

Introduction

The control of shutdowns or impairments on fire protection and detection systems is critical. An operation is at its most vulnerable during times of impairment. Many large losses might have remained small if fire protection or detection systems had not been impaired. To minimise the risks during this vulnerable period, QBE recommends the adoption of a formal Impairment Handling procedure.

When an impairment is planned, or if it occurs accidentally, precautions must be taken to provide temporary protection, reduce hazards and ensure prompt reinstatement.

'Impairment Handling' Procedure

Documented procedures and instructions should be created based on the guidance below. A permit style form is an effective way of managing this process. It is acceptable to include the impairment control procedures as a supporting permit within a generic Permit to Work system.

Planned impairments typically occur when an inspection or test reveals the need for some repair work requiring full or partial shutdown, or system extensions have been installed and are being connected in. Note that momentary isolation of valves or zones for inspection or test does not constitute an impairment. However, test procedures should always be carried out to ensure the any valves have been properly re-opened or system zones re-connected.

This document provides general guidance only; the hazards of your operation may require additional precautions.

1. Impairment Authorisation

Establish a list of people who have the authority to allow a fire protection system to be shutdown. These personnel should be familiar with the day-to-day activities of the site and the potential business impact as a result of the impairment.



Note: Sprinkler/fire pump contractors should not be on that list. They may be familiar with the fire systems but not with the hazards of the operation or the potential business impacts.

2. Before an impairment

- All necessary preparation should be done before the impairment starts. This minimises the extent and duration of the shutdown.
- For sprinkler extensions, the impairment is only required for final connection of the new piping after all other work is finished.
- For maintenance of a fire pump, all parts for the job should be on site beforehand.
- For an impairment only affecting a small area that is expected to last more than four hours, this section should be blanked off so the unaffected parts of the system can be reinstated. Ensure controls are in place to remove all blanks before reinstatement i.e. 'count them in and count them out.'
- All necessary personnel on site should be informed of the impairment including, for example, Operations, Security, Maintenance, the Fire Team, the alarm monitoring company, QBE (see over) and, for a major impairment, the public Fire Brigade.

- A risk assessment should be done of the hazardous activities in the area where protection is isolated. For example, cutting/welding/grinding must be halted prior to the impairment and must not be restarted until after protection has been restored. In some cases production processes may have to be halted because they are too hazardous to continue whilst the protection is impaired.
- Consider implementing temporary protection measures to minimise the risks during the impairment period; for example, this may involve laying out fire hoses, increased fire extinguisher coverage, increased or constant security patrols through the affected area.

3. During the Impairment

Using a permit style form, identify the precautions that need to be taken during the impairment and any restriction of activities required within the impaired area.

If you discover that the impairment duration or extent will be greater than expected then the criteria for allowing the impairment should be revisited. This may require the systems to be reinstated and further works carried out before the impairment can go ahead.

It is advisable to use a tag system to indicate which valve / system is isolated. Presence of the tag is a visual reminder to all employees and will quickly identify which system requires reinstatement, especially in an emergency.

Note: *During an impairment, restrict activities such as cutting, welding, grinding, other sprinkler impairments, isolation of manual alarm systems, testing of fire protection systems. If Security staff are assigned to carry out patrols in the affected area, restrict other activities that might distract their attention away from the impaired area.*

4. On Completion of the Impairment

Document the procedure for reinstating the protection system and any tests required to confirm that systems are fully and correctly in service (e.g. main drain test, sprinkler alarm test). Notify the relevant people that the impairment is complete, including site personnel, the public Fire Brigade, the alarm monitoring company and QBE.

Emergency Impairments

Emergency impairments occur when, for example, sprinkler heads are opened during a fire, a sprinkler head begins to leak, an underground main bursts or fire alarm system develops a fault. In such cases, the procedure is the same as above except that the emergency situation should be contained before authorisation is obtained. An authorised person should review the impairment at the earliest opportunity to ensure proper procedures have been identified and are being followed.

Note: *Under no circumstances should site personnel isolate sprinkler protection in a fire situation. We recommend that the Fire Brigade is called before investigating the cause whenever sprinklers operate. This is to minimise the inherent delay of Fire Brigade arrival. The decision to isolate the system would then normally rest with Fire Brigade senior personnel.*

If unauthorised personnel take the decision to isolate sprinkler protection, it should be only done after a visual confirmation that it is required

In the event of the fire pump starting, the reason for the start should be thoroughly investigated. The fire pump should not be stopped or isolated until the reason/fault is identified or rectified. Under no circumstances should the pump be stopped during or after a fire, except on the instruction of the senior Fire Brigade personnel.

Impairment Notification

QBE requests that we are notified before planned impairments and as soon as practical after emergency impairments. QBE will track impairments and if necessary assist you to manage the impairment and the reinstatement.

An impairment notification form should be completed and e-mailed to:

impairments@uk.qbe.com

Once the impairment is complete, notification should be sent to the same e-mail address.

Guidance and Enquiries

For further guidance and general enquiries contact: RMProperty@uk.qbe.com