Bowling Green State University

Fire Protection System Impairment Program

Purpose:

The purpose of this program is to minimize the risk associated with an impaired fire protection system by establishing procedures to follow when the fire protection system is removed from service due to repair, alteration, power outage or malfunction.

Responsibility:

Campus Operations is responsible for implementation and management of the BGSU fire protection system impairment program. Any person installing, repairing, testing, or performing any other operation which may impair the fire protection system shall be responsible for the initiation and execution of approved fire system impairment and restoration procedures as outlined in the BGSU impairment program.

Definitions:

Fire Protection System – Approved devices, equipment and systems or combinations of systems used to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire or any combination thereof.

Fire Watch – A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department.

Hot Work - Hot work is any work involving burning, welding, or similar operations that are capable of initiating fires or explosions, including:

- Welding and Allied Processes
- Heat Treating
- Grinding
- Thawing Pipe
- Powder-Driven Fasteners
- Hot Riveting
- Soldering
- Similar Application Producing a Spark, Flame or Heat

Impairment – Interruption or shut down of the fire protection system, in whole or part.

Impairment Procedure:

1. **Minor Impairment**
   Fire protection system impairments are considered minor when service interruptions, testing, routine maintenance, and repairs are limited in duration to a maximum of 8 hours and do not pose a significant risk for loss of life and property. The impairment form is not required to be submitted for minor impairments. Interruptions affecting water supply, hood suppression agents, and major components critical to the operation the fire protection system are not classified as minor and must follow the applicable impairment protocol.

2. **Emergency Impairment**
   An emergency impairment occurs when an unexpected event interrupts the normal function of the fire protection system. In the event of an emergency impairment, all personnel and contractors must take the following actions:

- Isolate the impairment area. If possible, allow the remaining fire protection system to stay in service, even if requiring a bypass or temporary connection.
- Call BGSU Campus Operations (419-372-7647) to inform that an impairment has occurred.
- Secure any hazardous operation in the area where the fire protection system is impaired.
- Properly tag out the impaired fire protection system or equipment.
- The tag shall be posted at each fire department connection, system control valve, fire alarm control unit, fire alarm annunciator and fire command center, indicating which system, or part thereof, has been removed from service.
- Activate fire watch.
- Initiate repairs once the area is secured and continue making repairs until service has been completely restored.
- Be aware of the closest available portable fire extinguisher, which can be found throughout the building.

Once the situation is under control and all hazardous conditions have been eliminated, Campus Operations will notify the following that a fire protection system impairment has occurred:

- BGSU Police Department
- BG Fire Department
- Alarm Company (if applicable)
- BGSU Environmental Health and Safety

BGSU Environmental Health and Safety will notify the property insurance carrier as required that a fire protection system impairment has occurred.

3. **Planned Impairment**

   A planned impairment is scheduled in advance and is typically used for making improvements or alterations to existing fire protection systems. All planned fire protection system impairments shall be submitted to Campus Operations at least 48 hours prior to the work being performed. The same procedures used for an emergency impairment should be followed for a planned impairment. Additional preparation should take place beforehand to ensure that the work area is free from hazards, proper notifications are made, and all replacement parts, materials, and permits are obtained before the work begins. If repairs to the impaired system require hot work to be conducted in a permit required area, please refer to the BGSU hot work program for further guidance.

4. **Improper Impairment**

   An improper impairment occurs when a fire protection system is unknowingly impaired, left out of service or removed from service by unauthorized personnel. Improper impairments are typically identified by contractors, fire officials, or individuals working with fire protection systems. If an improper impairment is discovered, please notify BGSU Campus Operations immediately so arrangements can be made to restore service. The same procedures used for an emergency impairment should be followed for an improper impairment.

Restoration Procedure:

After completing the work to repair the impaired system, the following steps must be taken to ensure that the fire protection system has been properly restored:

- Open all valves that were secured during the impairment and remove "out-of-service" tags. Conduct a 2" drain test to verify that the system is properly aligned and the valves are open.
- Place all alarms or detection devices back in service.
- Set all fire protection equipment to "automatic" if secured or placed in "manual".
- Verify that portable fire extinguishers are in their designated location and fully charged.

- Notify Campus Operations that the fire protection system has been restored.
- Campus Operations will notify the following that the fire protection system has been restored:
  - BGSU Police Department
  - BG Fire Department
  - Alarm Company (if applicable)
  - BGSU Environmental Health and Safety
- BGSU Environmental Health and Safety will notify the property insurance carrier that the system has been restored as required.
- Campus Operations will retain the out-of-service tag on file for 1 year for review.

Fire Watch:

A fire watch is a manual system of fire detection, performed by individuals looking for fire hazards when the mechanical fire alarm system has malfunctioned. This watch is to be activated whenever it has been established that a building fire alarm system is either out of service or severely deficient in functionality and poses a serious risk to person(s) or property in any occupied or unoccupied structure. Bowling Green Fire Division is to be notified any time a fire protection system is compromised or taken off-line.

To activate a fire watch, call Campus Operations (419-372-7647) and inform them of the exact nature of the problem and request that a Fire Watch be authorized. If after hours, requests can be made to the BGSU Police Department (419-372-2346). A fire watch may be authorized once a representative from Campus Operations, BGSU Police, or the Bowling Green Fire Division have determined that a watch is essential. Once a fire watch has been initiated, it shall remain in effect until such time that an authorized representative cancels the watch.

A fire watch can be cancelled only after the alarm deficiencies have been repaired. Once it has been determined by a trained fire alarm technician that the system is fully functional, Campus Operations or their designees will contact the Bowling Green Fire Division and request an ALL CLEAR for the fire watch. At that time the Bowling Green Fire Division will determine whether to declare an ALL CLEAR or continue the watch.

Fire Watch Duties:

The Fire Watcher's function is to report any fire safety concerns to the BGSU Police (419-372-2346) and, if necessary, conduct a building evacuation. Individuals performing the manual fire watch are to:

- Patrol all floors and public areas of the building
- Immediately call 911 if any fire, strong odor of smoke, or visible smoke is observed.
- If the building's fire alarm strobe horns are functional, activate the nearest manual fire alarm pull station.
- If the building's fire alarm strobe horns are not functional, Campus Operations will issue portable hand horns, and if needed, should be activated until all occupants have exited the building.
- Inform BGSU Police and Bowling Green Fire Division of any locations of occupants that have not yet been notified.
- Report any suspicious behaviors, circumstances, extinguished fires, burn marks, etc. to the BGSU Police immediately.

In residential facilities, it is the responsibility of the building staff to start and temporarily maintain the fire watch. Once a full assessment of the situation can be arranged, expectantly within 4 hours, additional staff may be contacted to perform the fire watch.

Training:

Training must be provided to all responsible parties on:

- The inherent risks involved;

- The emergency procedures in the event of a fire;
- The use of a portable fire extinguisher if performing hot work or providing a fire watch; and
- The provisions of this program.

Impairment Quick Reference Guide:

BGSU Campus Operations

• Notify of fire protection system impairments:
 	
    BGSU Police Department
 	
    BG Fire Department
 	
    Alarm Company (if applicable)
 	
    BGSU Environmental Health and Safety
 	
• Properly tag out impaired systems or equipment
 	
• Activate Fire Watch in conjunction with BGSU PD and BGFD
 	
• Coordinate fire protection system repairs
 	
• Ensure repaired systems and alarms are properly reactivated
 	
• Cancel Fire Watch in conjunction with BGSU PD and BGFD
 	
• Retain out-of-service tag on file for 1 year for review

BGSU Environmental Health and Safety
• Notify insurer of impairment as required • Coordinate fire extinguisher training as needed • Maintain BGSU Fire Protection System Impairment Program