



FIRE ALARM SYSTEM REQUIREMENTS

A fire inspection permit is required for the installation, alteration, modification, or repairs of any fire alarm system, and shall comply with the following requirements:

General Information:

- A. All systems shall be designed and installed in accordance with the Minnesota State Fire Code and NFPA 72 standards.
- B. All system components must be listed by Underwriters laboratory (UL) and installed in accordance with their listing.
- C. A pull station with an approved cover and an audio visual notification device are required in approved locations in sprinkled buildings.
- D. NFPA inspection/test, record of completion forms, and a UL Certificate are required at the final inspection.
- E. The system must be monitored by an approved UL central station with a UL Certificate on the system.
- F. A UL Certificate must be posted in an approved location.

Submittal Requirements:

- A. A properly signed and completed permit application form.
- B. A minimum of two sets of detailed digital plans drawn to scale, documenting locations of all devices.
- C. Manufacturer's specifications on alarm panel(s) and all devices.
- D. Description of zones and how they will be listed.
- E. Back up battery calculations.

Permit Issuance:

- A. Plan review and permit issuance normally require 10 business days from receipt of a complete application submittal. Applicants will be contacted with the permit fee amount when the permit and plans are made ready for issuance. The permit and plans must be paid for and obtained at our cashier's office, unless you are an approved invoice contractor with the City.
- B. The stamped, approved plan and the Inspection Record Card shall be kept on the job site until final inspection approval has been made.
- C. No work shall commence prior to issuance of a fire alarm system, unless specifically approved by the Fire Inspector.

Monitoring / Annunciation:

- A. The system panel and approved 11" x 17" system map and building floor plan are required in an approved location.
An approved key activated annunciator and 11" x 17" system map and building floor plan are required in an approved location at the building entrance if the panel is in another location.
- B. Devices designed to initial a specific function or action (duct smoke detection, elevator recall, and door hold open detectors) shall be monitored only for supervision.
- C. Low pressure and low temperature alarms on fire sprinkler systems shall be monitored by the fire alarm system.

- D. Separate alarm zones and signals on the panel, annunciator and at the central station are required.
- E. All fire protection systems, i.e. sprinkler, FM 200, kitchen hood, must interface with the system as separate alarm zones and signals.
- F. All fire sprinkler system control valves including the PIV must be tampered and supervised on the system.

System Components and Hardware:

- A. Monitoring must comply with NFPA 72, including panel requirement for audible trouble signals and must have two means of signal transmission.
- B. Remote visual alarm indicating devices with labels are required on the ceiling or wall directly below duct detectors that are not visible from the floor.
- C. An approved cover is required on all pull stations.
- D. The system AC power supply circuit breaker must be labeled and red in color.
- E. All devices on addressable systems shall be labeled to coincide with the annunciator panel.
- F. All indicating sprinkler control valves must be secured and electronically supervised.
- G. An approved "Fire Alarm Panel" sign is required on the door access to the room where the panel is located.
- H. An approved 11" x 17" system plan and building floor plan is required at the panel and annunciator locations.
- I. Smoke damper detector locations in accordance with State Building Code provisions.
- J. Zoning shall be approved by the Fire Inspector.

Inspections Required:

Call **218-454-5109** between 8:00 a.m. to 4:30 p.m. to arrange for an inspection. Please provide the permit number with your request. **Allow 24 hours for all inspections.**

- A. The system must be 100% tested prior to calling for inspection. If an acceptance test of a system fails, a re-inspection must be scheduled.
- B. All devices will be tested for proper operation. Smoke detectors, heat detectors, pull stations, etc.
- C. All sprinkler control valves shall be tested.
- D. Test all horns and strobes. The decibel level and light intensity must be set correctly and synchronized.
- E. Test primary and secondary phone lines.
- F. A 24 hour AC power loss test is required.
- G. Magnetic door devices release, doors close and latch on activation of any device.
- H. Ventilation system shutdown upon activation of duct smoke detectors.
- I. Smoke dampers close on detector activation.
- J. Central station verification of signals received at test and submittal of signal received documentation required.
- L. Completed and signed NFPA 72 inspection/test record forms and a UL certificate must be submitted to the Protective Inspection Division at time of, or prior to final acceptance approval.