

Amendment to the Ministerial Ordinance that Stipulates Technical Specifications for Detectors and Manual Call Points, the Ministerial Ordinance that Stipulates Technical Specifications for Control and Indicating Equipments, and the Ministerial Ordinance that Stipulates Technical Specifications for Transmitters (Draft)

Fire Prevention Division,
Fire and Disaster Management Agency (FDMA)

1. Reason for Amendment

- (1) With regard to detectors, control and indicating equipments, and transmitters used for residential fire alarm systems, houses equipped with residential fire alarm systems are usually smaller than other target buildings and do not have a thick wall structure that would prevent data communications. With the recent progress in wireless communications technologies, the amended ministerial ordinance will specifically stipulate necessary testing methods, etc. so that residential fire alarm systems (In this context, the term “residential fire alarm system” shall have the meaning defined in Item 2, Article 2 of the Ministerial Ordinance that Stipulates Technical Standards for Residential Fire Alarm Devices and Residential Automatic Fire Alarm Systems.) may be equipped with a detector, a control and indicating equipment, a transmitter that is capable of wirelessly sending or receiving fire signals.
- (2) In addition, the amended ministerial ordinance will define necessary terminologies. As JIS Standards have been abolished, the amended ministerial ordinance will also stipulate necessary rules and requirements.

2. Amendments

A. Detector

- (1) Regarding testing methods for detectors capable of wirelessly sending fire signals (hereinafter, referred to as “wireless detector”), the amended ministerial ordinance will stipulate the following rules and requirements.
 - i) Power supply voltage variable test

Even though voltage varies within the designated range, the wireless detector shall continue to function normally.
 - ii) Structures and Functions of Wireless Detector
 - a) The wireless detector shall comply with the Radio Law and any other applicable legislation.
 - b) The field intensity of the fire signal shall be equal to or stronger than a specified level.
 - c) The wireless detector shall send a fire signal or any other signal for a specified period after detecting a fire. The wireless detector shall intermittently send a fire signal or any other signal while it continues to detect a fire.
 - d) The fire signal transmitted from the wireless detector should be easily tested.
 - e) The radio wave transmitted from the wireless detector should be regularly tested.
 - f) A signal transmitted from the wireless detector shall not interfere with any signal transmitted from other equipment.
 - g) If a wireless detector employs a battery as its power source, it should be easy to replace the battery. When voltage reaches the minimum level to effectively operate the detector, the detector shall automatically send a signal to inform the operator accordingly.
 - iii) Bright light test, etc.

If a detector is exposed to a specified electromagnetic wave when the electricity is turned on, the detector shall not send any fire signal and shall not function abnormally.
- (2) The amended ministerial ordinance will stipulate other necessary rules and requirements.

B. Control and Indicating Equipments

- (1) Regarding testing methods for control and indicating equipments capable of wirelessly receiving fire signals (hereinafter, referred to as “wireless control and indicating equipment”), the amended ministerial ordinance will stipulate the following rules and requirements.

i) Structures and Functions of Wireless Control and Indicating Equipment

- a) The wireless control and indicating equipment shall comply with the Radio Law and any other applicable legislation.
- b) The receiving intensity shall be equal to or stronger than a specified level.
- c) If the wireless control and indicating equipment sends an examination signal, it shall have a field intensity that is equal to or stronger than the specified level.
- d) If the wireless detector suffers any abnormality, or if the field intensity gets weaker than the receiving sensitivity or lower level, a sound device or indication light shall automatically start working.
- e) If a control and indicating equipment receives the wireless detector's signal that indicates that the battery power had dropped below a specified level, a sound device or indication light shall automatically start working.
- f) The signal received or transmitted from wireless control and indicating equipment shall not interfere with any signal transmitted from other equipment.

ii) Electromagnetic wave test

If a control and indicating equipment is exposed to a specified electromagnetic wave, the control and indicating equipment shall not send any fire signal and shall not function abnormally.

(2) The amended ministerial ordinance will stipulate other necessary rules and requirements.

C. Transmitters

(1) Regarding testing methods for transmitters capable of wirelessly sending or receiving fire signals (hereinafter, referred to as "wireless transmitter"), the amended ministerial ordinance will stipulate the following rules and requirements.

i) Structures and Functions of Wireless Transmitter

- a) The wireless transmitter shall comply with the Radio Law and any other applicable legislation.
- b) If the wireless transmitter is capable of sending a signal, the following rules shall be applicable.
 - b-1) The field intensity of the fire signal shall be equal to or stronger than a specified level.
 - b-2) The wireless transmitter shall intermittently send a fire signal or any other signal while it continues to receive a fire signal or any other signal.
 - b-3) The fire signal transmitted from the wireless transmitter should be easily tested.
 - b-4) Radio waves transmitted from a wireless transmitter should be regularly tested.
- c) If the wireless transmitter is capable of receiving a signal, the following rules shall be applicable.
 - c-1) The receiving sensitivity shall be equal to or stronger than a specified level.
 - c-2) If the field intensity of a received fire signal drops below the receiving sensitivity or lower level, the transmitter shall automatically send a signal to the control and indicating equipment accordingly.
- d) A signal transmitted from the wireless transmitter shall not interfere with any signal transmitted from other equipment.
- e) If a wireless transmitter employs battery as its power source, it should be easy to replace the battery. If the voltage reaches the minimum level to effectively operate the transmitter, the transmitter shall automatically send a signal to inform the operator accordingly.

ii) Electromagnetic wave test

If a transmitter is exposed to a specified electromagnetic wave, the transmitter shall not send any fire signal and shall not function abnormally.

(2) The amended ministerial ordinance will stipulate other necessary rules and requirements.

3. Date of entry into force

The amended Ministerial Ordinance will come into effect on August 1, 2006.