



REQUIREMENTS FOR FIRE ALARM SYSTEMS

- 1. Fire Alarm Systems shall be designed and installed in accordance with the currently adopted Minnesota State Fire Code (MSFC), National Fire Protection Association 72 (NFPA) Standards and National Electrical Code (NEC).**
2. Permits are required for all fire alarm systems. You must obtain a Fire Alarm Systems permit prior to starting any onsite work, any work performed without a permit or early work authorization will be charged additional fees.
3. Applicable inspection fees are to be submitted with the fire alarm permit application.
4. All components of the system shall be *listed* for the application and installed per the appropriate codes, standards, and manufacturer's specifications.
5. All Fire Alarm Systems shall be addressable. Exception, a zoned panel may be allowed when the system is limited to monitor a single special hazard or fire sprinkler system (dedicated function) only and there are no other devices.
6. An electrical permit is required from the Minnesota State Board of Electricity, including final inspection. Contact the Minnesota State Electrical Inspector for the required permit, including inspections.
7. Fire Alarm Annunciator Panel (FAAP) with full controls shall be installed at the main fire department entrance to the building. The FAAP shall be key operated.
8. Monitoring is required for new buildings with 20 or more sprinkler heads and existing buildings with 100 or more sprinkler heads. The water flow alarm signal must be distinguishable from all other signals when transmitted to an alarm monitoring company.
9. If monitoring is either required or voluntary, an approved key box with keys for the fire alarm system shall be provided to the Bemidji Fire Department to place in the building(s) lock box. *See Keybox Policy*
10. Tamper devices (breaker locks) shall be installed on all circuit breakers used for life safety systems and be red in color.
11. Manual pull stations shall be dual action and key resettable type, utilizing the same key as the fire alarm panel.
12. All smoke detection for HVAC shutdown and control of dampers shall be installed per the mechanical engineer's design and approved by the City of Bemidji Building Official if applicable. HVAC detection shall transmit a supervisory signal only.
13. Elevator installations shall meet the requirements of the Minnesota State Elevator Code. Permits are required for installation of smoke detection for elevator recall. Final testing shall be coordinated with the Bemidji Fire Department and the Minnesota State Elevator Inspector. Smoke/heat detection required per the Elevator Code must not initiate a general evacuation signal.

14. Maximum horn sound level of 110dBA. In residential occupancy, minimum sound level of 75 dBA or 5dBA above normal background noise levels at the "pillow" in sleeping areas. Sleeping areas must have "low frequency" sounders. Detection within dwelling units must not initiate a general evacuation signal.
15. Carbon Monoxide and gas detection systems shall not be connected to the fire alarm system unless *approved* and connected in accordance with the fire alarm equipment manufacturer's instructions. Audible and visible alarm signals associated with a gas detection system shall be distinct from fire alarm signals and shall transmit a supervisory signal only.
16. The system must be 100% tested prior to calling for final inspection.
17. Upon final acceptance passing, completed copies of the "Fire Alarm System Record of Completion" form shall be sent electronically by your respective organization via The Compliance Engine's online system at www.thecomplianceengine.com . Once uploaded, final acceptance will be processed.

The Bemidji Fire Department will witness all system tests and inspections required by MSFC and NFPA 70/72. Appointments can be scheduled by calling the Bemidji Fire Department at 218-751-8001 or emailing firecode@ci.bemidji.mn.us . After the system has been 100% tested, a minimum of 48-hour notice is required prior to scheduling an inspection.