# CHAPTER 60 MINIMUM PHYSICAL STANDARDS FOR RESIDENTIAL CARE FACILITIES

[Prior to 7/15/87, Health Department[470] Ch 60]

- **481—60.1(135C) Definitions.** Definitions in 481—57.1(135C) and 481—63.1(135C) of the rules of this department are hereby incorporated by reference as part of this chapter.
- **481—60.2(135C)** Variances. Procedures for variances in 481—57.2(135C) or 481—63.2(135C) of the rules of this department are hereby incorporated by reference as part of this chapter. Certain occupancies, conditions in the area, or the site may make compliance with the rules impractical or impossible. Certain conditions may justify minor modification of the rules. In specific cases, variances to the rules may be permitted by the reviewing authority.

# 481—60.3(135C) General requirements.

- **60.3(1)** Residential care facilities shall contain the elements described herein and shall be built in accordance with construction requirements outlined. (III)
- **60.3(2)** This chapter covers both new and existing construction. In various sections of the rules specific provisions for existing structures, differing from those for new construction, are provided by a notation at the end of the rule as follows:
- a. Exception 1: Rule does not pertain to facilities licensed for less than 16 beds; or units housing fewer than 16 beds which are in distinctly separate buildings, located on a contiguous parcel of land, separated only by a public or private street. (Refer to Iowa Code chapter 414, municipal zoning, section 22, zoning for family homes, for additional information.)
  - b. Exception 2: Rule does not pertain to facilities licensed before May 1, 1972.
- c. Exception 3: Rule does not pertain to facilities with construction plans approved by the department before May 1, 1977.
  - d. Exception 4: Rule does not pertain to facilities licensed before March 30, 1988.
- e. Exception 5: Rule does not pertain to facilities licensed as residential care facilities for eight or fewer beds.
- f. Exception 6: Rule does not pertain to facilities built according to plans approved by the department prior to May 6, 1992.
- **60.3(3)** The rules and regulations apply to all residential care facilities and the renovations, additions, functional alterations, or change of space utilization to existing residential care facilities construction after the effective date of these rules. Conversion of a building or any of the parts not currently licensed as a residential care facility must meet the rules governing construction of new residential care facilities. (III)
  - **60.3(4)** Building site is subject to departmental approval as based upon the following criteria:
- a. Submit a vicinity map indicating the site location and address on an  $8\frac{1}{2}$  by 11-inch sheet. If possible, include a city map. (III)
- b. Neighborhood environment shall be free from excessive noise, dirt, polluted or odorous air. (III)
- c. There shall be an area available for outdoor activities calculated at 40 square feet per licensed bed. (III) (Exception 4) Open air porches may be included in meeting requirements.
- d. Each facility shall have on-site parking space to satisfy the needs of residents, employees, staff, and visitors. (III)

The following shall be provided:

- (1) In facilities of 16 beds or greater, provide one space for each five beds, plus one space for each shift staff member and employee. (Exception 4)
- (2) In facilities of 15 beds or fewer, provide one space for each three beds, plus one space for each shift staff member and employee. (Exception 4)
  - (3) Handicapped parking as appropriate, or a minimum of one space. (Exception 4)

- e. Accessibility shall be provided for emergency and delivery vehicles. (III)
- **60.3(5)** When construction is contemplated, whether for a new building, an addition to an existing building, functional alteration to an existing building, or conversion of an existing building, the licensee or applicant for license shall:
- a. File a detailed and comprehensive program of care as set forth in rules 481—57.3(135C) or 481—63.3(135C), for departmental review and approval, including a description of the specific needs of the residents to be served and any other information the department may require. (III)
- b. Submit a preliminary site plan and floor plan for departmental review. The design must meet the requirements of all applicable state statutes, state fire codes, federal standards, and local ordinances. The most stringent rules of the above regulations apply in resolving conflicts. (III)
- c. Submit legible working drawings and specifications showing all elements of construction, fixed equipment, and mechanical and electrical systems to the department and to the state fire marshal for review. Such construction documents shall be prepared by or under the direct supervision of a registered architect or engineer, working within the appropriate field of registration, licensed to practice in Iowa. All construction documents shall be certified by and bear the seal of the architect or engineer responsible for the project. Each project shall be evaluated for its impact on the facility. Projects not affecting primary structural elements may, at the discretion of the department, be excluded from this rule. (III)
- d. Receive written approval from the department and the state fire marshal's office before start of construction. If on-site construction above the foundation is not started within 12 months of the date of final approval of the working drawings and specifications, this approval shall be void and the plans and specifications shall be resubmitted for reconsideration of approval. (III)
- e. All changes to the approved plans and specifications shall be approved in writing by the department and the state fire marshal's office prior to making the change. Applicant is responsible for ensuring that construction proceeds as per approved plans and specifications. (III)
- f. For new construction, an addition, functional alteration or conversion of an existing building, it shall be the responsibility of the owner or agent to notify the department at all of the following intervals and wait for inspection by the department before proceeding:
  - (1) At least 30 days before commencement of construction on the premises; (III)
  - (2) At least 30 days before the pouring of the concrete floor slab; (III)
- (3) After completion of the mechanical or electrical rough-in and 30 days before enclosing walls; (III)
  - (4) Thirty days before the completion of the project. (III)
- g. Certain occupancies, conditions in the area, or the site may make compliance with the rules impractical or impossible. Certain conditions may justify minor modifications of the rules. In specific cases, variations to the rules may be permitted by the reviewing authority after the following conditions are considered:
- (1) The design and planning for the specific property offer improved or compensating features providing equivalent desirability and utility;
- (2) Alternate or special construction methods, techniques, and mechanical equipment, if proposed, offer equivalent durability, utility, safety, structural strength and rigidity, sanitation, odor control, protection from corrosion, decay and insect attack, and quality of workmanship;
- (3) Variations permitted by the department do not individually or in combination with other variations endanger the health, safety, or welfare of any resident;
- (4) Variations are limited to the specific project under consideration and are not construed as establishing a precedent for similar acceptance in other cases;
  - (5) Occupancy and function of the building shall be considered;
  - (6) Type of licensing shall be considered.
- **60.3(6)** Except as provided in subrule 60.3(8), the facility shall be made accessible to and usable by the physically handicapped in accordance with the requirements of division 7 of the state building code, 661—16.704(103A) and 661—16.705(103A). (III) (Exception 3)

- **60.3(7)** Facilities licensed as residential care facilities for eight or fewer beds shall be accessible to and functional for the physically handicapped. An appropriate number (at least one) of the bathrooms and bedrooms shall be accessible to and usable by the physically handicapped. (III)
- **60.3(8)** No room in a basement shall be occupied for living purposes unless the room meets all the requirements of the department and receives approval of the department as fit for human habitation. (III) **60.3(9)** Foundation drainage.
- a. A foundation drainage system shall be installed around any portion of a building containing a basement. (III) (Exception 4)
- b. The foundation drainage system should be installed at a slope so the water will run to a low point and then run into a sump pit in the basement, to a storm sewer system, or out to surface drainage. (III) (Exception 4)
- c. The foundation drainage system shall not be connected to the sanitary sewer system. (III) (Exception 4)
- d. The highpoint of the flow line shall be 4 inches below the elevation of the basement floor slab. (III) (Exception 4)
- **60.3(10)** Projects involving alterations of and additions to existing buildings shall be programmed and phased so that on-site construction will minimize disruptions of existing functions. Access, exitways, and fire protection shall be maintained so the safety of the occupants will not be jeopardized during construction. (III)
- **60.3(11)** Record drawings. Upon completion of the contract, the department shall be provided a complete set of approved legible plans and specifications showing all construction, fixed equipment, mechanical, and electrical systems and addendums as installed or built. (III)
- **60.3(12)** The installation of any equipment found to be hazardous, or which fails to meet the purposes for which it is intended, shall be removed or replaced, or a substitute of suitable equipment shall be required. (III) (Exception 4)
- **481—60.4(135C) Typical construction.** This rule contains construction requirements that are typical in all areas of the building.
- **60.4(1)** Details and finishes shall be designed to provide a high degree of safety for the occupants by minimizing the opportunity for accidents. Hazards such as sharp corners shall be avoided. (III)
  - **60.4(2)** Minimum exit corridor widths.
- a. Minimum exit corridor widths shall be 6 feet, except that corridors in adjunct areas not intended for the housing or use of residents may be a minimum of 4 feet in width. (III) Handrails may project into corridors. (Exceptions 1 and 3)
- b. In facilities of 15 beds or less, the minimum exit corridor widths shall be 5 feet. (III) (Exception 4)
- **60.4(3)** Drinking fountains, telephone booths, and vending machines shall be located so they do not project into the required width of any corridor. (III)
- **60.4(4)** Minimum width of all side-hinged doors to all rooms shall be 3 feet. (III) (Exceptions 3, 4, and 5) Doors to resident toilet rooms and other rooms needing access for wheelchairs shall have a minimum clear opening width of 32 inches. (III)
- **60.4(5)** Approved handrails shall be provided on both sides of corridors used by residents with a clear distance of 1½ inches between handrail and wall. (III) (Exception 4) This rule does not apply to residential care facilities for the mentally retarded licensed for eight or fewer beds.
- a. Handrails shall be mounted with their top surfaces 31 to 34 inches above the finished floor. (III) (Exception 3)
  - b. Handrails shall have the ends rounded and returned to the wall. (III) (Exceptions 2 and 4)
  - c. All stairways in resident-occupied areas shall have substantial handrails on both sides. (III)
  - **60.4(6)** Each open stairway shall be protected with an approved guardrail. (III)
- **60.4(7)** Landings shall be provided at the top and the bottom of each stair run. There shall be an approved landing between the top step and the doorway regardless of the direction of the door swing. (III) (Exception 4)

- **60.4(8)** Toilet and bath facilities shall have an aggregate outside window area of at least 4 square feet. Facilities having a system of mechanical ventilation are exempt from this regulation. (III)
- **60.4(9)** No door shall swing into the exit corridor except doors to spaces such as small closets which are not subject to occupancy or resident bedroom doors as indicated in 481—60.5(6) "i" or as required by the state fire marshal. (III)
  - **60.4(10)** All doors opening from corridors shall be swing-type except elevator doors. (III) **60.4(11)** Mirrors.
- a. Mirrors in resident bathrooms or toilet rooms shall be arranged for convenient use by residents in wheelchairs as well as by residents in a standing position. (III)
  - b. The bottom of the mirror shall be no higher than 40 inches from the floor. (III) (Exception 3)
  - **60.4(12)** All lavatories shall have towel dispensers which hold nonreusable towels. (III)
- **60.4(13)** Screens of 16 mesh per square inch shall be provided at all exterior openings and any doors that are normally left in an open position. (III)
- **60.4(14)** Screen doors shall swing outward and be self-closing. At the discretion of the state fire marshal, screens for fire doors may swing in. (III)
- **60.4(15)** Fire escape porch railings and protected barrier enclosures shall be designed to resist a horizontal thrust of 50 pounds per running foot of railing applied to the top of the railing. (III)
- **60.4(16)** Exposed heating pipes, hot water pipes, or radiators in rooms and areas used by residents and within reach of residents shall be covered or protected to prevent injury or burns to residents. (II, III)
- **60.4(17)** All fans located within 7 feet of the floor shall be protected by screen guards of not more than ¼-inch mesh. On fans with U.L. approved safety guards netting shall not be required. (III)
  - **60.4(18)** Finishes shall be as follows:
- a. Floors generally shall be easy to clean and shall have the wear resistance appropriate for the location involved. Floors in kitchens and related spaces shall be waterproof and greaseproof. In all areas where floors are subject to wetting, they shall have a slip-resistant finish. (III)
- b. Ceilings generally shall be washable or easy to clean. (III) This requirement does not apply to boiler rooms, mechanical and building equipment rooms, shops, and similar spaces.
- c. Ceilings in the dietary and food preparation areas shall have a finished ceiling covering all overhead piping and ductwork. (III) (Exception 3)
- d. Ceilings shall be acoustically treated in the attendant's area, day rooms, dining rooms, recreation areas, waiting areas, and corridors in resident areas. (III) (Exceptions 1 and 4)
- e. Wall assemblies shall be constructed to present cleanable and continuous surfaces to the interior of resident rooms and resident corridors. (III) (Exception 4)
- **60.4(19)** Partition, floor, and ceiling construction in resident areas shall comply with noise reduction criteria in the following table. The requirements set forth in this table assume installation methods which will not appreciably reduce the efficiency of the assembly as tested. Location of electrical receptacles, grills, ductwork, and other mechanical items, and blocking and sealing of partitions at floors and ceilings shall not compromise the sound isolation required. (III)

# Table No. 1 (Exception 2)

Airborne Sound
Transmission Class
(STC)*

	<u>Partitions</u>	<u>Floors</u>
Resident's room to resident's room	35	35
Corridor to resident's room	35	35
Public space to resident's room**	40	40
Service areas to resident's room***	50	50

\*Sound transmission (STC) shall be determined by tests in accordance with methods set forth in ASTM Standard E 90 and ASTM Standard E 413.

\*\*Public space includes lobbies, dining rooms, recreation rooms, treatment rooms, and similar places.

\*\*\*Service areas include kitchens, elevators, elevator machine rooms, laundries, garages, maintenance rooms, boiler and mechanical equipment rooms, and similar spaces of high noise. Mechanical equipment located on the same floor or above residents' rooms, office, nurses stations, and similar occupied spaces shall be effectively isolated from the floor.

**60.4(20)** The following ceiling heights shall be provided:

- a. Corridors, storage rooms, resident's toilet rooms, and other minor rooms, not less than 7 feet 6 inches. (III) (Exception 2)
  - b. All other rooms not less than 8 feet. (III) (Exception 2)
- c. Ceiling-mounted equipment, luminaries, suspended tracks, rails, and pipes located in the path of normal traffic shall not be less than 6 feet 8 inches above the floor. (III) (Exception 3)
- **60.4(21)** Doors, sidelights, borrowed lights, and windows in which the glazing extends below 31 inches from the floor shall have a horizontal mullion or railing at 31 to 34 inches above the finished floor, and be glazed with safety glass, plastic glazing material, or wire glass where required by the state fire marshal. (III) (Exceptions 3 and 4) All replacement glass shall meet this code with no exception. (III)
- **60.4(22)** All sheet plastic and molded plastic insulation in living spaces, attics, and crawl spaces shall be covered with an approved thermal barrier as defined in NFPA No. 205M-T, "Plastics in Building Construction." The thermal barrier shall be constructed of materials with no less than the fire protection qualities of ½-inch fire resistant gypsum board or as accepted by U.B.C., Sec. 1712(b)2, 1985 Edition. (III) (Exception 3)
- **60.4(23)** Thresholds shall be low profile and expansion joint covers shall be made flush with the floor surface to facilitate the use of wheelchairs and carts. (III)

#### **481—60.5(135C)** Supervised care unit.

**60.5(1)** Definition of a supervised care unit. A supervised care unit shall not contain more than 60 beds and shall have the following rooms or areas: (III)

Attendant's station,

Clean workroom,

Medication room,

Resident rooms,

Resident toilets or baths,

Private room,

Soiled workroom, and

Enclosed clean linen storage.

**60.5(2)** In facilities over 15 beds, an attendant's station with a minimum of 40 square feet shall be provided which is centrally located in the resident area and shall have a well-lighted desk with the necessary equipment for the keeping of required records and supplies. (III)

- **60.5(3)** A clean workroom, which may be combined with the medication room for storage and assembly of clean supplies, shall contain a work counter and sink. (III) (Exceptions 1 and 2)
  - **60.5(4)** The medication room shall be well-lighted and shall have the following: (III)
  - a. Drug cabinet,
  - b. Work counter,
  - c. Refrigerator storage,
  - d. Chest or compartment with a lock for Schedule II drugs,
  - e. Lavatory.
- **60.5(5)** Instead of the requirements in subrule 60.5(4), facilities licensed for 15 beds or less shall contain space for storage of medications which: (III)
  - a. Is locked.
  - b. Is adjacent to a lavatory,
- c. Provides for Schedule II drugs as defined by Iowa Code chapter 124, which shall be kept in a locked box within the locked medication cabinet,
  - d. Has space available for refrigerating medication.
  - **60.5(6)** Resident rooms shall meet as a minimum the following requirements:
- a. Bedrooms shall open directly into a corridor or common living area. (III) Bedrooms shall not be used as a thoroughfare. (III)
- b. The minimum room area, exclusive of closets, toilet rooms, lockers, wardrobes, vestibules, and corridor door swings shall be 100 square feet in one-bed rooms and 80 square feet per bed in multibed rooms. Usable floor space of a room shall be no less than 8 feet in any major dimension. (III) (Exception 4)
- c. Each resident room shall be provided with light and ventilation by means of a window or windows with a net glass area equal to 10 percent of the total floor area. The windows shall be openable without the use of tools. The window sill shall not be higher than 3 feet above the floor. (III) (Exception 4)
- d. There shall be a wardrobe or closet in each resident's room. For each resident, the minimum clear dimensions shall be 1 foot 10 inches deep by 2 feet 6 inches wide of clear hanging space. A clothes rod and shelf shall be provided. Where a closet is shared, segregated portions shall be established. Each wardrobe and closet in each resident room shall have a door. (III) (Exceptions 2 and 4)
- e. No bedroom shall be located so that its floor will be more than 30 inches below the adjacent grade level. (III)
  - f. Fixtures or storage shall be provided to hold individual towels and washcloths. (III)
- g. No part of any room shall be enclosed, subdivided, or partitioned unless such part is separately lighted and ventilated and meets other requirements its usage and occupancy dictate, except closets used for the storage of resident's clothing. (III)
  - h. Rooms in which beds are erected shall not be used for purposes other than bedrooms. (III)
- *i.* Each resident bedroom shall have a door. The door shall be the swing type and shall swing in, unless fully recessed. (III)
- *j*. Multibed rooms shall be designed to permit no more than two beds, side-by-side, parallel to the window wall. (III) (Exceptions 2 and 4)
- k. Each resident bedroom shall be so designed that the head of the bed shall not be in front of a window or a heat register or radiator. (III)
- *l.* One lavatory shall be provided in each resident room. The lavatory may be omitted from a room when a lavatory is located in an adjoining toilet room which serves that room. (III) (Exception 3)
- *m*. In facilities with eight or fewer beds, one lavatory shall be provided in each resident room. The lavatory may be omitted from a room when a lavatory is located in an adjacent toilet room which serves that room.
  - n. Multibed rooms shall provide full visual privacy for each resident. (III)
  - **60.5(7)** Resident toilet rooms.

- a. Each resident room toilet shall have a swing or sliding door (not a pocket door). The door shall not swing into the toilet room. The doorway must have a minimum clear opening width of 32 inches. (III) (Exception 4)
- b. An appropriate number of toilets commensurate with the facility's program of care shall be accessible to and usable by handicapped residents (minimum of one). (III) (Exceptions 3 and 4)
  - c. All toilet rooms shall have mechanical ventilation. (III) (Exception 3)

# 60.5(8) Central bathing.

- a. Minimum numbers of toilet and bath facilities shall be one lavatory and one water closet for each 10 residents, and one tub or shower for each 15 residents or fraction thereof. See 481—60.5(8) "l" for grab bars and 481—60.11(4) "e" (9) for number of fixtures in smaller facilities. (III)
- b. There shall be a minimum of one bathroom with tub or shower, water closet, and lavatory on each floor which has resident bedrooms in multistory buildings. (III)
  - c. Separate toilets for the sexes shall be provided. (III) (Exception 1)
  - d. Privacy for dressing and bathing shall be provided in central bathrooms. (III)
  - e. All bathrooms shall have mechanical ventilation. (III) (Exception 3) See 60.11(3) "i."
- f. The number of showers accessible to and usable by handicapped residents shall be commensurate with the facility's program of care. There shall be at least one. (III) (Exception 3)
  - g. Each bathroom shall have a water closet and a hand-washing lavatory. (III)
  - h. Toilet and bathing facilities shall not open directly into food preparation areas. (III)
  - i. Central bathing areas shall have a swinging door which swings into the bathroom. (III)
- *j.* The number of sinks accessible to and usable by handicapped residents shall be commensurate with the facility's program of care. All lavatories shall be securely anchored to withstand an applied vertical load of not less than 250 pounds on the front of the fixture. Exposed hot water and drain pipes under lavatories shall be insulated or shielded as per the state building code. (III) (Exception 4)
  - k. Soap holders shall be provided in showers and bathtubs. (III) (Exception 3)
- *l.* All toilet, bath, and shower facilities shall be supplied with grab bars and adequate safety devices appropriate to the needs of the individual residents. The bars shall have 1½-inch clearance to walls, shall be sufficient strength and anchorage to sustain a concentrated load of 250 pounds, and shall meet division 7 of the Iowa state building code.
  - m. Raised toilet seats shall be available for residents as needed. (III)
- n. In facilities where the total occupancy of family, employees, and residents is more than five, separate bathing and toilet facilities shall be required for the family or employees distinct from such areas provided for residents. (III)
- o. Each facility must provide no less than one bathing system accessible to the handicapped. (III) (Exceptions 1 and 4)
- *p*. Bathtubs or showers shall be equipped with screwdriver stop valves in the water supply system. (III) (Exception 4)
  - q. Showers shall be equipped with a shower head on the end of a flexible hose. (III) (Exception 4) **60.5(9)** Private room.
- a. At least one single bed resident room shall be provided for purposes of privacy or incompatibility with other residents in the home. This room shall be used for emergency purposes and for short, intermittent periods of time. (III) (Exceptions 2 and 4)
- b. The bed in the privacy room shall be counted in the total licensed bed capacity of the facility. The resident of such room shall be informed, and it shall be contained in the resident's contract, that the resident is subject to removal from the room when it becomes necessary to transfer another resident of the facility into it. Where, in the determination of the department, the facility is not making proper use of the room when privacy or isolation is deemed necessary, the department may choose not to license that bed in order to promote its effective use. (III)
- **60.5(10)** A soiled workroom, workcounter, waste and soiled linen receptacles, and a two-compartment sink shall be provided. (III) One compartment of the double sink shall be a minimum of 10 inches deep for cleaning and sanitizing equipment. (III) (Exceptions 1 and 3)
  - **60.5(11)** Enclosed clean linen storage, separate from the clean workroom. (III)

### 481—60.6(135C) Support area.

**60.6(1)** Definition of a support area. The size of a support area shall depend upon the number and types of beds within the supervised unit. A support area shall contain the following rooms or areas: (III) Dining room,

Activity or recreation area,

Personal care room,

Equipment storage.

- **60.6(2)** Multipurpose rooms. Where space is provided for multipurpose dining, activities, or recreational purposes, the area shall total at least 30 square feet per licensed bed for the first 100 beds and 27 feet per licensed bed for all beds in excess of 100. An open area of sufficient size shall be provided to permit group activities such as religious meetings or presentation of demonstrations or entertainment. (III)
- **60.6(3)** Where space is provided to be used only for activities and recreational purposes, the area shall be at least 15 square feet per licensed bed. At least 50 percent of the required area must be in one room. (III)
- **60.6(4)** Where the dining and the lounge recreation areas are separated, each area shall provide a minimum of 180 square feet of usable floor space and be not less than 10 feet in any one dimension. Where space is provided to be used only for dining, the area shall total at least 15 square feet per licensed bed. (III)

**60.6(5)** Areas appropriate for the activities program shall be provided which shall:

- a. Be readily accessible to wheelchair and ambulatory residents. (III)
- b. Be of sufficient size to accommodate necessary equipment and to permit unobstructed movement of wheelchairs, residents, and personnel responsible for instructing and supervising residents. (III)
- c. Have space to store recreational equipment and supplies for the activities program within, or convenient to, the area or areas. Locked storage shall be available for potentially dangerous items such as scissors, knives and toxic materials. (III)

**60.6(6)** Personal care room.

- a. A personal care room with barber and beauty shop facilities shall be provided. (III) (Exception 1)
- b. In facilities of less than 100 beds, a multipurpose room with appropriate space and equipment may be utilized for such activities.
- **60.6(7)** An equipment storage room shall be provided. (III) The area of this storage room may be used in calculating the total required general storage area as found in subrule 60.7(5). (Exception 1)
- **60.6(8)** Enclosed clothing storage of at least 2 linear feet per bed for storage of off-season clothing shall be provided. (III) This could be counted as part of the general storage areas requirement and could be installed accessible in the general storage area. (Exception 4)

### 481—60.7(135C) Service area.

**60.7(1)** *Definition of a service area.* The size of a service area shall depend upon the number and types of beds within the supervised unit. A service area shall contain the following rooms or areas: (III)

Dietetic service area,

Janitor's closet,

Laundry area,

General storage area,

Mechanical room,

Maintenance shop,

Yard equipment storage area.

**60.7(2)** Dietetic service area.

a. Detailed layout plans and specifications of equipment shall be submitted to the department for review and approval before the new construction, alterations, or additions to existing kitchens begin. (III)

- b. The construction and installation of equipment of the dietetic service area shall comply with or exceed the minimum standards set forth in the "Food Service Manual" (DHEW Publication No.(FDA) 78-2081, 1976 Edition). (III) (Exception 4)
- c. In facilities where the total occupancy of family, employees and residents is more than six, the dietetic service area shall provide food serving facilities for residents and staff outside the food preparation area. (III)
- d. The dishwashing area shall be provided with mechanical dishwashing equipment. (III) Either conventional or chemical dishwashing equipment may be used.
- (1) Where conventional dishwashing equipment is used, refer to 481—60.11(4) "e"(9) for water temperature requirements. (III)
- (2) A three-compartment pot and pan sink shall be provided for warewashing which provides and maintains 110° Fahrenheit to 115° Fahrenheit water for washing and 170° Fahrenheit to 180° Fahrenheit for sanitizing, or a two-compartment sink shall be provided for soaking and washing utensils, with easy access to a dish machine which must be large enough for sanitizing all sizes of utensils used. (III)
- (3) Machines (single-tank stationary rack, door-type machines and spray-type glass washers) using chemicals for sanitation may be used, provided that:
  - 1. The temperature of the wash water shall not be less than 120° Fahrenheit. (III)
  - 2. Chemicals added for sanitation purposes shall be automatically dispensed. (III)
  - 3. The wash water shall be kept clean. (III)
- 4. Utensils and equipment shall be exposed to the final chemical sanitizing rinse in accordance with manufacturers' specifications for time and concentration. (III)
- 5. The chemical sanitizing rinse water temperature shall be not less than 75° Fahrenheit nor less than the temperature specified by the machine's manufacturer. (III)
- 6. Chemical sanitizers used shall meet the requirements of 21 CFR 178.1010, January 1987. (III) (See Food Service Sanitation Manual)
- 7. A test kit or other device that accurately measures the parts per million concentration of the solution shall be available and used. (III)
- e. The dietetic service area shall be designed to provide a separation of the clean and dirty areas and to eliminate intermingling of the two types of activities. (III) Food preparation and service areas are regarded as clean areas.
- f. A hand-washing lavatory without mirror shall be provided in the dietetic service area. (III) (Exception 2) In facilities licensed for eight beds or fewer, the lavatory shall be adjacent or convenient to the dietetic service area. (III)
  - g. There shall be refrigerated storage for at least a three-day supply of perishable food. (III)
- h. No less than  $2\frac{1}{2}$  square feet of shelving per resident bed shall be provided for staple food storage. (III) (Exception 3) There shall be available storage for at least a seven-day supply of staple food. (III)
  - i. A cart storage area shall be provided. (III) (Exceptions 1 and 2)
- *j*. Provisions for maintaining sanitary waste disposal and storage shall be provided on the premises. (III)
  - k. A toilet room with lavatory conveniently accessible for the dietary staff shall be provided. (III)
- *l.* There shall be an outside service entrance to the food service area which does not open directly into the dietary department. (III) (Exceptions 1 and 2)
  - m. The food service area shall not be less than 8 square feet per resident bed. (III) (Exception 1)
  - n. See subrule 60.11(3) for ventilation requirements. (III)
- o. Where meals are provided by a health care facility or by a commercial food service, the preparation, storing and serving of the food and the utensil sanitizing procedures shall meet the requirements of these rules. (III)
- p. Mechanical ventilation shall be provided in food storerooms to maintain temperatures and humidity at a level appropriate for the type of food being stored. (III) (Exception 4)
- q. All cooking systems shall be provided with a properly sized exhaust system. See 60.11(3) "o." (III) (Exception 4)

r. One janitor's closet shall be in the immediate vicinity of the dietary area for dietary use only. (III) (Exceptions 1 and 2)

### 60.7(3) Janitor's closet.

- a. A janitor's closet shall be provided for storage of housekeeping supplies and equipment, including a floor receptor or service sink. (III) (Exception 1)
  - b. The door to the janitor's closet shall be equipped with a lock. (III)
  - c. Locked storage shall be provided for chemicals. (III)
  - d. A receptor floor drain or service sink shall be provided. (III)

## **60.7(4)** *Laundry area.*

- a. In the laundry a work flow pattern shall be established in which soiled linen is not transported through the clean area to the soiled area. Two distinct areas physically separated, not necessarily by a wall, are required. (III) (Exception 1)
- b. A hand-washing lavatory shall be located between the soiled area and the clean area. (III) (Exception 4) In facilities licensed for 15 beds or fewer, a hand-washing lavatory located adjacent to the laundry area may meet this requirement.
  - c. Refer to 60.11(4) "e" (9) for water temperature requirements. (III)
  - d. Where linen is processed on site, the following shall be provided:
- (1) A clean, dry, well-lighted laundry processing room with equipment sufficient to process seven days' needs within the workweek. (III)
  - (2) A soiled linen holding area. (III) (Exception 1)
  - (3) A clean linen, mending, and ironing area. (III) (Exception 1)
  - (4) Linen cart storage. (III) (Exception 1)
  - (5) Lockable storage for laundry supplies. (III) (Exception 4)
- (6) One janitor's closet or alcove in the immediate vicinity of the laundry. (III) (Exceptions 1 and 2)
- e. The laundry room in any facility not using off-site processing but serving more than 20 residents shall contain no less than 125 square feet of available floor space. (III)
  - f. Where linen is processed off the site, the following shall be provided:
  - (1) Soiled linen holding room. (III)
  - (2) Clean linen receiving, holding, inspection, and storage area. (III)

#### **60.7(5)** *General storage areas.*

- a. General storage areas totaling not less than 10 square feet per bed shall be provided. (III) Storage areas are not required to be located in the same area. (Exception 4)
- b. The equipment storage room space, found in subrule 60.6(7), may be included in this general storage area, but is not required to be located in the same area as referred to in 60.7(5) "a."
- c. Storage areas for linens, janitor's supplies, sterile nursing supplies, activities supplies, library books, office supplies, kitchen supplies, and mechanical plant accessories shall not be included as part of the general storage area and are not required to be located in the same area. (III)
- d. Thirty percent of the general storage area may be provided in a building outside the facility, readily and easily accessible by the personnel.
  - **60.7(6)** *Mechanical, electrical, and maintenance areas.* The following areas shall be provided:
- a. Boiler room or mechanical room, to include a maintenance area in facilities of less than 100 beds, and electrical equipment room. (III)
  - (1) These rooms may be used for noncombustible material storage.
- (2) Any noncombustible material shall not be stored close to or hinder access to any fuel-fired equipment or electrical panels. (III)
- (3) These areas shall not be included in calculating the 10 square feet per bed for general storage areas, as required under 60.7(5) "a."
  - b. Maintenance shop for facilities of 100 beds or more. (III) (Exception 2)
- c. Yard equipment storage may be provided in a separate room or building for yard maintenance equipment and supplies. This shall not be included in the general storage area. (III)

- d. No portable fuel-operated equipment shall be housed inside a facility unless it is separated by at least a two-hour fire separation approved by the state fire marshal's office. (III)
  - e. Rooms containing heating or cooling equipment shall be locked.
- **481—60.8(135C) Administration and staff area.** The size of an administration and staff area shall depend upon the number and types of beds within the supervised unit. An administration and staff area shall contain the following rooms or areas: (III)
  - 1. An administrator's office. (III) (Exception 1)
- 2. A business office, containing storage for office equipment and supplies. (III) (Exceptions 1 and 2)
- 3. A reception and information counter or desk, which may be combined in the business office. (III) (Exception 1) In facilities of 15 beds or less, a secured area shall be provided. This area shall contain work space for charting, record storage, and may contain medication storage. (III)
- 4. A designated room or area for conferences, and in-service training and space for desk for the use of auxiliary personnel such as activity directors, housekeepers, consultants, and volunteers. (III) (Exceptions 1 and 3)
- 5. A lounge shall be provided for staff. (III) (Exception 1) Toilet rooms with lavatory and water closet shall be provided for the staff. (III) (Exception 1)
  - 6. Closets or compartments for the safekeeping of coats and personal effects of staff. (III)
- **481—60.9(135C) Definition of public area.** The size of the public area shall depend upon the number and types of beds within the supervised unit. A public area shall contain the following rooms or areas: (III)
  - **60.9(1)** A vestibule area equipped with coat rack and shelf shall be available. (III)
- **60.9(2)** A public telephone shall be accessible to the residents within the facility to make personal calls. (III)
  - **60.9(3)** Drinking fountains shall be available. (III) (Exception 1)
  - **60.9(4)** Every facility shall provide a separate toilet for the public, with a lavatory and water closet.
- a. Each facility of eight beds or less shall designate a toilet, with lavatory and water closet for public use.
- b. Public toilets shall be accessible to and usable by the physically handicapped, equipped with appropriate equipment installed to meet the American Standards National Document A 117.1-1986. (III) (Exception 3)
- c. In facilities over 15 beds, there shall be public facilities for both men and women. (III) (Exception 4)
- d. Public facilities for both men and women must contain a clear floor area free from obstructions of 60 inches in diameter. (Exception 3)
- **481—60.10(135C)** Elevator requirements. All residential care facilities where resident facilities are located on other than the first floor shall have one or more electric or electrohydraulic elevators, as required. For purposes of this requirement, resident facilities include, but are not limited to, diagnostic, recreation, activity, resident dining, therapy rooms, or additional resident bedrooms. The first floor is that floor first reached from the main front entrance. (III) (Exceptions 1 and 4 apply to rule 60.10(135C)) Elevators, where installed, shall comply with the division of labor rules as promulgated in Iowa Code chapter 89A and 875—Chapters 71 to 77. (III)
- **481—60.11(135C) Mechanical requirements.** In new construction, prior to completion of the contract and final acceptance of the facility, the architect or engineer shall obtain from the contractor certification that all mechanical systems have been tested, balanced, and that the installation and performance of such systems shall conform to the requirements of the plans and specifications. Upon completion of the contract, the owner shall be furnished with a complete set of manufacturer's operating, maintenance, and preventive instructions and parts list with numbers and descriptions for each piece of equipment.

The owner shall also be provided with instruction in the operational use of systems and equipment as required. (III)

- **60.11(1)** Steam and hot water heating and domestic water heating systems shall comply with the following:
- a. Boilers shall be installed to comply with the division of labor rules promulgated in Iowa Code chapter 89 and 875—Chapters 200 to 209 and inspected annually. (III)
- *b*. Boiler feed pumps, condensate return pumps, fuel oil pumps, and hot water circulating pumps shall be connected and installed to provide standby service when any pump breaks down. (III) (Exception 4)
- c. Supply and return mains and risers of cooling, heating, and steam systems shall be valved to isolate the various sections of each system. Each piece of equipment shall be valved at the supply and return ends. (III) (Exception 3)

**60.11(2)** Thermal and acoustical insulation.

- a. Insulation shall be provided for the following, within the building: (Exception 4)
- (1) Steam supply and condensate return piping; (III)
- (2) Piping above 125° Fahrenheit, which is exposed to contact by residents; (II, III)
- (3) Chilled water, refrigerant and other process piping and equipment operating with fluid temperatures below ambient dewpoint; (III)
  - (4) Water supply and roof drainage piping on which condensation may occur; (III)
  - (5) Boilers, smoke-breaching and stacks; (III)
  - (6) Hot water piping above 180° Fahrenheit, and all hot water boilers, heaters, and piping; (III)
  - (7) Other piping, ducts, and equipment as necessary to maintain the efficiency of the system. (III)
- b. Insulation, including finishes and adhesives on the interior surface of ducts, pipes and equipment, shall have a flame-spread rating of 25 or less and a smoke develop rating of 50 or less, as determined by an independent testing laboratory in accordance with HFPA 255. (III) (Exception 4)
  - c. Insulation on cold surfaces shall include an exterior vapor barrier. (III)
- **60.11(3)** Air conditioning, heating and ventilating system. (All provisions in 60.11(3) "b" to 60.11(3) "s" are subject to Exception 4).
- a. The heating system shall be capable of maintaining a temperature of 78° Fahrenheit in all occupied areas at a winter design temperature of 10° Fahrenheit.
- *b*. The cooling system shall be designed to maintain all living spaces within the comfort zone. The comfort zone is defined in the ANSI/ASHRAE Standard 55-1981 or the 1985 ASHRAE Fundamentals Handbook. (III)
- c. All air supply and air exhaust systems shall be mechanically operated and ducted from a central system to and from each room. All fans serving exhaust systems shall be located at the discharge end of the system. The ventilation rates shown in Table 2 shall be considered as minimum acceptable rates, and shall not be construed as precluding the use of higher ventilation rates. (III)
- *d.* The bottoms of ventilation openings shall be not less than 3 inches above the floor of any room. (III)
- e. All central systems designed to heat and cool the building with recirculation of air shall be equipped with a minimum 2-inch deep, 8- to 11-pleat per foot, Class 2 Underwriters' Laboratories, self-extinguishing, nonwoven, cotton, downstream, or final filter with a minimum efficiency of 25 to 30 percent and average arrestance of 90 percent, tested in accordance with ASHRAE Standard 52-76. This does not preclude the additional use of a prefilter upstream of the air handling equipment to extend the service life of the downstream, or final filter. (III) (Exception 6)
- f. Any alternate ventilation system designed to attain an equivalent degree of odor control and purity of air to resident areas shall be considered for approval under conditions in 481—Chapters 57 and 63, rules 57.2(135C) and 63.2(135C). (III)
- g. Rooms containing fuel-fired heating units shall be provided with sufficient outdoor air to maintain combustion rates of equipment and reasonable temperatures in the room and adjoining areas. (III)

- h. Appropriate ventilation shall be provided in food storerooms to maintain temperature and humidity for the type of food being stored. (III)
- *i.* Outdoor ventilation air intakes shall be located as far away as practicable, but not less than 25 feet from the exhaust outlets of any ventilating systems, combustion equipment stacks or noxious fumes. The bottom of outdoor intakes serving central air systems shall be located as high as practical, but not less than 6 feet above grade level, or, if installed through the roof, 3 feet above roof opening. (III)
- *j.* The ventilation system shall be designed and balanced to provide the general pressure relationship to adjacent areas shown in the Pressure Relationship and Ventilation Table 2. Through-the-wall air conditioning units will not be used to calculate make up air. (III) (Exception 4)
- k. Corridors, attics, or crawl spaces shall not be used as a plenum to supply air to or exhaust air from any rooms. (III)
- *l.* The air system for resident rooms between smoke stop partitions shall be operated with common switches. (III)
  - m. Actuation of the fire alarm system shall shut down the air distribution system. (III)
- *n*. Air handling duct systems shall meet the requirements of NFPA Standard 90A and 90B. Supply and return registers shall not be at the same level and shall be designed to inhibit stratification. (III)
- o. Fire and smoke dampers shall be constructed, located and installed in accordance with the requirements of NFPA Standards 90A, 90B, and 101. (III)
- p. Range and dishwasher exhaust hood in food preparation centers shall have a minimum exhaust rate of 60 cubic feet per minute, per square feet of hood face area. Face area is defined for this purpose as the open area from the exposed perimeter of the hood to the average perimeter of the cooking surfaces. All hoods over cooking ranges shall be equipped with grease filters, a fire extinguishing system, and heat actuated fan controls. Cleanout openings shall be provided every 20 feet in horizontal exhaust duct systems serving hoods. Tempered air shall be supplied to balance the exhausted air. Special hood designs shall be evaluated. (III) (Exceptions 1 and 4)
- q. Mechanical ventilation over cooking equipment and dishwashing equipment shall be properly designed to take hot air out and not bring cold air down on hot food or dishes. (III)
- r. Filter beds shall be located upstream of the air conditioning equipment, unless a prefilter is employed. In this case the prefilter shall be upstream of the equipment and the main filter bed may be located further downstream. Filter frames shall be durable and carefully dimensioned and shall provide an airtight fit within enclosing ductwork. All joints between filter segments and the enclosing ductwork shall be gasketed or sealed to provide a positive seal against air leakage. (III)
- s. All under-the-slab perimeter ductwork shall be encased in lightweight or insulating concrete and sloped to a plenum low point. (III)
- t. Laundry rooms shall be supplied with sufficient tempered outside air to balance the amounts exhausted and for combustion. (III)
  - u. The amounts of air and pressure relationship as set forth in Table 2 shall be provided. (III)
- v. Condensate piping from cooling coils should be a minimum of 3/4 inch IPS and provided with cleanouts every 10 feet. (III)
  - w. Attics or crawl spaces shall not be used to house heating or cooling equipment.
  - x. All such areas must be accessible through a swinging door.

Table No. 2

PRESSURE RELATIONSHIPS AND VENTILATION OF CERTAIN

AREAS OF RESIDENTIAL CARE FACILITIES

Area Designation	Minimum Total Air Changes Per Hour Supplied to Room	All Air Exhausted Directly to Outdoors	Room Pressure in Relation To Adjacent Space
Resident Room	2	Optional	Equal
Resident Area Corridor	2	Optional	Equal
Lounge and Designated Smoking Area	6	Optional	Negative
Soiled Workroom or Soiled Holding	10	Yes	Negative
Toilet Room	10	Yes	Negative
Bathroom	10	Yes	Negative
Janitor's Closet	10	Yes	Negative
Food Preparation Center	10	Yes	Equal
Dishwashing Room	10	Yes	Negative
Laundry, General	10	Yes	Equal
Soiled Linen Sorting and Storage	10	Yes	Negative

#### **60.11(4)** Plumbing and other piping systems.

- a. Every facility shall have a complete interior plumbing system. (III)
- b. All plumbing and other piping systems shall be installed in accordance with the requirements of the Iowa state plumbing code and applicable provisions of local ordinances. (III) (Exception 3)
- *c*. All water supply systems pipes below grade or in concrete slabs shall be type K, soft copper. No joints will be allowed below the slab.
  - d. No plastic piping shall be used in any hot or cold water system in a licensed health facility. (III)
  - e. Water supply systems. Water supply systems shall meet the following requirements:
- (1) All facilities shall have a potable water source from a city water system or a private source which complies with the regulations and is approved by the department of natural resources. (III)
- (2) Systems shall be designed to supply water to the fixtures and equipment at a minimum pressure of 15 pounds per square inch during maximum demand periods. (III)
- (3) The temperature of the hot water to the resident lavatories, bath, and showers shall range between 110° Fahrenheit and 120° Fahrenheit. (III)
- (4) Plumbing fixtures in janitor's rooms and soiled workrooms shall be provided with hot water. (III)
- (5) Each water service main, branch main, riser and branch to a group of fixtures shall be valved. Stop valves shall be provided at each fixture. (III) (Exception 4)
- (6) Backflow preventers (vacuum breakers) shall be installed on hose bibbs, janitors' sinks, bedpan flushing attachments, hair care sinks, and on all other threaded fixtures to which hoses or tubing can be attached. (III)
- (7) Water softeners which supply cold water to the kitchen, drinking fountains, and ice machines shall not add sodium to the water. (III) (Exception 4)
- (8) Hot water distribution systems shall be arranged to provide hot water as specified at each hot water outlet at all times. (III) (See Table 3) A circulating pump in a hot water system shall meet these requirements. (Exception 4) A circulating pump is not required in facilities licensed for 15 or fewer beds.
- (9) The hot water system shall be designed to supply 110° Fahrenheit to 120° Fahrenheit hot water for bathing for all residents in accordance with their program of care. For facilities licensed for 15 beds or fewer, one bathing unit shall be provided for each five residents. (III) (Exception 4)

# Table No. 3 HOT WATER USE

#### Resident

	Areas	Dietary	Laundry
Gallons per HR. per Bed**	3	2	2
Temperature (degrees F)	110	120*	160***

\*Provisions shall be made to provide 180° Fahrenheit rinse water at dishwasher. (III) (May be provided by a separate booster heater.)

\*\*Quantities indicated for design demand of hot water are for general reference minimums and shall not substitute for accepted engineering design procedures using actual number and types of fixtures to be installed. Design shall also be affected by temperatures of cold water used for mixing, length of run and insulation relative to heat loss, etc. As an example, total quantity of hot water needed will be less when temperature available at the outlet is very nearly that of the source tank and the cold water used for tempering is relatively warm.

\*\*\*Provisions shall be made to provide 160° Fahrenheit hot water at the laundry equipment when needed. (This may be by steam jet or separate booster heater.) However, it is emphasized that this does not imply that all water used would be at this temperature.

Water temperatures required for acceptable laundry results will vary according to type of cycle, time of operation, and formula of soap and bleach as well as type and degree of soil. Lower temperatures may be adequate for most procedures in many facilities but the higher 160° Fahrenheit shall be available when needed for special conditions.

- f. Drainage systems. Drainage systems shall meet the following requirements:
- (1) Sewage shall be collected and disposed of in a manner approved by the department. Disposal into a municipal system shall be considered as meeting this requirement. (III)
- (2) Private sewage systems shall conform to the rules and regulations promulgated by the department of natural resources. (III)
- (3) Piping over food preparation centers, food serving facilities, food storage areas, and other critical areas shall be kept to a minimum and shall not be exposed. Special precautions shall be taken to protect these areas from possible leakage or condensation from necessary overhead piping systems. (III) (Exceptions 1 and 4)
  - (4) Plastic piping may be used in any drain-waste vent system. (III)
  - (5) Rescinded IAB 2/8/89, effective 3/15/89.
  - (6) Pipe cleanouts shall not be more than 50 feet apart in horizontal drain line. (III) (Exception 4)
- (7) Floor drains with appropriate grates shall be provided for all mechanical equipment rooms, laundries, kitchens, dishwashing areas, shower stalls and one in front of showers or bath units, soiled utility, basement floors and any other areas where water may collect on the floor. (III)
  - (8) Foundation drains shall be provided in accordance with subrule 60.3(10). (III)
  - (9) All tub and shower floor surfaces shall be specified or designated as slip-resistant surfaces.

#### 481—60.12(135C) Electrical requirement.

**60.12(1)** *General electrical requirements.* 

a. All materials, including equipment, conductors, controls, and signaling devices, shall be installed to provide a complete electrical system with the necessary characteristics and capacity to supply the electrical facilities shown in the specifications or indicated on the plans. All materials shall be listed as complying with available standards of Underwriters Laboratories, Inc., or other similarly established standards. (III)

- b. Electrical systems and equipment shall meet the minimum requirements of the National Electrical Code. (III)
- c. Drop cords, extension cords, or any type of flexible cord shall not be used as a substitute for fixed or hard wiring. Surge protectors may be used for computers and related devices, facsimile, photocopying and scanning machines, and other consumer electronic devices in a resident's room and other locations in a facility provided the surge protector is of metal construction and approved by Underwriters Laboratories, Inc., or other similarly recognized laboratories. Only fixed supplementary electric heating shall be installed. (III)
- d. Electrical metallic tubing or rigid heavy wall conduit shall be used throughout the interior of the facility. In areas used for patient care, the grounding terminals of all receptacles and all non-current-carrying conductive surfaces of fixed electrical equipment likely to become energized that are subject to personal contact, shall be grounded by a green insulated copper conductor. The grounding conductor shall be sized in accordance with the requirements of the 1990 "National Electrical Code" and installed in electrical metallic tubing with the branch-circuit conductors supplying these receptacles or fixed equipment. (III) (Exception 4)
- **60.12(2)** *Panel boards.* Panel boards serving lighting and appliance circuits shall be located on the same floor as the circuits they serve. (Exceptions 4 and 5) All circuits shall be identified on the panel door. (III) This requirement does not apply to emergency system circuits which can be centrally located. (Exception 4)
- **60.12(3)** *Lighting*. All spaces occupied by people, machinery, and equipment within buildings, approaches thereto, and parking lots shall have electric lighting. (III)
- a. All rooms in resident-occupied areas shall have general lighting switched at the entrance to each room. (III)
  - b. Reading lamps shall be provided in each resident's room. (III)
- c. Night lights shall be provided in corridors, at stairways, attendant's stations, residents' bedrooms, and hazardous areas with no less than 1 foot-candle throughout the area at all times. (III)
- d. At least one recessed light fixture for night lighting installed no higher than 18 inches above the floor shall be switched at the entrance to each resident's room. (III) (Exception 4)
  - *e.* Light fixtures shall be so equipped to prevent glare and to prevent hazards to the residents. (III) **60.12(4)** *Receptacles (Convenience outlet locations).*
  - a. Each resident room shall have grounding-type receptacles.
- b. Receptacles shall be located as follows: one on each side of the head of each bed; one for television, where used and one on another wall. For parallel adjacent beds, only one receptacle is required between the beds. (III) (Exception 3)
- c. Receptacles for general and emergency use shall be installed a maximum of 50 feet apart in all corridors and within 25 feet of ends of corridors. (III) (Exception 4)
- d. All receptacles within 6 feet of sinks or lavatories and those installed outside the building shall be protected by a local ground fault circuit interrupter. (III)
  - **60.12(5)** *Call system.*
- a. Where the facility has a call system installed, the system shall be electrical and all calls shall register at the operational center. (III)
- b. Calling systems which provide two-way voice communication shall be equipped with an indicating light at each calling station, and the lights shall remain lighted as long as the voice circuit is operating. (III)
  - **60.12(6)** *Emergency electric service.*
- a. Emergency electric on-site engine generator service shall be provided in any facility to provide electricity during an interruption of the normal electric supply that could affect the resident care or safety of the occupants. (Exceptions 1 and 4)
- b. In facilities less than 16 beds an emergency battery source of electricity shall be provided in accordance with Section 517-40 of the National Electric Code. (III)
- c. The required emergency generating set, including the prime mover, shall not be powered solely by natural gas or cooled solely by domestic water. (III) (Exception 4)

- d. The emergency generator set shall be of sufficient capacity to supply all lighting and power load demands of the emergency system and shall be located on the premises. (III)
  - e. Emergency electric service shall be provided to the distribution system for lighting as follows:
- (1) Exit ways and all necessary ways of approach thereto, including exit signs and exit direction signs, exterior of exits, exit doorways, stairways, and corridors, (III)
  - (2) Egress as required in NFPA Standard 101, (III)
  - (3) Dining and recreation rooms, (III)
  - (4) Attendant's station, (III)
  - (5) Generator set location, switch-gear location and boiler room, (III)
  - (6) Elevator, where required for emergency. (III)
- f. Emergency electric service shall be provided to the distribution system for equipment essential to life safety and for the protection of important equipment or vital materials as follows:
  - (1) Call board; (III)
- (2) Alarm system, including fire alarm actuated at manual stations; water flow alarm devices or sprinkler systems, where electrically operated; fire detection and smoke-detecting systems; paging or speaker systems intended for issuing instructions during emergency conditions; and alarms required for nonflammable medical gas systems, where installed; (III)
  - (3) Sewage and sump lift pump, where installed; (III)
  - (4) All required duplex receptacles in resident corridors; (III)
  - (5) One elevator; (III) (Exception 4)
- (6) Equipment, such as burners and pumps, necessary for operation of one or more boilers and their necessary auxiliaries and controls required for heating and sterilization; (III) and
  - (7) Equipment necessary for maintaining telephone service. (III)
  - g. Emergency electric service shall be provided to the distribution system for heating as follows:
- (1) Where electricity is the only source of power normally used for space heating, the emergency service shall provide for heating of resident rooms or an area of approximately 30 square feet per bed within the facility to accommodate all of the residents for the duration of the emergency; (III)
- (2) Emergency heating shall not be required where the facility is supplied by at least two service feeders, each supplied by separate sources from an integrated transmission distribution system, each capable of supplying required service, and each so routed, connected and protected that a fault any place between the utility energy source and the facility shall not cause an interruption of more than one of the electric service feeders. (III)
- h. The emergency electrical system shall be brought to full voltage and frequency and connected within 10 seconds through one or more primary automatic transfer switches. Power to pumps and burners may be brought to full power through the use of manual switches. (III)
- *i.* Receptacles connected to the emergency system shall be distinctively marked for identification. (III)
- *j*. Storage battery-powered lights, provided to augment the emergency lighting or for continuity of lighting during the interim of transfer switches, shall not be used as a substitute for the requirements of a generator. (III)

### 481—60.13(135C) Codes and standards.

- **60.13(1)** *General.* Nothing stated herein shall relieve the sponsor from compliance with building codes, ordinances, and regulations which are enforced by city, county, or state jurisdictions. Where such codes, ordinances, and regulations are not in effect, it shall be the responsibility of the sponsor to consult one of the national building codes generally used in the area for all components of the standards set forth herein, provided the requirements of the code are not inconsistent with the minimum standards herein. (III)
- **60.13(2)** List of referenced codes and standards. The latest revisions of the following codes and standards have been used in whole or in part in these rules and shall be used as references where specific details are required or interpretation is needed:

American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Handbooks.

American Society for Testing and Materials (ASTM) Standard No. E 84-61, Method of Test for Surface Burning Characteristics of Building Material.

International Conference of Building Officials (ICBO) Uniform Building Code.

Iowa State Building Code.

Iowa State Plumbing Code.

Iowa State Bureau of Labor Standards.

National Fire Protection Association (NFPA) Standard No. 70, National Electrical Code.

National Fire Protection Association (NFPA) Standard No. 90A and Installation of Air Conditioning and Ventilating Systems.

National Fire Protection Association (NFPA) Standard No. 101, Life Safety Code.

Food Service Sanitation Manual (DHEW Publication No. (FDA) 8-2081).

Underwriters Laboratories, Inc. listings.

American National Standards Institute (ANSI) Standard No. A117.1—1986, American Standard Specifications for Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped.

Copies of nongovernment publications can be obtained from the various agencies at the addresses listed:

American Society for Testing and Materials 1916 Race Street Philadelphia, Pennsylvania 19103

National Fire Protection Association Batterymarch Park Quincy, Massachusetts 02269

Underwriters Laboratories, Inc. 333 Pfingsten Road Northbrook, Illinois 66062

American National Standards Institute 1430 Broadway New York, New York 10018 International Conference of Building Officials (ICBO) Uniform Building Code 5360 South Workman Mill Road Whittier, California 90601

American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) 1791 Tullie Circle N.E. Atlanta, Georgia 30329

Except as noted in the list, copies of government publications can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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