

A Guide to Fire Protection Impairment

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Risk Solutions Impairments to fire protection and detection Technical Guidance

Fire protection systems, when properly managed and maintained, are critical to safeguarding facilities against catastrophic destruction. An impairment of any fire protection system can result in loss of life, property and the ability to serve customers. Impairment occurs when a system is taken out of service, either wholly or in part, regardless of whether it was planned or not. As such, it is essential to establish a program to minimize the duration and scope of impairments. The outline below provides a summary of key actions.

Before impairment

- Plan for an impairment by performing a detailed risk assessment and ensure local and nearby hazards can be protected, contained or eliminated
- Make sure you have the right materials and people on hand before the impairment begins to minimize the shut-down period
- Notify key people in Operations, Emergency Response Teams and the local Fire & Rescue Services (if appropriate) as well as your remote alarm monitoring station
- Notify QBE Global Risk Solutions 48 hours in advance
- For an emergency impairment, fully stabilize the situation and set up the precautions before notifying QBE.
- Hang the Out of Service Tags on equipment that is or will be impaired

Print the 'Out of Service Tag' at the end of this packet.

During impairment

- Keep a watchful eye for fire hazards arising in or close to the area where the fire control equipment is impaired
- Ensure employees and contractors know that the fire control is impaired and prevent them from performing unnecessary hazardous activities. Halt hazardous production processes and prohibit 'hot work' in the area
- Work on the job continuously until completed, if possible. If it must be left overnight, ensure Security patrol the area and other precautions are maintained

Restoration upon completion

- When the impaired fire control equipment is restored, inspect the area and witness a performance test or sprinkler alarm test to verify that it has been properly returned to service
- Re-lock valves open, reset control panels, inform your remote monitoring station
- Notify QBE that system(s) have been reinstated
- Remove the Out of Service Tags from functioning equipment



- Visit the site: <u>Risk Solutions Center</u>
- Call us: 888.560.2635
- Email us: <u>RSC@us.qbe.com</u>



Managing an Impairment

When a fire protection or detection system is shutdown, the ability to withstand and contain a fire is severely diminished. This is when your facility is most vulnerable to damage and disruption.

Adequate control of fire detection and protection systems is critical. Whether an impairment is planned or occurs accidentally, precaution must be taken to provide temporary protection, reduce hazards and ensure prompt restoration.

Ensure that all parties involved in fire protection are aware of impairment procedures and their responsibilities in minimizing risks during an impairment. Proper training is critical to ensure effective planning and supervision during the impairment period and thorough restoration when completed.

Notifying QBE

Please notify us 48 hours in advance of any planned impairment that is expected to exceed 10 hours. Notify us as soon as possible after an emergency or unplanned impairment. Email us at <u>RSC@us.qbe.com</u> and provide the following information:

- Primary company contact information
- Which system(s) are affected
- Partial or complete impairment
- Estimated length of impairment
- Precautions established while system(s) are impaired

Events causing an emergency impairment should be stabilized first. In such cases it is essential that the correct procedures be implemented as soon as possible after the incident.

- Attempt to isolate the area to limit potential for additional damage
- Notify management and implement emergency action if warranted
- Tag out the system and contact QBE Global Risk Solutions as indicated above
- Start repairs as soon as the area is secured
- Notify QBE when reinstatement is acheived

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Fire Protection Impairment Management Checklist

The risk of a significant fire loss is increased when fire protection systems or equipment are out of service (i.e., impaired). To minimize the risks associated with fire protection system impairments, a comprehensive impairment management program should be developed and implemented. This checklist can be used to verify that the key elements of an impairment management program have been implemented during an impairment.

 Type of System Impaired:

 Date of Impairment:

Area Impacted by the Impairment: _____

	Yes	No	N/A
Hazardous Operations in the Impaired Area			
Suspend or restrict non-critical cutting and welding.			
Halt spray painting and spray finishing operations.			
Restrict flammable liquid transfer and related operations.			
Eliminate heat-producing processes and sources.			
Eliminate hazardous operations that could cause a fire or increase the size of a fire.			
Notifications			
Notify the local fire department of the impairment and temporary protection established.			
Notify loss control/risk management personnel of the insurance carrier.			
Advise the facility management and emergency response team (ERT) of the impairment and control measures established.			
Advise alarm companies and signaling stations of the impairment.			
Advise impacted employees of the impairment and actions that they should take.			
Compartmentalization			
Close fire doors in the impaired area.			
Secure exterior doors to protect against hostile fires.			
Secure fire control dampers, curtains, and partitions in the impaired area.			
Temporary Fire Protection			
Establish alternate water supplies as required.			



	Yes	No	N/A	
Place charged hose lines in the impaired area.				
Distribute extra fire extinguishers, as needed, throughout the facility.				
Establish extra security or fire watch patrols.				
Assign personnel to transmit fire alarms to the occupants and the fire department.				
Assign personnel to reopen fire protection valves in case of a fire.				
Identification				
Attach a fire protection impairment tag to each impaired system and related control valves.				
Develop and post a repair timetable.				
After the Impairment (Restoration)				
Verify the system is operational.				
Restore all alarm services.				
Make notifications to all previously notified entities that the system is restored.				
Restore fire doors.				
Release temporary fire protection.				
Return to normal operations, including previously suspended processes.				

For additional information, contact QBE Risk Solutions at (888) 560-2635 or RSC@us.qbe.com.

Impairment Coordinator (Signature):	_	Date:	
Notified QBE of System Restoration: (Signature)	_ Date:	Time:	
System Restored (date):			

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Sprinkler System Impairment Tag

An important aspect of fire protection impairment management is a tag system, which is used to indicate that a system or piece of equipment has been removed from service. The following can be used as a fire protection impairment tag system. Impairment tags should be weather-resistant, and it is recommended that the tag be laminated or placed in a weatherproof pouch.

System Information

Tag should be posted at both the system valve and the appropriate fire department connection.

Fire Protection Sys	stem Impaired:			
Area or location pr	otected:			
Date:	and time of closure:	_Expected restoration date/tir	me:	/
Reason for Impairr	nent:			

Valve Information

Name of Person Closing Valve: ______ Valve to be repaired or replaced: Yes No

System Restoration

Valve Reopened on (Date/time): _____/

Reopened by _____

Upon restoration, the impairment tag should be removed and filed with the fire protection system maintenance logs.

Main Drain Test

Main drain testing should be performed to ensure that the system has been returned to pre-impairment conditions.

Static pressure: _____ Residual pressure: _____ Time required for a return to the static pressure: _____

- Any of the following conditions indicate possible obstructions to the sprinkler water supply that require further investigation:
 - □ Failure of the static pressure to return to the original reading within a short period of time (i.e., one minute).
 - □ A drop of ten percent in the residual pressure as compared to previous test.
 - An extended time required (i.e., more than one minute) for the discharge stream to stabilize during the main drain test.
 - □ A decrease in the static pressure either before or after the main drain test.

Test by: _____ Test Date: _____

To use the impairment tag, print, cut out and laminate or put in a weatherproof pouch before placing on a system or piece of equipment has been removed from service.



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