control unit on which are located visible and audible fire and trouble alarms, and fire alarm circuits as required originating from the control unit and terminating at manual fire alarm boxes. Power failure alarm devices may be separately housed from the control unit and may be combined with other power failure alarm systems when specifically approved.

(b) Types. Manual fire alarm systems shall be one of the following types, or a combination of several types:
(1) Manual fire alarm stations superimposed on and connected as an integral part of the fire detector circuit wiring of an automatic fire detection system.
(2) Electrical system using manually operated fire alarm boxes.
(3) Other types as may be developed.

(c) Power supply. The power supply shall be as specified for automatic fire detecting systems by §161.002–9.

(d) Manual fire alarm system control unit. The manual fire alarm system control unit shall be as specified for automatic fire detecting systems by §161.002–10.


§ 161.002–14 Watchman’s supervisory systems.

(a) General. The watchman’s supervisory system shall consist of apparatus to verify the presence of watchmen and the regular performance of their assigned duties.

(b) Types. The watchman’s supervisory systems shall be one of the following types, or a combination of several types:
(1) A mechanical system consisting of portable spring-motor-driven recording clocks in conjunction with key stations located along the prescribed routes of the watchmen to operate the clock recording mechanism.
(2) An electrical system employing a recorder located at a central station in conjunction with key stations along the prescribed route of the watchmen.
(3) Other types that may be developed.

(c) Portable spring-motor-driven recording clocks. (1) Each clock shall run for at least one week without rewinding and shall be substantially mounted and strongly encased. It shall be made so that the recordings cannot be seen without opening the case and so that the case cannot be opened without indicating, by a distinctive recording, the time of opening and closing.
(2) The records of the recording watch clock shall be legible and permanent.

(d) Key stations for use with portable recording watch clocks. (1) The key station shall be of substantial construction and provided with a hinged cover. The key shall be attached to the station by means of a strong link chain. The key stations shall be mounted in such a manner that they cannot be removed without giving evidence of removal.
(2) Keys shall be made so that they are difficult to duplicate, and shall be of a pattern susceptible of variations tending to reduce the probability that a set of keys for one clock will operate other clocks.

[21 FR 9032, Nov. 21, 1956, as amended by CGFR 59–7, 24 FR 3241, Apr. 25, 1959]

§ 161.002–15 Sample extraction smoke detection systems.

The smoke detecting system must consist of a means for continuously exhausting an air sample from the protected spaces and testing the air for contamination with smoke, together with visual and audible alarms for indicating the presence of smoke.


§ 161.002–17 Equivalents.

The Commandant may approve any arrangement, fitting, appliance, apparatus, equipment, calculation, information, or test that provides a level of safety equivalent to that established by specific provisions of this subpart. Requests for approval must be submitted to Commandant (CG–ENG). If necessary, the Commandant may require engineering evaluations and tests to demonstrate the equivalence of the substitute.


§ 161.002–18 Method of application for type approval.

(a) The manufacturer must submit the following material to Commandant