

MDCH REQUIREMENTS FOR EMERGENCY FUEL IN HOSPITALS

(Effective January 23, 2008)

Background

The Center for Medicare and Medicaid Services (CMS) conditions of participation requires under CFR 482.31(b) that, “There must be facilities for emergency gas and water supply.”

The following is a clarification of the department’s expectation for emergency fuel.

Emergency Generators

NFPA 70 (the National Electrical Code) is the primary reference from the Michigan Electrical Code. Part 3, Article 517, Sections 25 – 35 of NFPA 70 addresses the arrangement and scope requirements for essential electrical power. At a minimum it requires that the emergency power supply system be capable of serving the entire life safety and critical branches. It also requires that the critical branch include task illumination, receptacles, and selected power circuits needed for effective hospital operation (refer to NFPA 70 Section 517.33(a) for the listing).

The MDCH will also require that the critical branch include heating plant controls with necessary accessories, elevator service to each patient care floor, medical gas/vacuum systems with alarms, patient telemetry/physiological systems with associated communication systems, nurse call systems, defibrillators, automated medication dispensing systems, pharmacy hoods, laboratory hoods, patient/patient toilet room night lights, and ventilation to operating/delivery rooms. Note that many of these requirements existed under HEW 76-4000 construction standards that applied to hospital construction for over 20 years.

NFPA 110 establishes requirements for the emergency power supply system. At a minimum MDCH will require that sufficient on-site fuel storage be available to provide the above defined demand for at least 24 hours.

The [2007 Minimum Design Standards](#) includes additional clarification as to the extent of the critical branch coverage and requires 72 hours of on-site fuel storage.

Note that maintenance checks and readiness testing of emergency stationary internal combustion engine powered generators is limited to 100 hours per year by the EPA as per 29 CFR 60.4211(e). There is no time limit on the use for emergency situations.

Boilers

Hospitals that have steam delivered for building heat and domestic hot water from a municipal network are not required to have boilers or associated on-site fuel storage.

Hospitals equipped with systems to supply building heat and domestic hot water that routinely use on-site fuel will not be required to have additional emergency fuel capacity.

Hospitals equipped with systems to supply building heat and domestic hot water that routinely do not use on-site fuel will be required to provide:

1. Natural gas provided from at least two supply lines, designed so that gas will continue to the hospital in the event of disruption from one of supply lines; or
2. Provide a 24 hour supply (72 hours under the 2007 Minimum Design Standards) of alternate on-site fuel storage for boilers that matches the requirements for emergency generators for the number of boilers needed to supply peak demand loads; or
3. Have available for review an agreement with a reliable source for alternate fuel, all necessary connections, and conversion burners for the number of boilers needed to supply peak demand loads. (This is the least desirable option.)

Utilities

All utilities should be located sufficiently remote from one another such that a disruptive incident to one would not be anticipated to affect the others.