Chapter 12: Fire and Life Safety

Fire Protection System Impairment Procedures

1 Purpose

The purpose of these procedures is to minimize the downtime of active fire protection systems by closely controlling their impairment (any condition in which a fire protection system cannot perform its designed fire safety function). They cover planned, emergency, and hidden impairments to active fire protection systems, including fire water distribution systems, fire water supply systems, sprinkler systems, other fire suppression systems, building fire alarm control panels, and listed smoke management systems. They apply to workers, supervisors, and area and building managers requesting or carrying out impairments, and the SLAC fire marshal, Facilities and Operations, and SLAC Site Security.

2 Procedures

In general, any worker with cause may request, through the Facilities and Operations Division, a planned fire alarm or detection system impairment. (Subcontractors must submit requests through their field construction manager). Only Facilities may impair or restore active fire suppression systems.

2.1 Individual Smoke Detector Impairment Procedure

Individual smoke detectors may be impaired for 12 hours or less by simply initiating a Facilities service request, with a minimum 24-hour notice, by using the Facilities Service Request System or calling ext. 8901.

2.2 Planned Impairment Procedure

A planned impairment is any situation in which all or part of an active fire system is turned off, deliberately activated for test or drill purposes, or otherwise temporarily rendered inoperable by the group authorized to perform such an activity for a period of time exceeding one hour.

<table>
<thead>
<tr>
<th>Step</th>
<th>Person</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Requester</td>
<td>Initiates Facilities service request, with a minimum 24-hour notice, by using the Facilities Service Request System or calling ext. 8901</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All requests must contain the word “fire” within the request to ensure it receives proper attention.</td>
</tr>
<tr>
<td>2.</td>
<td>Facilities Service Desk</td>
<td>Generates service request documentation and notifies the impairment coordinator, SLAC fire technicians, SLAC Site Security, Accelerator Control Room, and affected area or building manager(s)</td>
</tr>
</tbody>
</table>
2.3 Emergency Impairment

An emergency impairment is any situation in which an accident creates unintentional fire system impairment. Emergency impairments may affect only one system or in rare instances the entire site (for example, an extended site-wide power outage or a site-wide loss of water supply).

2.3.1 Emergency Impairment Procedure, Working Hours

The procedure is the same as for planned impairments, except that no advance notice is made, and the service request documentation is generated after the emergency is under control.

2.3.2 Emergency Impairment Procedure, Off-hours

This is the general procedure to follow in an off-hours emergency. The exact steps may vary depending on circumstances.

<table>
<thead>
<tr>
<th>Step</th>
<th>Person</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Requester (person identifying a facilities incident, for example, a burst water pipe)</td>
<td>Calls SLAC Site Security (ext. 5555)</td>
</tr>
<tr>
<td>2.</td>
<td>SLAC Site Security</td>
<td>Requests details and dispatches a rover to evaluate situation</td>
</tr>
<tr>
<td>3.</td>
<td>SLAC Site Security rover</td>
<td>Contacts main gate</td>
</tr>
</tbody>
</table>
### Step Person | Action
--- | ---
4. | SLAC Site Security Sector Gate | Main gate uses dedicated operations radio channel to contact Facilities to respond to incident
5. | Facilities | Determines response group(s) based on type of failure: the Mechanical Utilities Group handles the domestic water system, the Fire Systems Technician Group fire alarm and fire suppression systems and the impairment of non-water-based suppression systems. In some cases, both groups will be involved.
6. | Facilities | Identifies impairment and verbally notifies group lead, who contacts the impairment coordinator
7. | Impairment coordinator | Notifies SLAC duty officers, BASO and fire department
8. | SLAC Site Security | Notifies affected area/building manager
9. | Area / building manager | Coordinates with occupants
10. | Facilities | Performs and tracks impairment work
11. | Facilities | Files a service request with the Facilities Service Desk and writes a report in the operations logbook. Once the need for the impairment is complete, notifies Facilities Service Desk and the appropriate technician brings the fire system back on-line and updates the service request to “completed”.
12. | Facilities Service Desk | Notifies the impairment coordinator, SLAC Site Security, Accelerator Control Room, and affected area or building manager(s) of completion
13. | Impairment coordinator | Notifies SLAC duty officers, fire department, and DOE Bay Area Site Office of completion

### 2.4 Reporting Hidden Impairments

A *hidden impairment* is any situation in which a fire system is found to be impaired, and the impairment is unknown to the group authorized to impair that system. Upon discovery, the person finding the impairment reports it through the Facilities Service Desk, which treats the request as an emergency impairment.

### 3 Forms

The following forms and systems are required by this procedure:

- **firesystem-impair listserv**: Listserv required for notifying SLAC duty officers, fire department, and DOE Bay Area Site Office of impairments to water-based systems
- **Facilities and Operations Project and Work Request System**: System for requesting services from Facilities
4 Recordkeeping

The following recordkeeping requirements apply for this procedure:

- The SLAC fire marshal, as impairment coordinator, maintains the record of all impairments.

5 References

[SLAC Environment, Safety, and Health Manual](SLAC-I-720-0A29Z-001) (SLAC-I-720-0A29Z-001)

- Chapter 12, “Fire and Life Safety”
  - [Fire and Life Safety: Fire Protection Equipment Requirements](SLAC-I-730-0A12S-004) (SLAC-I-730-0A12S-004)
  - [Fire Protection Resource Site (FireFacts)](SharePoint) (SharePoint)