Housekeeping/Laundry/Maintenance

44:04:02.02. Sanitation. The facility must be designed, constructed, maintained, and operated to minimize the sources and transmission of infectious diseases to residents, patients, personnel, visitors, and the community at large. This requirement shall be accomplished by providing the physical resources, personnel, and technical expertise necessary to ensure good public health practices for institutional sanitation.

44:04:02.03. Cleaning methods and facilities. The facility must have equipment, work areas, and complete written procedures for cleaning, sanitizing, disinfecting, or sterilizing all work areas, equipment, utensils, dressings, medical devices, and solutions used for residents’ or patients’ care. Common use equipment shall be disinfected or sterilized after each use. Hospitals and nursing facilities must have separate clean and soiled utility rooms.

44:04:02.08. Linen. The supply of bed linen and towels shall equal three times the licensed capacity. The supply of bed linen for an assisted living center shall equal two times the licensed capacity. There must be written procedures for the storage and handling of soiled and clean linens. Facilities must contract with commercial laundry services or the laundry service of another licensed health care facility for all common use linens if laundry services are not provided on the premises. Facilities providing laundry services must have adequate space and equipment for the safe and effective operation of the laundry service. Commingled patients’ or residents’ personal clothing, common-use linen, such as towels, washcloths, gowns, bibs, protective briefs, and bedding, and any isolation clothing must be processed by methods that assure disinfection. If hot water is used for disinfection, minimum water temperatures supplied for laundry purposes must be 160 degrees Fahrenheit (71 degrees centigrade). If chlorine bleach is added to the laundry process to provide 100 parts per million or more of free chlorine, the minimum hot water temperatures supplied for laundry purposes may be reduced to 140 degrees Fahrenheit (60 degrees centigrade). The department may approve an alternative commercial formula if the formula is demonstrated by bacterial pathogen testing to be substantially equivalent as a disinfectant. Any resident's personal clothing that is not commingled may be processed according to manufacturer's recommendations using water temperatures and detergent in quantity as recommended by the garment or detergent manufacturer. There must be distinct areas for the storage and handling of clean and soiled linens. Those areas used for the storage and handling of soiled linens must be negatively pressurized. Special procedures must be established for the handling and processing of contaminated linens. Soiled linen must be placed in closed containers prior to transportation. To safeguard clean linens from cross contamination, they must be transported in containers used exclusively for clean linens, must be kept covered with dust covers at all times while in transit or in hallways, and must be stored in areas designated exclusively for this purpose. Written requests for any modification of the requirements of this section must be received and approved by the department before any changes are made.

44:04:02.14. Refuse and waste disposal. Garbage, refuse, and waste must be handled and disposed of in a safe and sanitary manner. Medical waste that is categorized as regulated in article
74:35 must be disposed of as specified in that article. Final disposal of all refuse and waste must comply with articles 74:27 and 74:28. Putrescible garbage must be removed from the premises at least twice a week from April 1 to September 30, inclusive. Any modification of the requirement for twice-weekly garbage removal must be received and approved by the department before modifications are made.

protect against the entrance into the facility and the breeding or presence on the premises of rodents, flies, roaches, and other vermin. The facility may use chemical substances of a poisonous nature in accordance with the requirements of this section to control or eliminate various types of vermin. The substances must be properly colored and labeled to identify them as poisons, must be used and stored in a safe manner, and may not be stored with food or drugs used for human consumption. Extreme care must be taken to prevent any poisons from contaminating food or food products.

**Housekeeping: New Construction**

**44:04:13:06. Laundry.** The laundry must include the following:

1. Soiled linen holding room with a storage capacity of 1.75 square feet (0.1626 square meters) of floor area for each bed, to be used for storage, sorting, and weighing of soiled linen;
2. Linen cart storage;
3. Janitor's closet with storage for housekeeping supplies and equipment and a floor receptor or service sink convenient to the laundry;
4. Storage for laundry supplies;
5. Lavatories conveniently accessible to soiled, clean, and processing rooms; and
6. Laundry processing room with separate soiled and clean work areas with commercial equipment. All clothes dryers must have galvanized metal vent pipes for exhaust. The space and equipment layout must be sized and designed to produce quality linen with a work flow that minimizes potential for cross-contamination of clean linen by soiled linen, contaminated equipment, contaminated air, or splash. The laundry department must be capable of processing 10 pounds (4.54 kilograms) of soiled linen for each bed during a normal work day. Modifications to the standard may be made if the laundry serves only an assisted living center or if the services are contracted to an outside organization. Modification must be requested in writing by the facility and approved by the department.

**44:04:13:24. Incinerators.** Incinerators must be gas, electric, or oil-fired and must be capable of, but need not be limited to, the complete destruction of pathological wastes. Design and construction of incinerators must be in accordance with requirements of article 74:35.

**Corridors, Floors, and Signage**

1. Provide handrails firmly attached to the walls on both sides of all resident corridors in nursing facilities;

**Lighting, Noise, Temperature (HVAC), and Odors**
Plumbing must be sized, installed, and maintained to carry required quantities of water to required locations throughout the facility. Plumbing may not constitute a source of contamination of food equipment or utensils or create an unsanitary condition or nuisance.

44:04:02:11. Water supply. The facility's water supply must be obtained from a public water system or, in its absence, from a supply approved by the Department of Environment and Natural Resources. Private water supplies must have a water sample bacteriologically tested at least monthly. The volume of water must be sufficient for the needs of the facility, including fire fighting requirements. The hot water system must be capable of supplying the work and patient or resident areas with water at the required temperatures. Maximum hot water temperatures at plumbing fixtures used by patients and residents may not exceed 125 degrees Fahrenheit (52 degrees centigrade). The minimum temperature of hot water for patient and resident use must be at least 100 degrees Fahrenheit (38 degrees centigrade).

44:04:02:12. Ventilation. Electrically powered exhaust ventilation must be provided in all soiled areas, wet areas, toilet rooms, and storage rooms. Clean storage rooms may also be ventilated by supplying and returning air from the room space.

44:04:02:13. Lighting. Spaces occupied by people, machinery, and equipment within buildings and their approaches and parking lots must have artificial lighting at a level for general safety. Patient or resident bedrooms must have general lighting and night lighting. A reading light must be provided for each patient or resident who can benefit from one. Required exits must be equipped with continuous emergency lighting. Emergency power must be provided if the main source of power fails.

44:04:02:16. Sewage disposal. Sewage must be disposed of in a public sewage works system or, in its absence, in a manner approved by the department in accordance with SDCL chapter 34A-2. article must be constructed, arranged, equipped, maintained, and operated to avoid injury or danger to the occupants. The extent and complexity of occupant protection precautions is determined by the services offered and the physical needs of the patients and residents admitted to the facility.

(5) Provide grounded or double-insulated electrical equipment or protect the equipment with ground fault circuit interrupters. Ground fault circuit interrupters must be provided in wet areas and for outlets within six feet of sinks;

(6) Install an electrically activated audible alarm on all unattended exit doors in nursing facilities. Other exterior doors must be locked or alarmed. The alarm must be audible at a designated nurses' station and may not automatically silence when the door is closed;

(7) Portable space heaters and portable halogen lamps for illumination in resident rooms and common use areas may not be used in a facility;

(8) Household-type electric blankets or heating pads may not be used in a facility;

(9) Any light fixture located over a patient or resident bed, in any bathing or treatment area, in a clean supply storage room, in any laundry clean linen storage area, or in any medication set-up area must be equipped with a lens cover or a shatterproof lamp; and
(10) Any clothes dryer must have a galvanized metal vent pipe for exhaust.

44:04:02:21. Heating and cooling. The temperature in any occupied space in the facility must be maintained between 68 and 80 degrees Fahrenheit during waking hours and not lower than 64 degrees Fahrenheit during sleeping hours. Individual resident space may be maintained outside the required range when desired by the occupant.

Amenities

Outdoor Area

New Construction: Facility-Wide

44:04:13:08. Engineering service and equipment areas. The requirements for engineering service and equipment areas for each facility are as follows:

(1) A boiler room with two remote doors to the exit or exit access;

(2) An engineer's office which may be combined with a maintenance shop;

(3) Mechanical and electrical equipment rooms;

(4) A maintenance shop with at least one room;

(5) A storage room for building maintenance supplies;

(6) A refuse room for trash storage which is conveniently located to the service entrance; and

(7) A yard equipment storage room. The boiler room and other rooms containing storage of combustible materials may not contain ventilation equipment or unprotected ventilation ducts serving other areas, the main electrical switchboard, or emergency electrical equipment.

44:04:13:09. Corridor restrictions. Drinking fountains, telephone booths, fire extinguisher cabinets, and vending machines must be located so that they do not project into the required width of exit corridors. Handrails installed in corridors must return to the wall at the ends. Handrails must be installed with the top 34 to 38 inches, inclusive, from the floor. Handrails must be installed with 1½ inch spacing between the wall and the handrail.

44:04:13:14. Ceiling heights. Boiler room ceilings may not be less than 2 feet 6 inches (0.76 meters) above the main boiler header and connecting piping, with a minimum height of 9 feet (2.74 meters). The ceilings of corridors, storage rooms, patient toilet rooms, and other minor rooms may not be less than 7 feet, 8 inches (2.34 meters). The ceilings of all other rooms may not be less than 7 feet, 10 inches (2.39 meters).

44:04:13:15. Insulation. Boiler rooms, food preparation centers, and laundries must be insulated and ventilated to prevent any floor surface above them from exceeding a temperature of 85 degrees Fahrenheit (29.4 degrees centigrade). All combustible insulation within the building must be covered with a fire-resistive material giving fire protection equivalent to 0.5 inch (0.01 meters).
gypsum board, unless tested and acceptable by International Building Code, 2000 edition, 2603.4 for use without a thermal barrier as installed. A vapor barrier of at least 4 mil polyethylene or an equivalent material must be used to cover any exterior wall and any ceiling where insulation for the roof is applied directly above the habitable space ceiling. If roof insulation is installed above the roof decking, no vapor barrier is required. A vapor barrier of at least 6 mil polyethylene or an equivalent material must be installed under the concrete slab on grade flooring systems and to cover soils exposed in crawl spaces.

44:04:13:16. Fire extinguisher equipment. Fire extinguisher equipment must be installed and maintained by the following minimum standards:

(1) Portable fire extinguishers must have a minimum rating of 2-A:10-B:C;

(2) Fire extinguisher equipment must be inspected monthly and maintained yearly;

(3) Approved fire extinguisher cabinets must be provided throughout the building with one cabinet for each 3,000 square feet (278.7 square meters) of floor space or fraction thereof. The fire resistance rating of corridor walls must be maintained at recessed fire extinguisher cabinets. The glazing in doors of fire extinguisher cabinets must be wire glass or other safety glazing material. Fire extinguisher cabinets must be identified with a sign mounted perpendicular to the wall surface above the cabinet; and

(4) Halon chemical extinguishers may be installed and used only in those remote areas that do not present a hazard to staff, patients, or residents.

44:04:13:17. Floor surface finish. Floors must be easily cleanable and must have the wear resistance appropriate for the location involved. Floors in kitchens and related spaces must be water-resistant. In all areas where floors are subject to wetting, they must have a nonslip finish. Adjacent dissimilar floor materials must be flush with each other to provide a level floor surface.

44:04:13:18. Wall and ceiling finish. Walls must be washable, and in the immediate area of plumbing fixtures the finish must be moisture proof. Wall bases in dietary areas must be free of spaces that can harbor insects. Wall bases in any areas used for surgical and obstetrical procedures must be integral with either the wall or the floor surface material and must be without voids that can harbor harmful bacteria. All surgical, obstetrical, emergency, nursery, X-ray film processing rooms, and dietary ceilings must be washable or easily cleanable. This requirement does not apply to boiler rooms, mechanical and building equipment rooms, shops, and similar spaces. A ceiling in any surgical, central sterilization, isolation, and X-ray film processing room must be a gypsum board surface.

44:04:13:19. Elevators. All facilities where either patients’ or residents’ beds or a critical service, such as operating, delivery, diagnostic, recreation, patient or resident dining, dietary, laundry, central storage, or therapy rooms, is located, other than on the first floor, must have electrical or electrohydraulic elevators. Elevator cars and platforms must be constructed of noncombustible material, except that material treated with fire retardant may be used if all exterior surfaces of the car are covered with metal. Cars of hospital-type elevators must have inside dimensions that will accommodate a patient’s bed and attendants and must be at least 5 feet (1.52 meters) wide by 7 feet 6 inches (2.29 meters) deep. The car door must have a clear opening of not less than 3 feet 8 inches (1.12 meters). Elevators must have automatic two-way leveling with accuracy within plus or
minus 0.5 inch (0.01 meters). Elevators, except freight elevators, must be equipped with a two-way special service switch to permit cars to bypass all landing button calls and to be dispatched directly to any floor.

44:04:13:25. **Steam and hot water systems.** Boilers must have the capacity to supply the normal requirements of all systems and equipment. Supply and return mains and risers of space heating and process steam systems must be valved to isolate the various sections of each system. Each piece of equipment must be valved at the supply and return end. Boilers, smoke breeching, steam supply piping, high pressure steam return piping, and hot water space heating supply and return piping must be insulated with insulation having a flame spread of 25 or less and a smoke emission rating of 50 or less using NFPA 255, 2000 edition, "Standard Method of Test for Surface Burning Characteristics of Building Materials" or equivalent test procedures.

44:04:13:26. **Ventilating systems.** The ventilating systems must maintain temperatures, minimum air changes of outdoor air an hour, minimum total air changes, and relative humidities as follows:

1. Operating rooms - 68 to 73 degrees Fahrenheit (20 to 22.8 degrees centigrade), 3 outdoor, 15 total, and 45 to 60 percent humidity;

2. Delivery rooms - 68 to 73 degrees Fahrenheit (20 to 22.8 degrees centigrade), 3 outdoor, 15 total, and 30 to 60 percent humidity;

3. Recovery rooms - at least 70 degrees Fahrenheit (21.1 degrees centigrade), 2 outdoor, 6 total, and 30 to 60 percent humidity;

4. Nursery rooms - at least 75 degrees Fahrenheit (23.9 degrees centigrade), 2 outdoor, 6 total, and 30 to 60 percent humidity;

5. Intensive care rooms - 70 to 75 degrees Fahrenheit (21.1 to 23.9 degrees centigrade), 2 outdoor, 6 total, and 30 to 60 percent humidity.

For all other occupied areas, the facility must be able to maintain a minimum temperature of 75 degrees Fahrenheit (23.9 degrees centigrade) at winter design conditions with a minimum of at least two total air changes an hour. All air supply and air exhaust systems must be mechanically operated. All fans serving exhaust systems must be located at the discharge end of the system. Outdoor ventilation air intakes, other than for individual room units, must be located as far away as practicable but not less than 25 feet (7.62 meters) from plumbing vent stacks and the exhausts from any ventilating system or combustion equipment. The bottom of outdoor intakes serving central air systems must be located as high as possible but not less than 6 feet (1.83 meters) above the ground level or, if installed through the roof, 3 feet (0.91 meters) above roof level. The mechanical ventilation systems must be designed and balanced to provide make-up air and safe pressure relationships between adjacent areas to preclude the spread of infections and assure the health of the occupants. Room supply air inlets, recirculation, and exhaust air outlets must be located with the grill or diffuser opening not less than 3 inches (0.08 meters) above the floor. Corridors may not be used to supply air to or exhaust air from any room, except that exhaust air from corridors may be used to ventilate bathrooms, toilet rooms, or janitor's closets opening directly on corridors. Continuous mechanical exhaust ventilation must be provided in all soiled areas, wet areas, and storage rooms. In unoccupied service areas, ventilation may be reduced or
discontinued when the health and comfort of the occupants are not compromised. Indirect fuel-fired ventilation units may be used only when safety equipment is provided, the fuel is lighter than air, and the unit is separated from the building by one-hour fire-resistive construction when the unit is mounted on the roof. Laboratories must be ventilated at a rate of six total air changes an hour. All ventilation air from the laboratory must be directly exhausted to the outside. If this ventilation rate does not provide the air required to ventilate fume hoods and safety cabinets, additional air must be provided. A filter with 90 percent efficiency must be installed in the air supply system at its entrance to the media transfer room. Hoods in which highly radioactive materials are processed must have a face velocity of 150 feet a minute (0.76 meters a second), have a high-efficiency (99.97%) filter, and each hood must have an independent exhaust system with the fan installed at the discharge point of the system. Hoods used for processing infectious materials must have a face velocity of 75 feet a minute (0.38 meters a second). Cooking appliances installed in staff break and activities rooms must be provided with exhaust ventilation to the exterior of the building to remove cooking odors, heat, and moisture. Cooking appliances, other than microwave ovens, installed in occupational therapy and patient or resident rooms must be exhausted to the exterior to remove cooking odors, heat, and moisture. Vehicle parking garages must be provided with carbon monoxide detection to activate exhaust ventilation of six air changes each hour or to open the garage door if the area of the garage is under 1000 square feet. Signs must be posted at the front of parking spaces advising the driver to shut off the engine. Crawl spaces must be provided with mechanical ventilation at least 0.5 air changes each day or be provided with open perimeter venting as required by the International Building Code.

44:04:13:27. Filters. Ventilation systems using a recirculated central air system must be equipped with a minimum of two filter beds. Filter bed number one must be located upstream of the conditioning equipment and must have a minimum efficiency of 30 percent. All supply air units must have a minimum of 30 percent effective filters. All central ventilation systems must have a minimum of 80 percent effective filters. All common use areas, i.e., dining, lounges, and corridors, must have 80 percent effective filters on air supply systems. All air supply systems serving solely administrative areas must have a minimum of 30 percent effective filters. One-inch furnace filter media is required for forced air furnaces and ventilation systems in assisted living facilities. These filter efficiencies must be warranted by the manufacturer and must be based on the ASHRAE 52.1, 1992 edition, American Society of Heating, Refrigeration, and Air Conditioning Engineers dust spot test method with atmospheric dust. Filter frames must be durable and carefully dimensioned and must provide an airtight fit with the enclosing duct work. All joints between filter segments and the enclosing duct work must be gasketed or sealed to provide a positive seal against air leakage. A manometer must be installed across each filter bed serving central air systems.

44:04:13:28. Ducts. Ducts must be constructed of iron, steel, aluminum, or other approved metal or materials as defined in NFPA 101 Life Safety Code 2000 edition. Duct linings, coverings, vapor barriers, and the adhesives used for applying them must have a flame spread classification of not more than 25 and a smoke developed rating of not more than 50 using NFPA 255, 2000 edition, "Standard Method of Test for Surface Burning Characteristics of Building Materials." A fire and smoke damper must be provided on each opening through each required two-hour or greater fire-resistive wall or floor and on each opening through the walls of a vertical shaft, unless the shaft has a fire and smoke damper at the floor level. Ducts which pass through a required smoke barrier must be provided with smoke dampers. Access for maintenance must be provided at all dampers. Duct systems serving hoods must be constructed of corrosion resistant material. Duct systems serving hoods in which highly radioactive materials and strong oxidizing agents are used must be
constructed of stainless steel for a minimum distance of 10 feet (3.05 meters) from the hood and must be equipped with washdown facilities. Cold air ducts must be insulated wherever necessary to maintain the efficiency of the system or to minimize condensation problems.

**44:04:13:29. Food service ventilation.** The air from dining areas may be used to ventilate the food preparation areas only after it has been passed through a filter with 80 percent efficiency. Exhaust hoods in food preparation centers must have a minimum exhaust rate of 50 cubic feet a minute for each square foot (0.25 cubic meters a second for each square meter) of hood face area. All hoods over cooking ranges must be equipped with fire extinguishing systems interconnected to shut off the fuel source. Cleanout openings must be provided every 20 feet (6.10 meters) in horizontal exhaust duct systems serving hoods.

**44:04:13:32. Recirculated air systems.** All recirculated air systems serving more than one room must be equipped with automatic shutdown and smoke dampers activated by a smoke detector and the building fire alarm system.

**44:04:13:33. Plumbing fixtures.** The material used for plumbing fixtures must be of nonabsorptive acid-resistant material. Lavatories and sinks required in patient or resident care areas must have the water supply spout mounted so that the discharge is a minimum of 5 inches (0.13 meters) above the rim of the fixture. Handwashing facilities used by medical and care staff, patients, residents, and food handlers must be equipped with hands-free controls. Single lever devices may be used. If blade handles are used, they may not exceed 4.5 inches (0.11 meters) in length, except that handles on scrub sinks and clinical sinks may not be less than 6 inches (0.15 meters) long. Clinical sinks must have an integral trap in which the upper portion of a visible trap seal provides a water surface. If blade handles are used, proper clearance must be maintained for operation. Aerators are not approved for use on faucet spouts. Paper towel dispensers or handdrying devices must be provided at all lavatories and sinks used for handwashing. Mirrors or paper towel dispensers with reflective surfaces may not be provided at handwashing facilities in the laboratory, nursery, clean utility, central sterilizing, dietary, or other critical areas where grooming could potentially cause contamination. Water closets must be an elongated bowl type and be equipped with an open front seat. Any shower stall that is not required to be accessible must have curb heights not more than five inches above the finished floor. The shower floor elevation and bathroom finished floor elevation must be level where possible but the difference in elevation cannot exceed three inches.

**44:04:13:34. Water supply systems.** Water supply systems must supply water to the fixtures and equipment on the upper floors at a minimum pressure of 15 pounds a square inch (1055.9 kilograms a square meter) during maximum demand periods. Each water service main, branch main, riser, and branch to a group of fixtures must be valved. Stop valves must be provided at each fixture. Hot, cold, and chilled water piping and waste piping on which condensation may occur must be insulated. Insulation of cold and chilled water lines must include an exterior vapor barrier. Water supply systems in a health care facility must maintain one part per million free residual chlorine at remote point-of-use fixtures in the facility or may use another bacteriological control method (increasing water temperature range from 122 degrees to 125 degrees Fahrenheit [50-52 degrees centigrade] is acceptable) that has been demonstrated to be equivalent in control of *Legionella*. The facility must document water temperatures to verify the hot water temperature is being maintained within the acceptable range. The chlorine testing must be done daily using photocell and light source DPD (N, N, Diethyl-pphenylenediamine) test kits and the test results
logged. When testing demonstrates that consistent chlorine levels are maintained, the frequency of testing may be reduced to a level necessary to demonstrate compliance.

44:04:13:35. **Vacuum breakers.** Antisiphon devices or backflow preventers must be installed on hose bibs and on all fixtures to which hoses or tubing can be attached such as laboratory and janitors’ sinks, bedpan flushing attachments, handheld showers, and autopsy tables. Antisiphon devices or backflow preventers must be installed on all plumbing and equipment where any possibility exists for contamination of the potable water supply.

44:04:13:36. **Hot water systems.** Hot water distribution systems over 50 feet (15.24 meters) long must recirculate to provide hot water at each fixture at all times. The hot water heating equipment must have sufficient capacity to supply water at the temperature and amounts indicated in the following:

1. Three gallons an hour (0.0033 liters a second) for each bed at a temperature range of 122-125 degrees Fahrenheit (50-52 degrees centigrade);

2. Two gallons an hour (0.0020 liters a second) for each bed for dietary use at a temperature of 140 degrees Fahrenheit (60 degrees centigrade); and

3. Two gallons an hour (0.0020 liters a second) per bed for laundry at a temperature of 160 degrees Fahrenheit (71 degrees centigrade). Storage tanks provided must be fabricated of noncorrosive metal or lined with noncorrosive material.

44:04:13:37. **Drainage systems.** Drain lines from sinks in which acid wastes may be poured must be fabricated from an acid resistant material. Piping over operating and delivery rooms, nurseries, food preparation centers, food serving facilities, food storage areas, and other critical areas must be kept to a minimum and may not be exposed. Special precautions must be taken to protect these areas from possible leakage of necessary overhead piping systems. Floor drains may not be installed in operating and delivery rooms. Building sewers must discharge into a community sewerage system. Where such a system is not available, a facility providing sewage treatment which conforms to applicable local and state regulations is required. Water from roof systems must be collected and discharged away from the building foundation. Rain gutters with downspouts and splash blocks must be provided for pitched roof systems. Provisions must be made to avoid having water accumulated on sidewalks and parking areas around the building. Perforated drain tile must be provided at the foundation and routed to a building sump pit or grade surface, if site slope allows. The building sewer system must have a cleanout located outside the perimeter of the building foundation.

44:04:13:40. **Electrical distribution system.** All material including equipment, conductors, controls, and signaling devices must 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 must be listed as complying with applicable standards of Underwriters’ Laboratories, Inc., or other similarly established standards. Fixed and mobile X ray units must be connected by means of independent feeders or circuits. Circuit breakers or fusible switches that provide disconnecting means and overcurrent protection for conductors connected to switchboards and distribution panel boards must be enclosed or guarded to provide a dead front type of assembly. The main switchboard must be located in a separate enclosure accessible only to authorized persons. The switchboard must be convenient for use, readily accessible for
maintenance, clear of traffic lanes, and in a dry ventilated space devoid of corrosive fumes or gases. Overload protective devices must be designed for operating in the ambient temperature conditions. Lighting and appliance panel boards must be provided for the circuits on each floor. This section does not apply to emergency system circuits.

44:04:13:41. **Lighting.** All spaces occupied by people, machinery, and equipment within buildings, the approaches to the buildings, and parking lots must have artificial lighting approved by the department. Patients' or residents' bedrooms must have general lighting of at least 10 footcandles (0.929 lumens per square meter) and night lighting. Plug-in night lights may be provided for residents in assisted living facilities. Where task illumination is required, a light with an intensity of at least 30 footcandles (2.79 lumens per square meter) at the work surface must be provided for each patient or resident. At least one luminaire for night lighting must be switched at the entrance to each patient or resident room. Patients' or residents' reading lights and other fixed lights not switched at the door must have switch controls convenient for use at the luminaire. All switches for control of lighting in patient or resident areas must be of the quiet operating type. Illumination of at least 100 footcandles (9.29 lumens per square meter) must be provided at the medication set-up area. Illumination of at least 50 footcandles (4.65 lumens per square meter) must be provided at the activity room work tables. illumination of at least 30 footcandles (2.79 lumens per square meter) must be provided in dining areas, physical and restorative therapy, and at bathing facilities.

44:04:13:42. **Receptacles or convenience outlets.** Each operating, delivery, and emergency room must have at least three receptacles. In locations where mobile X ray is used, an additional receptacle, distinctively marked for X ray use, must be provided. Each patient or resident bedroom must have duplex receptacles as follows: one on each side of the head of each bed; receptacles for luminaires and motorized beds, if used; and one receptacle on another wall. Single polarized receptacles marked for use of X ray only must be located in corridors of patient or resident areas so that mobile equipment may be used in any location within a patient or resident room. If the same mobile X ray unit is used in operating rooms and in nursing areas, all receptacles for X ray use must be the same. Where capacitive discharge or battery-powered mobile X ray units are used, polarized receptacles are not required. Duplex receptacles for general use must be installed approximately 50 feet apart in all corridors and within 25 feet of ends of corridors. Receptacles in patient rooms of pediatric units must be of the safety type. Receptacles in corridors of pediatric units must be of a safety type or must be controlled by switches located at a nurses' station or another supervised location.

44:04:13:45. **Fire alarm systems.** A manually operated, electrically supervised fire alarm system must be installed in each facility.

44:04:13:48. **Pipe requirements.** All piping systems for potable water must be installed to eliminate any dead-end runs of piping. Before placing potable water systems in service, the piping system must be disinfected in accordance with the South Dakota Plumbing Commission standards in article 20:54 and certification must be available from the installer showing the method used, date, test procedure used to verify chlorine concentrations, and date the system was flushed and placed in service. Pipe covering, vapor barriers, and adhesives used for applying them must have a flame spread of not more than 25 and a smoke emission factor of not more than 50 when tested in accordance with the NFPA 101 Life Safety Code, 2000 edition.

44:04:13:49. **Detached structures.** A detached structure or auxiliary building used for combustible storage or vehicle parking built adjacent to, but not directly attached to, a health care
facility must either be separated from the facility by a minimum distance of 20 feet or provided with two-hour fire rated separation.

44:04:13:50. Soil treatment for termite control. Any wood product debris must be removed from the area inside of the building foundation. The soil beneath the vapor barrier and the foundation must be treated with a termiticide. The applicator shall document the product used, the quantity and the concentration applied, the date of application, the date of soil covering to protect against flooding or dilution of the treatment, and the anticipated effective period of the soil treatment, including warranty if available.