Brandon Fire & Emergency Services

BFES

Fire Protection/ Life Safety System Impairments Regulation "P5"

The following Regulation is in accordance with the City of Brandon's Fire Prevention By-Law #7200

Impairment - is any condition in which a Fire Protection/Life Safety System cannot fully perform its designed function – e.g. a sprinkler system with a closed supply valve, or a fire alarm system that is in a trouble condition. This document recognizes three kinds of impairment:

Planned Impairment:

- Any situation in which all or part of a fire system is intentionally turned off, deliberately activated for test or drill purposes, or otherwise temporarily rendered inoperable by those authorized to perform such an activity.

Emergency Impairment:

- Any unplanned fire system impairment. Emergency impairments may affect only one (or part of one) system or in rare instances, an entire base. For example, a water main break may interrupt water supply to a single building or an extended base-wide power outage or a base-wide loss of water supply may impair fire protection to the entire base.

Hidden Impairment:

- Any situation in which a fire system is found to be impaired, and the impairment is unknown to those authorized to impair that system. Hidden impairments may last for an extended time and are normally discovered and corrected during periodic inspections.

Planned System Impairment:

1. Permission shall be obtained from the fire service for every fire protection or life-safety system impairment. A fire inspector shall review all planned impairments such as those due to building renovation, planned water shutdowns, or electrical power outages. Fire safety plans for each building shall contain building-specific details for both planned and emergency system impairments.
2. For all impairments, the following procedure shall be followed:

   - Notify a fire inspector immediately. Inform the fire inspector of the specific portions of the systems impaired and the reason for the impairment. The fire inspector shall record the name of the technician and their contact information, the time the system is taken out of service and the expected time to return the system to full service shall be given. The fire inspector shall follow up with the technician if he does not receive notification by the return-to-service time given.

- Notify the building occupants. Typically this would involve notifying the building senior who will notify the building occupants. If the building has a general-paging public address system, this shall to be used to notify occupants.

- Affix signage. Post notices at all building entrances stating that the fire protection systems are out of service and that the alternative measures contained within the building fire safety plan shall be followed.

- Identify affected systems. Affected systems shall be prominently identified on the exterior of the fire alarm panel and annunciators, and at any affected valves. This is typically achieved by the use of a "NOT IN SERVICE" tag or notice. The tag or notice shall contain the contact information of the individual that impaired the system, the date and time the system was impaired, the reason for the impairment, and the expected date and time to return to service

- Minimize impairments. Only portions of a system that need to be worked upon shall be taken out of service. The entire system is not to be impaired unless there is no other alternative. It may take more time to isolate a particular portion of a system, but there is a significant and worthwhile value to life-safety and property protection in keeping in operation as much of a system as possible.

- Mitigating Measures. A fire watch is necessary throughout the impaired area. During hours where a building is occupied, this may be achieved either by the technician(s) in the area, or by the building occupants working in the area. During off-work hours, a dedicated fire watch shall be implemented where deemed necessary by the local senior firefighter.

Additional mitigating measures for multi-unit residential buildings. Outside of normal working hours, where a residential building fire protection system is impaired and it cannot be returned to full function, additional alternate measures shall be applied to ensure the safety of the sleeping occupants.

- System restoration procedures. Following the return of a system to full function, the system shall be tested as necessary to confirm that the impaired portion of the system is fully functional. For water based fire suppression systems, this shall include a full flow main drain test downstream of all supply valves that were closed and opened. For alarm panels, where wiring or circuit boards have been disconnected/reconnected, all possibly affected input and output circuits are to be tested for alarm and trouble function.

- Notification upon restoration of system to full service. Following the return of a system to full function, fire inspector and building occupants shall be notified. Notices and tags shall be removed and documentation shall be completed.

Emergency System Impairments:

- Even for an emergency impairment, all procedures for planned system impairments, as above, shall be followed, although in order to effectively deal with an emergency, the procedures may have to be implemented in a different order. For example, if a sprinkler pipe breaks, shutting the water control valve and silencing the fire alarm will normally

take highest priority. Before commencing any repairs, system impairment notice must still be posted at the fire alarm panel and at closed valves, and building occupants and fire service dispatch or fire inspectors must be notified that systems are out of service.

Hidden System Impairments:

- Every hidden system impairment, as defined above, shall be:

a) Immediately corrected if possible, or emergency system impairment procedures shall be implemented; and
b) Reported to the Authority Having Jurisdiction for investigation.