



IMPAIRMENTS TO FIRE PROTECTION SYSTEMS

RSVP Program (Restore Shut Valves Promptly)

INTRODUCTION

A protection impairment occurs when a fire (or explosion) prevention, protection, alarm or supervisory system is shut off, impaired or otherwise taken out of service completely or in part. The protective, alarm or supervisory function then cannot be met. Fire protection systems include sprinkler, water spray, carbon dioxide and clean agent systems. Two examples of protection impairments are: a valve supervisory device that is jammed and cannot function, and a sprinkler system that has been shut off in order to replace a sprinkler head. While process monitoring, control, safety and security-entry systems also serve protective functions, their impairment is not considered a protection impairment as defined herein.

While planned protection impairments may be necessary during maintenance, renovation and new construction, it must be understood that when any protection impairment occurs, the facility is in jeopardy. Many large losses might have remained small if the protection impairments had been properly managed. When an impairment is planned or occurs accidentally, precautionary measures are necessary to minimize the risk. These may include arranging temporary protection, reducing hazards and ensuring continual and speedy progress on restoration efforts.

At this moment, somewhere fire or explosion protective systems are impaired. Throughout industry, tens of thousands of impairments occur each year. In fact, several may occur at any one facility at any one time. Protection might be impaired for one of many reasons, such as maintenance, renovation, new construction, equipment failure, vandalism or malicious actions. Regardless of the reason, a facility is in jeopardy from fire that may start in an area covered by the impaired system.

There are three types of impairments: emergency; planned; and hidden. The likelihood of fire or explosion occurring while protection is impaired increases with the duration of the impairment. Thus, proper procedures must be followed to minimize the duration and scope of the planned and emergency impairments and to reduce the possibility of a hidden impairment.

POSITION

AXAXL and Unimutual recommend that Members implement an impairment management program in accordance with the Global Asset Protection Services (GAPS)RSVP (Restore Shut Valves Promptly) Program with these basic steps:

1. Assign responsibilities for impairment supervision;
2. Adopt a detailed system for supervision;
3. Educate appropriate personnel as to the importance of impairment handling and the facility's procedures.

The responsibilities may be assigned to one person such as the Emergency Coordinator or the Facilities Maintenance Supervisor. They may also be assigned to several people including but not limited to the Facilities Maintenance Supervisor or the Security Coordinator.

WHEN TO NOTIFY

All impairments may be notified by a member BUT ALL IMPAIRMENT THAT WILL OR ARE LIKELY TO EXCEED 8 HOURS OR A SHIFT MUST BE NOTIFIED using the Impairment Notification Form

DISCUSSION

An Emergency Impairment occurs when an unforeseen event partially or totally impairs the effectiveness of a fire or explosion protective system. A sudden break in sprinkler system piping is an example.

A Planned Impairment occurs when it is necessary to shut down a fire or explosion protective system for maintenance or modification. Shutting down a sprinkler system to add sprinklers is an example. While this may seem to be a straightforward operation, previous loss experience has shown that improperly handled planned impairments greatly increase the extent of a loss that occurs while the system is impaired.

A Hidden Impairment is not known to exist and is therefore the most serious type; e.g., a system shut down and inadvertently left out of service upon completion of work, a system shut down without proper notification, or a system maliciously shut down. Proper impairment notification and handling procedures can reduce the chance of experiencing this type of impairment. A good inspection program can reveal the hidden impairment, allowing prompt restoration of vital protective equipment.

The impairment supervision program is called RSVP (Restore Shut Valves Promptly).

Responsible personnel should be educated in properly implementing RSVP procedures **See Appendix 1**. This will help ensure that management will be aware of system impairments and will reduce the likelihood of a hidden impairment.

Appropriate personnel, in conjunction with GAPS, should take every practical step to:

- Limit the frequency, extent and duration of all impairments;
- Work continuously on impaired equipment until it is restored to service;
- Reduce the possibility of fire or explosion during the impairment by shutting down hazardous processes;
- Enhance surveillance and firefighting capability during the impairment;
- Restore all fire protection systems promptly after the impairment;
- Verify by appropriate test that all fire protection systems have been restored.

Appendix 1 – Impairment Handling Procedures

Specific procedures for handling emergency, planned, and hidden impairments include the following:

The Emergency Impairment

Immediately notify management and GAPS and initiate repairs promptly. Provide temporary protection, if possible. Work without interruption until the system is restored. Good pre-emergency planning includes having the telephone numbers of contractors who are equipped for, and willing to provide, emergency repairs on a continuous, round-the-clock basis. See GAP.1.7.0.

Personnel designated by management should:

- Notify the GAPS Impairment Centre. (Complete the notification form following the instructions in Appendix 2. The form will be automatically e-mailed to RSVP_APAC@axaxl.com and services@unimutual.com.au)
- Ensure that the protection, detection or notification system is clearly identified as being impaired.
- Inform department heads in the buildings or areas where protection is out of service. They should tour areas to identify and correct unsatisfactory housekeeping, storage or special hazard conditions.

For the duration of the emergency impairment, the following actions should be enforced:

- Shut down hazardous processes or maintenance operations such as cutting, welding and other hot work until protection is restored.
- Prohibit smoking throughout the affected area.
- Notify the staff member supervising the fire alarm system.
- Notify Facilities Management and or Security.
- Notify the fire brigade that protection is shut off so that they may act effectively if a fire occurs.
- Use emergency measures, such as temporary connections to hydrants or adjoining sprinkler systems, to keep as many sprinklers in service as possible.
- Station someone at the shut valve, if it is an excessive distance from the work area. This person should be ready to open the valve upon instruction from the person supervising the impairment.
- Expedite completion of the work. Work continuously from shift to shift until protection is restored.
- Make a continuous fire patrol throughout the affected area.
- Supplement manual firefighting facilities by the temporary addition of extra fire extinguishers and charged hose lines.
- If the scope of the impairment must be increased, immediately discuss the changes with GAPS.
- When work on the protective system is completed, reopen and seal all valves that have been shut or otherwise restore the protective system to service.

The Planned Impairment

In addition to implementing the actions listed for the emergency impairment, it is necessary to carefully plan each impairment when modifying or conducting maintenance on a fire protection system.

Management should **not allow outside contractors** to impair protection equipment by themselves because contractors are not responsible for safeguarding facility operations, minimizing impairment duration, and expediting work progress. Outside contractors cannot institute the type of extra

precautions that management can authorize, nor do they have the same interest in the property as the owner. Therefore, outside contractors must be effectively supervised by appropriate personnel.

Schedule work so that the impairment is of minimum duration. Be sure that all equipment and personnel are ready and that preparatory work is complete before the impairment begins. In the case of sprinkler system extension, install everything up to the point of final connection to the existing system. Then, close the sprinkler valve, make the new connection as quickly as possible, and restore the shut valve promptly. Schedule only one impairment at a time!

Planned Impairment procedures include:

- Notify the GAPS Impairment Centre at least 48 hours in advance of the impairment. (Complete the notification form following the instructions in Appendix 2. The form will be automatically e-mailed to RSVP_APAC@axaxl.com and services@unimutual.com.au).
- Keeping as much protection in service as practical for as long as possible.
- Laying out work and arranging in advance to have all workers, materials and tools ready when protection is shut off so that the job can be pushed vigorously to completion. In the case of major building renovations, restore the system to service at the end of each day's work.
- Using sectional valves where possible, rather than main valves, to reduce the number of shut-off sprinklers to a minimum and to take all possible advantage of multiple water supplies.
- Confirming, prior to starting the impairment, that the procedures listed under "The Emergency Impairment" will be followed.

When work on the fire protection system is completed, reopen and seal all valves that have been shut or otherwise restore the protective system to service in accordance with the procedures described in the RSVP booklet.

The Hidden Impairment

If personnel discover a hidden impairment during a fire protection or loss prevention inspection or at some other time, they should:

- Confirm that protection should be on.
- Restore protection immediately.
- Report the discovery to their supervisor.
- Attempt to learn the reason for the occurrence.
- Notify GAPS of the discovery.

Appendix 2 – Completing the Impairment Notification Form

For a copy of your Impairment Notification Form, tailored with your own identification number and campus/locations, please contact us on 02 9247 7333 or email service@unimutual.com.au

Step 1 Complete the Required Fields

- a. Type in the free text box the street address of the campus
- b. Type in the free text box the name of the person completing the impairment notification
- c. Type in the free text box the e-mail address of the person completing the impairment notification
- d. Type in the free text box the phone number of the person completing the impairment notification
- e. Select the location identification # from the drop-down menu – select the name of the relevant campus.

Do not fill in the AXA XL Impairment number

Step 2 Complete Details of the Impairment

- a. Select the “impairment type” from the drop-down menu
- b. Select the “impairment class” from the drop-down menu
- c. Select the “reason for shutdown” from the drop-down menu
- d. Type in the free text box describe the area in the building where the impairment is located.
- e. Type in the free text box the start date
- f. Type in the free text box the start time
- g. Type in the free text box the estimated restoration date
- h. Type in the free text box the estimated restoration time (time when the impairment will be restored)
- i. For major impairments select the check boxes which best describe the nature of the impairment (multiple boxes can be selected)

Step 3 Identify the Precautions Taken to Manage the Impairment

- a. Select the check boxes that correspond to the precautions taken to manage the impairment
- b. Multiple check boxes may be selected

Step 4 Notify the Restoration of the Impairment

- a. Type in the free text boxes the date and time of the impairment restoration
- b. Click on the SUBMIT button – which will automatically save a copy of the completed form to the nominated location on your computer and generate an email with the correct address to send the form.

Note: If an impairment date and time **is not notified to the GAPS impairment centre**, an e-mail will be sent from the centre to follow up the restoration of the impairment.