes.
 - d. Relocate combustibles away from the area.
 - e. Stop any cutting and welding that would increase the probability of a fire occurrence.
 - f. Supplement manual fire protection with extra extinguishers.
 - g. Provide a continuous fire watch.
 - h. Complete impairment work in a timely manner.
 - i. Restore protection system upon completion of work.
 - j. Verify, by testing, that the protection system is operational.

Improperly Impaired System

An Improperly Impaired System 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 Improperly Impaired System is normally discovered during the plant's self-inspection, by a security service, or by a sprinkler contractor.

Improperly Impaired System can be prevented by:

1. Establishing procedures to be followed during an outage.
2. Assuring that the facilities fire protection inspection program is performed regularly, promptly and properly. This includes testing of alarms and detection devices. (See "Inspection and Testing of Fire Protection Systems" brochure Form 690.)
3. Locking all sprinkler control valves in the appropriate position.

If a protection system or device is found impaired, the condition should be immediately reported to the individual responsible for fire protection. This individual should:

1. Try to determine the reason for the condition.
2. Restore the fire protection system if possible.
3. Notify the:

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

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 is an example. Any emergency situation is normally associated with confusion and a sense of urgency. To help eliminate a major portion of the confusion, a written procedure should be in a location available to all personnel. The procedure should address the following:

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 2½ inch hose and coupling) or bypassing the system.

2. Notify the shift supervisor and the plant emergency organization or plant fire brigade chief that an impairment has occurred.
3. Secure any hazardous operation in the area where the protection system is impaired.
4. Properly “tag out” the impaired fire protection system or equipment with a Global Property “Fire Protection Equipment Out of Service” tag (Form 685). These tags can be obtained by contacting a Global Property Loss Control Consultant; or by calling the:

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5. Start repairs 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.
6. Place additional portable extinguishers in the impaired area at accessible locations.

Once the situation is under control and all hazardous conditions have been eliminated, the supervisor in charge should:

1. Notify the public fire department that an emergency impairment has occurred and that all or part of the protection system is out of service.
2. Notify the alarm company that an impairment has occurred and indicate if any of the alarms have been affected.
3. Notify AIG Global Property that an emergency impairment has occurred. (Refer to Impairment Notification Procedures below for details.)

Planned Impairment

A planned impairment is a scheduled impairment. It is usually an improvement or modification to the present system. Examples include adding a new section of sprinkler piping or replacing old sprinklers. The same considerations and procedures for emergency impairments should be followed for a planned impairment. However, the planned impairment should be organized, thereby reducing the probability of problems and

minimizing the time required for the impairment. If a contractor will be used to work on the protection system or equipment, the contractor should not be allowed to impair the system without authorization from plant personnel. In addition, the contractor should be required to follow the plant’s safety rules and requirements. This includes obtaining special hazard permits and authorization. Since the work is planned in advance, the schedule of the impairment can be worked out with the maintenance department and plant operation. This will assure that:

1. Hazardous processes will be secured prior to the protection system taken out of service.
2. Extra precautions have been taken in the area of impairment (see back of tag for some items to consider).
3. All necessary parts and materials are available before work is started.
4. Outside concerns such as the public fire department and alarm companies are notified in advance that the system will be out of service.
5. AIG Global Property has been notified 48 hours in advance. (Refer to Impairment Notification Procedures below for details).

IMPAIRMENT NOTIFICATION

When an emergency impairment occurs or when an Improperly Impaired System is found, immediately notify the:

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

1. Telephone Hours: 8:00 am to 5:00 pm EST
After hours please leave a message when prompted.
2. Provide the following information:
 - a. Your Name
 - b. Your Company Name
 - c. Telephone Number
 - d. Type of Impairment
 - e. What system or equipment is impaired
 - f. Whether the system is partially or completely impaired
 - g. An estimated length of time the system / equipment is to be impaired
 - h. The precautions established while the impairment is active

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 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" drain test. (Note: If during the test the pressure drops below normal, 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 the plant supervisors (shift, the plant emergency organization or plant fire brigade chief) 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:

AIG Global Property Impairment Hotline

Email: GlobalProperty.Impairment@aig.com

Telephone: [+] 1 (817) 490-3255

[+] 1 (877) 705-7287 US/Canada

NOTE: Retain the bottom half of the Fire Protection Equipment Out of Service Tag for review with the next visiting loss control representative.

Prompt notification of an impairment is of significant benefit to you and your company. Impairment calls to AIG Global Property are registered and communicated to the Account Engineer and to the provided company contact. They can answer questions and make suggestions as to how to maintain a safe facility while the impairment is being corrected. They are there to help you.



Bring on tomorrow



Impairment Tag: Front

Impairment Tag: Back



Global Property - Loss Prevention Engineering

FIRE PROTECTION EQUIPMENT OUT OF SERVICE

Authorized By (Signature)	Date
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Tag No.
0000001

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

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Tag No.
0000001

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

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 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 685 (10/2013)