Fire Alarm, Cellular Communication and Digital Security Controls

Apply On-Line at MyBuildingPermit.com

Select: King County | Fire | (Project Type) | (Activity Type) | Other Systems and Equipment

MyBuildingPermit

Fire alarm monitoring is a critical part of a comprehensive fire protection system. When a fire alarm goes off in your building, monitoring ensures that the signal is quickly assessed to verify that it is not a false alarm and then transmitted to first responders within minutes. With fire alarm monitoring, business owners can be confident that even if a fire breaks out when their building is unoccupied, it will still be quickly reported to emergency services, saving potentially tens of thousands of dollars in property damage.

All cellular communication devices shall be installed and inspected according to NFPA 72, 70, WAC, manufacturer, DSC requirements and King County guidelines. Request for inspection is required within 24 hours of energizing the device.

Designer Qualifications

Design personnel shall be qualified in the area of fire alarm systems design as defined by NFPA 72, Sec 10.5.1.1. The term “qualified personnel” shall include the following:

1) Personnel who are factory trained and certified for fire alarm system design of the specific type and brand of system being designed.
2) Personnel who are certified by a nationally recognized fire alarm certification organization acceptable to the AHJ.
3) Personnel who are registered, licensed or certified by a state or local authority.

Washington State AMMENDED CODE REQUIRES that all plans be stamped and signed by a NICT III designer of record (installing contractor). The designer's name shall be clearly printed in the plans (no pseudonyms, acronyms, or aliases). Installation work shall be done by licensed, fully experienced, and responsible persons.

International Fire Code section 907.10.2 Design review: All construction documents shall be reviewed by a NICET III in fire alarms or a licensed professional engineer (PE) in Washington prior to being submitted for permitting. The reviewing professional shall submit a stamped, signed, and dated letter; or a verification method approved by the local authority having jurisdiction indicating the system has been reviewed and meets or exceeds the design requirements of the state of Washington and the local jurisdiction (effective July 1, 2017).

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Installer Qualifications

Installation personnel shall be supervised by persons qualified and experienced in the installation, inspection or testing of fire alarm systems as defined by NFPA 72, Sec. 10.5.2.3 (2016 ed). The term qualified personnel shall include the following:

1) Personnel who are factory trained and certified for fire alarm system design of the specific type and brand of system being designed.
2) Personnel who are certified by a nationally recognized fire alarm certification organization acceptable to the AHJ (i.e. IMSA – International Municipal Signal Association & NICET II – National Institute for Certification in Engineering Technologies).
3) Personnel who are registered, licensed or certified by a state or local authority.

Location/Installation information

The device shall be mounted near the FACP in a temperature-controlled environment. If it is mounted on the interior side of an exterior metal, concrete, or block wall it is on an insulating board to prevent direct contact with moisture or temperature extremes.

Alternate locations, if approved by the Fire Marshal, may require the device to be located inside a lockable NEMA 4X enclosure with a smoke detector and thermostatically controlled heater.

Inspection items will consist of but not limited to the following:

1) Accessibility to the device must be maintained at all times without obstructions.
2) Wire from A/C transformer enclosure to device enclosure are in metal conduit.
3) AC transformer plugged into unswitched outlet and dedicated branch circuit.
4) Determine best signal location, follow indoor/outdoor antenna mounting requirements for each device. (check the manufacture requirements for an inspection check list for your device).
5) AC failure, Battery connection
6) Signal strength, Signal loss
7) General Alarm (Zone 1)
8) General Trouble (Zone 2)
9) Supervisory (Zone 3)
10) Waterflow (If Fire Sprinkler System installed, Zone 4) outputs from the FACP are connected to supervised input zones on the AES.

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11) All zones, signals, or address capable of being transmitted by the FACP are transmitted to the central station.

To prevent re-inspection fee, verify the device installation meets all installation requirements and the system has been pre-tested with verification of proper signal transmission to central station. Confirm electrical permit has been signed off. Request for inspection is required within 24 hours of energizing the Device.

Application for Permit

An Other Fire System and Equipment application form permit submittal package must include:

1) Fire System Permit Application available on MyBuildingPermit.com.
2) Plan set with cover sheet.
3) Plan sheets should include the following information:

a) A statement of the scope of work that this permit is intended to cover.

b) Indicate the location of the new proposed wireless monitoring unit and existing or new FACP.

c) Provide a note on the plan that if panel location is exposed to weather conditions, a NEMA 4R enclosure shall be utilized.

d) Provide a note on the plan for the various means of attaching the antenna, either inside attached to the panel, on the roof, noting different sizes that may be required. Also note that final selection of antenna chosen from the detail provided and location shall be selected at time of installation for optimal signal strength.

e) Appliance(s) description.

f) Wiring schematic to include an isometric layout.

g) Device calculations.

h) Provide data sheets on the system and its intended use.

i) Provide a note on the plan that at the time of final inspection, real-time proof of at least (2) separate (reliable listed and approved for use) paths of communication with a NetCon factor of 0 to 5 will be provided. (with “good” signal as all primary and secondary jumped listed approved subscribers)

j) Declare on plans if this will be a Remote or UL Central Station means of monitoring?

k) If you are declaring UL Central Station, you must address on plans how Central Station complies with all of NFPA-72: 8.2.4.

l) Provide the manufactures installation and inspection guide.

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Obtaining an Alternative Fire Extinguishing Systems and Equipment Permit

Go to MyBuildingPermit.com The permit type selections are:

Jurisdiction: *King County*

Application Type: *Fire*

Project Type: *Non-Residential*

Activity Type: *(Choose one)*

Scope of Work: *Other Systems and Equipment*

Apply On-Line at MyBuildingPermit.com

Select: King County | Fire | (Project Type) Non-Residential| (Activity Type) | Other Systems and Equipment

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If you have questions or would like to inquire about alternatives, please email DPERWebInquiries@kingcounty.gov

Additional Resources

King County Department of Local Services, Permitting Division

Permit Fees

Fire Permits Packet

On-line Permit Status, Invoice Payment and Inspection Scheduling

IVR Inspection Scheduling, phone number and codes