Fire Prevention Series

Fire Alarm Standards

General

1. These requirements along with the requirements contained in the 2010 edition of NFPA 72 shall apply to fire alarm systems that are required by the Lynnwood Municipal Code, International Fire or Building Code, or any other applicable code. Whenever a conflict exists between NFPA 72 or other code(s), these Standards shall prevail.

2. All monitored fire alarm systems shall be continuously supervised and monitored for alarm, supervisory and trouble conditions by a UL-listed, City-approved Central Station.

3. Fire alarm systems shall be installed and maintained only by trained and qualified fire alarm technicians. All technicians shall be licensed by the State of Washington. All alarm companies and Central Stations shall have a current City of Lynnwood Business License.

4. Each initiation device shall report to the FACP independently via a separate zone (IDC) on conventional systems or by individual address (SLC) on addressable systems.

5. There shall be no more than one FACP or be monitored by more than one Central Station per building without the written approval of the Fire Marshal.

6. The Central Station monitoring the fire alarm system shall advise the Fire Marshal, in writing, of any disconnection of monitoring a minimum of 10 days prior to the cancelation. Systems out of service for 24 hours shall be reported to the Fire Marshal in writing.

7. All fire alarm system communicators shall be supervised by the FACP.

Installation

1. Rate of rise heat detectors shall be used in all locations, except where they would initiate false alarms. In these instances, fixed temperature detectors or other devices may be approved.

2. Notification Appliance Circuits shall be wired with a minimum of 14 AWG wire and limited to a maximum of 10% voltage drop per circuit.

3. The installation/upgrade of a fire alarm control panel shall require all fire alarm components to meet current Fire Alarm Standards. Exception: A FACP replacement of the same make and model as the existing panel will be considered as a repair.

4. All fire alarm components shall be UL listed for their intended use. No one shall perform any modifications which would void the UL listing.

5. Notification devices shall be installed in existing buildings/suites as to provide audibility and/or visibility as required per NFPA 72 at the time of a tenant improvement, FACP installation/replacement/upgrade, or a change of occupancy/use. In addition, one A/V device shall be installed on the exterior of the building facing fire department arrival.

6. Heat detectors shall be installed in all rooms, hallways, stairwells, and other accessible areas. EXCEPTION: Small closets with louvered doors and bathrooms with showers/bath tubs.

7. Heat detectors shall be installed at the top of any shaft, which is closed at its upper end.

8. Smoke detectors and heat detectors (shunt trip) shall be installed at the top of elevator shafts and in elevator machine rooms. Shunt trip heat detectors shall be supervised by the FACP for integrity.
9. A manual pull station shall be installed next to the FACP. Other location(s) must be approved by the Fire Marshal.

10. A minimum of 24-hours of secondary power shall be provided for all fire alarm control panels, NAC power supplies, transmitters, communicators, etc.

11. The means of communication between the FACP and Central Station shall be approved by the Fire Marshal and be serviceable by the fire alarm technician.

12. Fire alarm control panels and appropriate peripherals shall meet the requirements in the 9th edition of UL864 Standards with the exception that any panel that has the capability to connect security system devices shall not be allowed.

13. Pre-existing, non-conforming combination fire/security panels may remain in service providing they continue to operate properly, however no additional initiation devices are allowed to be added.

14. Single station residential smoke detectors shall not be connected to the fire alarm system.

15. Duct smoke detectors shall be connected to the FACP and report as a supervisory signal.

16. All FACPs shall be installed inside the fire sprinkler riser room. If the building does not have a riser room, the FACP may be located in an electrical room provided with direct exterior access. A sign stating "Fire Alarm" or "Fire Alarm Control" shall be affixed to the outside of the door.

17. If the building does not have a fire sprinkler riser room or an electrical room; the FACP may be installed in a common, accessible interior location as approved by the Fire Marshal. This installation requires a remote annunciator with silence, reset, and zone identification functions.

18. A building without a fire sprinkler riser room, electrical room, or common interior accessible area shall have the FACP mounted on the exterior of the building in a location approved by the Fire Marshal.

19. Any FACP, remote power supply, or communicator mounted on the exterior of a building shall be installed in a key-lockable, NEMA 4X enclosure equipped with a heater and smoke detector. The enclosure shall be able to be opened without the use of any tools.

20. Remote annunciators mounted on the front exterior of a building shall be installed in a clear, heated, key-lockable, NEMA 4X enclosure.

21. A Supra key box purchased from the City is required to access the FACP or remote annunciator.

22. Fire Alarm Control Panels shall be located so as to be readily accessible to fire department personnel. All reset procedures shall meet the approval of the Fire Marshal.

**Testing and Maintenance**

1. Upon completion of a new or modified fire alarm system, it shall be pre-tested by the installing technician and an acceptance test shall be performed in the presence of the Fire Marshal. The request for the acceptance test shall be made via the city’s permit request phone number within 24-hours after the completion of the work.

2. All fire alarm systems shall be tested and maintained as per NFPA 72. Annual Confidence Tests shall be performed by a state-licensed electrician. Beginning September 1, 2010, it shall be the responsibility of the building owner to ensure their contracted fire alarm service company submits all fire alarm confidence test reports to [http://www.tegrisinc.com](http://www.tegrisinc.com) for review.

3. Maintenance and repair are the responsibility of the building owner. Fire alarm systems shall be kept operational at all times. Trouble conditions shall be corrected within 24 hours.

4. On monitored fire alarm systems, all trouble conditions shall be reported to the Fire Marshal within 24 hours. Notification shall be in writing and shall be the responsibility of the Central Station.