CHAPTER 44:04:13

CONSTRUCTION STANDARDS

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44:04:13:01. Application of chapter. This chapter applies to all new facilities and to renovations, additions, and changes in space use of currently approved existing facilities. Accessible and usable accommodations must be available to the public, staff, and patients or residents with disabilities. Minimum requirements, except as noted in this chapter, are those in "ADA Accessibility Guidelines for Buildings and Facilities," 28 C.F.R. Part 36, Appendix A, as published in 56 Fed. Reg. 35605 to 35690, inclusive (July 26, 1991), http://www.usdoj.gov/crt/ada/req3a.html#Anchor-Appendix-52467.


Facilities providing off-site services must comply with "Business Occupancy standards or other occupancies standards as applicable for the use of the facility from" NFPA 101 Life Safety Code, 2000 edition, and construction standards of the International Building Code, 2000 edition for the buildings where these services are offered.

Source: SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 24 SDR 90, effective January 4, 1998; 26 SDR 96, effective January 23, 2000; 27 SDR 59, effective December 17, 2000; 29 SDR 81, effective December 11, 2002.

General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.


44:04:13:02. Patient or resident rooms. A patient or resident room must meet the following requirements:

(1) A maximum room capacity not exceeding two patients or residents;
(2) A minimum area, exclusive of toilet rooms, closets, lockers, wardrobes, or vestibules, of 120 square feet (10.8 square meters) in one-bed rooms and 200 square feet (18.58 square meters) in two-bed rooms. Sleeping rooms designed as part of a suite of rooms must have a minimum area of 100 square feet in one-bed rooms and 180 square feet in two-bed rooms;

(3) Each bed in two-bed rooms must have cubicle curtains or equivalent built-in devices for full visual privacy that allow access to the toilet room and corridor without entering the roommates space. Assisted living centers are not required to provide privacy curtains in two-bed rooms unless requested by the resident;

(4) Have a window whose sill is not higher than 3 feet (0.91 meters) above the floor. The floor must be above grade;

(5) Have a call button at each bed for nurses' calling stations;

(6) Have a toilet room and lavatory. Patient or resident toilet rooms must be directly accessible for each patient or resident without going through the general corridor. In remodeling projects, one toilet room with handsinks in patient or resident rooms may serve two patient or resident rooms, but not more than four beds. For new construction, toilet rooms may not be shared between patient or resident rooms. The lavatory may be omitted from the toilet room if one is provided in each patient or resident room. The minimum dimensions of any room containing only a water closet are 3 feet by 6 feet (0.91 meters by 1.83 meters). All new construction of toilet rooms must meet accessibility standards required in § 44:04:13:01;

(7) Have a locker or closet for each patient or resident; and

(8) Have each patient or resident room door located not more than 150 feet (45.72 meters) from the nurse's station.

Modification of the requirements listed in subdivisions (1) to (8), inclusive, of this section may be approved for special care rooms by the department after receipt of a written request.


General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.

44:04:13:03. Service area in care units. Each care unit must contain a service area which includes the following, except when the service is not required for licensure category:

(1) Nurses' station with convenient access to handwashing facilities;

(2) Nurses' charting;

(3) Doctors' charting;

(4) Communications;
(5) Storage for supplies and nurses' personal effects;

(6) Nurses' toilet room;

(7) Nurses' office;

(8) Clean workroom for the storage and assembly of supplies for nursing procedures which contains a work counter and sink;

(9) Soiled workroom which contains a work counter with a two-compartment sink with drainboards on each side, handwashing facility, a waste receptacle, soiled linen receptacles, a clinical sink with an exposed water trap seal, siphon jet or blowout action, and a bedpan flushing device;

(10) Medicine room adjacent to the nurses' station with a sink, refrigerator, locked storage, and facilities for preparation and administration of medication;

(11) Clean linen storage area in an enclosed storage space;

(12) Nourishment station containing refrigerated storage, self-dispensing ice machine, and a sink for serving between-meal nourishments;

(13) Equipment storage room on each patient or resident wing or floor for storage of patient or resident care equipment such as intravenous stands, inhalators, air mattresses, walkers, wheelchairs, and similar bulky equipment;

(14) Patient or resident bathing facilities containing one shower, bathtub, or whirlpool for each 15 beds not individually served. Whirlpool units with lifts may serve 30 beds;

(15) Janitor's closet for storage of housekeeping supplies and equipment which contains a floor receptor or service sink. The janitor's closet space and equipment may be incorporated into the soiled utility room;

(16) Isolation facilities for the use of those prone to infections as well as those suffering from infections. One isolation room must be provided for each 30 acute-care beds. The entry into the isolation room must be through an anteroom which is equipped with handwashing, gowning space and supplies, and space to handle clean and soiled supplies for the room or rooms served. Toilet, bathing, and handwashing facilities must be available for the isolation room patient without entry into the anteroom or general corridor. A nursing unit is not required to maintain an isolation facility if such facilities are provided elsewhere in the institution;

(17) Playroom facilities for pediatric patients; and

(18) Multipurpose rooms for staff, patients or residents, and patients' or residents' families for conferences, reports, education, training sessions, and consultation.

If outpatient therapy services are offered, the therapy unit must provide access without traversing inpatient areas, locked records storage, handsinks located convenient to treatment areas,
private room with handsink for speech language pathology, cubicle curtains for privacy at treatment areas, and the therapy unit must be sized and equipped to accommodate the therapy modalities offered.

Source: SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 24 SDR 90, effective January 4, 1998.
General Authority: SDCL 34-1-17, 34-12-13.
Law Implemented: SDCL 34-12-13.

44:04:13:03.01. Social services office. In hospitals and nursing facilities, a social services office which is in accordance with § 44:04:02:18.02 must be provided.

General Authority: SDCL 34-1-17, 34-12-13.
Law Implemented: SDCL 34-12-13.

44:04:13:03.02. Secured units. Repealed.


44:04:13:04. Dietary department. Construction, equipment, and installation of the dietary department must comply with or exceed the minimum standards in §§ 44:02:07:01, 44:02:07:02, and 44:02:07:04 to 44:02:07:95, inclusive, the Food Service Code. The installation must comply with § 44:04:13:05 unless a commercially prepared dietary service, meals, or disposables are used. If a commercial service is used, dietary areas and equipment must meet the requirements for sanitary storage, processing, and handling.

Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 24 SDR 90, effective January 4, 1998.
General Authority: SDCL 34-1-17, 34-12-13.
Law Implemented: SDCL 34-12-13.

Note: Article 44:02, Lodging and Food Service, Administrative Rules of South Dakota, contains the Food Service Code and may be obtained from Legislative Mail, 1320 East Sioux Avenue, Pierre, South Dakota 57501, telephone (605) 773-4935, for $3.30.

44:04:13:05. Food preparation services and equipment. The dietary area must be completely cleanable by conventional methods. The location and design of the dietary area must enable convenient handling of incoming supplies, preparation of meals, including tray service, and disposal of rubbish and garbage. Equipment and space provided must include the following:

(1) In dietary areas serving 20 beds or more, a dishwashing area including a commercial dishwasher supplied with 180 degree Fahrenheit (82 degrees centigrade) rinse water or a chemical sanitizing cycle, a soiled dish table with at least seven feet (2.13 meters) of work space, a garbage disposal, a garbage can, a clean dish table with room for at least three dish racks, and handwashing
facilities. If commercial undercounter dishwasher is used, the unit must be raised above the floor so that the rack height is level with the adjacent dish tables;

(2) A dry food storage area with at least 1.5 linear feet (0.46 meters) of shelving 20 inches (0.51 meters) wide for each patient or resident bed and a functional aisle;

(3) Refrigerated storage space providing at least 1.5 cubic feet (0.042 cubic meters) of refrigerated space and 0.5 cubic feet (0.014 cubic meters) of freezer space per patient or resident bed with sufficient refrigerated storage space located within the food production area for convenient food preparation;

(4) Aisles within the dietary area not less than three feet (0.91 meters) wide. Aisles adjoining equipment locations with doors or aisles utilized for cart traffic must be at least four feet (1.22 meters) wide;

(5) Pot and pan washing facilities, including a three-compartment sink with 18 inch drainboards on both sides and drying and storage facilities for pots and pans;

(6) A vegetable preparation area with a two-compartment sink with drainboards on both sides;

(7) Cart cleaning facilities;

(8) Cart storage areas;

(9) Waste disposal facilities;

(10) Waste can washing facilities;

(11) Employee dining facilities;

(12) Dietary manager's office or desk;

(13) Janitor's closet with storage for housekeeping supplies and equipment and floor receptor or service sink;

(14) Food production equipment sized and designed to prepare a complete meal for the total bed complement and for personnel, guests, day-care patients, or other catering services;

(15) Food holding and transportation equipment capable of protecting food from contamination and of maintaining cold food at 41 degrees Fahrenheit (five degrees centigrade) or below and hot food at 140 degrees Fahrenheit (60 degrees centigrade) or above during the total serving period;

(16) Ventilation equipment sized and designed to effectively remove steam, heat, cooking vapors, and grease from food production areas, dishwashing areas, and serving areas;
(17) Handwashing facilities that are convenient to each work area, consisting of hot and cold running water, towel dispenser with single-service towels or hand drying device and hand cleanser;

(18) In dietary areas serving 20 beds or more, a staff toilet facility; and

(19) In dietary areas serving 20 beds or more, a dispensing ice maker. A built-in dispensing ice maker in a refrigerator may be used in any facility with a capacity of less than 20 beds.


General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.

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.

Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.

44:04:13:07. Employee facilities. The locker room for employees must have lockers and a separate toilet room.
**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.

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 26 SDR 96, effective January 23, 2000.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

**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.

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 26 SDR 96, effective January 23, 2000.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

**44:04:13:10. Doors.** Any door to a patient or resident room toilet or bathroom must be equipped with hardware which will permit access in any emergency. A pocket or sliding door may not be installed except on a clothes closet in a patient or resident room. Any door opening onto a corridor, except an elevator door, must be hinged on the side. Alcoves and similar spaces which generally do not require doors are excluded from this requirement. No door may swing into the corridor except a closet door. Thresholds and expansion joint covers, if used, must be flush with the floor. Any cross-corridor door must be provided with vision panels.

Source: SL 1975, ch 16, § 1; repealed, 4 SDR 14, effective September 14, 1977.


Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; repealed, 26 SDR 96, effective January 23, 2000.


Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.


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).

Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 26 SDR 96, effective January 23, 2000.

General Authority: SDCL 34-1-17, 34-12-13.
**Law Implemented:** SDCL 34-12-13.

**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.

**Source:** SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 24 SDR 90, effective January 4, 1998; 26 SDR 96, effective January 23, 2000; 29 SDR 81, effective December 11, 2002.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.


**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.

**Source:** SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 29 SDR 81, effective December 11, 2002.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.
**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.

**Source:** SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

**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.

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 31 SDR 62, effective November 7, 2004.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

**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.

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.


**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; repealed, 26 SDR 96, effective January 23, 2000.

Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; repealed, 22 SDR 70, effective November 19, 1995.


Source: SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; repealed, 22 SDR 70, effective November 19, 1995.


Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; repealed, 23 SDR 195, effective May 26, 1997.

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.

Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.

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.

Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 27 SDR 59, effective December 17, 2000; 29 SDR 81, effective December 11, 2002.

General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.


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; and

(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.

**Source:** SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 26 SDR 96, effective January 23, 2000; 29 SDR 81, effective December 11, 2002; 30 SDR 84, effective December 4, 2003.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.


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.

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 24 SDR 90, effective January 4, 1998.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

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.

Source: SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 26 SDR 96, effective January 23, 2000; 27 SDR 59, effective December 17, 2000; 29 SDR 81, effective December 11, 2002.

General Authority: SDCL 34-1-17, 34-12-13.
Law Implemented: SDCL 34-12-13.


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.

Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

General Authority: SDCL 34-1-17, 34-12-13.
Law Implemented: SDCL 34-12-13.


Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; repealed, 26 SDR 96, effective January 23, 2000.

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; repealed, 26 SDR 96, effective January 23, 2000.

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.

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

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 hand-drying 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.

**Source:** SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 26 SDR 96, effective January 23, 2000; 27 SDR 59, effective December 17, 2000; 29 SDR 81, effective December 11, 2002; 30 SDR 84, effective December 4, 2003.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

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-p-phenylenediamine) 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.

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 28 SDR 83, effective December 16, 2001.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

**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.

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 26 SDR 96, effective January 23, 2000.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

**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.

Source: SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.
General Authority: SDCL 34-1-17, 34-12-13.
Law Implemented: SDCL 34-12-13.

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.

Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 24 SDR 90, effective January 4, 1998.
General Authority: SDCL 34-1-17, 34-12-13.
Law Implemented: SDCL 34-12-13.

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.

**Source:** SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.


**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; repealed, 26 SDR 96, effective January 23, 2000.

44:04:13:44. Nurses call system. A nurses call system must be provided for patient or resident use at each bed that will register a call from the patient or resident both visually and audibly at the nurses' call station and actuate a visual signal at the patient or resident room door, and in the clean workroom, soiled workroom, and nourishment station of the nursing unit. In multicorridor nursing units, additional visible signals must be installed at corridor intersections. Nurses call systems which provide two-way voice communication must be equipped with an indicating light at each calling station which lights and remains lighted as long as the voice circuit is operating. An emergency calling station convenient for patient or resident use must be provided at each patient or resident toilet, bath, or shower and at toilets serving patients or residents in laboratory, physical therapy, emergency, and X ray departments. An emergency nurses calling station must be provided for nurses' use in each operating, delivery, recovery, emergency, and intensive nursing care room and in nurseries, supervised wards for mental patients, and rooms for children.

**Source:** SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.

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

**Source:** SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

**General Authority:** SDCL 34-1-17, 34-12-13.

**Law Implemented:** SDCL 34-12-13.


**Source:** SL 1975, ch 16, § 1; repealed, 4 SDR 14, effective September 14, 1977.

44:04:13:47. Submittal of plans and specifications. Plans and specifications for new construction must be submitted to the department for evaluation of function and fire protection including concealed spaces. The department's approval must be obtained before beginning
construction. Modification during construction must be submitted to the department for review and must be approved prior to the modification.

Source: SL 1975, ch 16, § 1; 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995.

General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.

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.

Source: 4 SDR 14, effective September 14, 1977; 6 SDR 93, effective July 1, 1980; 14 SDR 81, effective December 10, 1987; 22 SDR 70, effective November 19, 1995; 26 SDR 96, effective January 23, 2000; 27 SDR 59, effective December 17, 2000; 29 SDR 81, effective December 11, 2002.

General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.


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.


General Authority: SDCL 34-1-17, 34-12-13.

Law Implemented: SDCL 34-12-13.

Cross-Reference: Fire safety code requirements, § 44:04:03:01.

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.

Source: 30 SDR 84, effective December 4, 2003.
General Authority: SDCL 34-12-13.
Law Implemented: SDCL 34-12-13.