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State of Minnesota

HOUSE OF REPRESENTATIVES

NINETY-THIRD SESSION

H. F. No. 1679

02/13/2023 Authored by Hemmingsen-Jaeger The bill was read for the first time and referred to the Committee on Health Finance and Policy

1.1 A bill for an act
1.2 relating to health; modifying provisions for hospital physical environment;
1.3 amending Minnesota Statutes 2022, sections 144.55, subdivision 3; 144.6535,
1.4 subdivisions 1, 2, 4; repealing Minnesota Rules, parts 4640.1500; 4640.1600;
1.5 4640.1700; 4640.1800; 4640.1900; 4640.2000; 4640.2100; 4640.2200; 4640.2300;
1.6 4640.2400; 4640.2500; 4640.2600; 4640.2700; 4640.2800; 4640.2900; 4640.3000;
1.7 4640.3100; 4640.3200; 4640.3300; 4640.3400; 4640.3500; 4640.3600; 4640.3700;
1.8 4640.3800; 4640.3900; 4640.4000; 4640.4100; 4640.4200; 4640.4300; 4640.6100;
1.9 4640.6200; 4640.6300; 4640.6400; 4645.0300; 4645.0400; 4645.0500; 4645.0600;
1.10 4645.0700; 4645.0800; 4645.0900; 4645.1000; 4645.1100; 4645.1200; 4645.1300;
1.11 4645.1400; 4645.1500; 4645.1600; 4645.1700; 4645.1800; 4645.1900; 4645.2000;
1.12 4645.2100; 4645.2200; 4645.2300; 4645.2400; 4645.2500; 4645.2600; 4645.2700;
1.13 4645.2800; 4645.2900; 4645.3000; 4645.3100; 4645.3200; 4645.3300; 4645.3400;
1.14 4645.3500; 4645.3600; 4645.3700; 4645.3800; 4645.3805; 4645.3900; 4645.4000;
1.15 4645.4100; 4645.4200; 4645.4300; 4645.4400; 4645.4500; 4645.4600; 4645.4700;
1.16 4645.4800; 4645.4900; 4645.5100; 4645.5200.

1.17 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.18 Section 1. Minnesota Statutes 2022, section 144.55, subdivision 3, is amended to read:

1.19 Subd. 3. Standards for licensure. (a) Notwithstanding the provisions of section 144.56,
1.20 for the purpose of hospital licensure, the commissioner of health shall use as minimum
1.21 standards the hospital certification regulations promulgated pursuant to title XVIII of the
1.22 Social Security Act, United States Code, title 42, section 1395, et seq. The commissioner
1.23 may use as minimum standards changes in the federal hospital certification regulations
1.24 promulgated after May 7, 1981, if the commissioner finds that such changes are reasonably
1.25 necessary to protect public health and safety. The commissioner shall also promulgate in
1.26 rules additional minimum standards for new construction.

1.27 (b) Hospitals must meet the applicable provisions of the 2022 edition of the Facility
1.28 Guidelines Institute Guidelines for Design and Construction of Hospitals. This minimum

2.1 design standard must be met for all new licenses, new construction, change of use, or change
2.2 of occupancy.

2.3 (c) If the commissioner decides to update the edition of the guidelines specified in
2.4 paragraph (b) for purposes of this subdivision, the commissioner must notify the chairs and
2.5 ranking minority members of the legislative committees and divisions with jurisdiction over
2.6 health care and public safety of the planned update by January 15 of the year in which the
2.7 new edition will become effective. Following notice from the commissioner, the new edition
2.8 shall become effective for assisted living facilities beginning August 1 of that year, unless
2.9 otherwise provided in law. The commissioner shall, by publication in the State Register,
2.10 specify a date by which facilities must comply with the updated edition. The date by which
2.11 facilities must comply shall not be sooner than six months after publication of the
2.12 commissioner's notice in the State Register.

2.13 (d) Hospitals shall be in compliance with all applicable state and local governing laws,
2.14 regulations, standards, ordinances, and codes for fire safety, building, and zoning
2.15 requirements.

2.16 ~~(b)~~ (e) Each hospital and outpatient surgical center shall establish policies and procedures
2.17 to prevent the transmission of human immunodeficiency virus and hepatitis B virus to
2.18 patients and within the health care setting. The policies and procedures shall be developed
2.19 in conformance with the most recent recommendations issued by the United States
2.20 Department of Health and Human Services, Public Health Service, Centers for Disease
2.21 Control. The commissioner of health shall evaluate a hospital's compliance with the policies
2.22 and procedures according to subdivision 4.

2.23 ~~(e)~~ (f) An outpatient surgical center must establish and maintain a comprehensive
2.24 tuberculosis infection control program according to the most current tuberculosis infection
2.25 control guidelines issued by the United States Centers for Disease Control and Prevention
2.26 (CDC), Division of Tuberculosis Elimination, as published in CDC's Morbidity and Mortality
2.27 Weekly Report (MMWR). This program must include a tuberculosis infection control plan
2.28 that covers all paid and unpaid employees, contractors, students, and volunteers. The
2.29 Department of Health shall provide technical assistance regarding implementation of the
2.30 guidelines.

2.31 ~~(d)~~ (g) Written compliance with this subdivision must be maintained by the outpatient
2.32 surgical center.

2.33 **EFFECTIVE DATE.** This section is effective August 1, 2023.

3.1 Sec. 2. Minnesota Statutes 2022, section 144.6535, subdivision 1, is amended to read:

3.2 Subdivision 1. **Request for variance or waiver.** A hospital may request that the
3.3 commissioner grant a variance or waiver from the provisions of ~~Minnesota Rules, chapter~~
3.4 ~~4640 or 4645~~ section 144.55, subdivision 3, paragraph (b). A request for a variance or waiver
3.5 must be submitted to the commissioner in writing. Each request must contain:

3.6 (1) the specific ~~rule or rules~~ requirement for which the variance or waiver is requested;

3.7 (2) the reasons for the request;

3.8 (3) the alternative measures that will be taken if a variance or waiver is granted;

3.9 (4) the length of time for which the variance or waiver is requested; and

3.10 (5) other relevant information deemed necessary by the commissioner to properly evaluate
3.11 the request for the variance or waiver.

3.12 **EFFECTIVE DATE.** This section is effective August 1, 2023.

3.13 Sec. 3. Minnesota Statutes 2022, section 144.6535, subdivision 2, is amended to read:

3.14 Subd. 2. **Criteria for evaluation.** The decision to grant or deny a variance or waiver
3.15 must be based on the commissioner's evaluation of the following criteria:

3.16 (1) whether the variance or waiver will adversely affect the health, treatment, comfort,
3.17 safety, or well-being of a patient;

3.18 (2) whether the alternative measures to be taken, if any, are equivalent to or superior to
3.19 those prescribed in ~~Minnesota Rules, chapter 4640 or 4645~~ section 144.55, subdivision 3,
3.20 paragraph (b); and

3.21 (3) whether compliance with the ~~rule or rules~~ requirements would impose an undue
3.22 burden upon the applicant.

3.23 **EFFECTIVE DATE.** This section is effective August 1, 2023.

3.24 Sec. 4. Minnesota Statutes 2022, section 144.6535, subdivision 4, is amended to read:

3.25 Subd. 4. **Effect of alternative measures or conditions.** (a) Alternative measures or
3.26 conditions attached to a variance or waiver have the same force and effect as the ~~rules~~
3.27 requirement under ~~Minnesota Rules, chapter 4640 or 4645~~ section 144.55, subdivision 3,
3.28 paragraph (b), and are subject to the issuance of correction orders and penalty assessments
3.29 in accordance with section 144.55.

4.1 (b) Fines for a violation of this section shall be in the same amount as that specified for
4.2 the particular ~~rule~~ requirement for which the variance or waiver was requested.

4.3 **EFFECTIVE DATE.** This section is effective August 1, 2023.

4.4 Sec. 5. **REPEALER.**

4.5 Minnesota Rules, parts 4640.1500; 4640.1600; 4640.1700; 4640.1800; 4640.1900;
4.6 4640.2000; 4640.2100; 4640.2200; 4640.2300; 4640.2400; 4640.2500; 4640.2600;
4.7 4640.2700; 4640.2800; 4640.2900; 4640.3000; 4640.3100; 4640.3200; 4640.3300;
4.8 4640.3400; 4640.3500; 4640.3600; 4640.3700; 4640.3800; 4640.3900; 4640.4000;
4.9 4640.4100; 4640.4200; 4640.4300; 4640.6100; 4640.6200; 4640.6300; 4640.6400;
4.10 4645.0300; 4645.0400; 4645.0500; 4645.0600; 4645.0700; 4645.0800; 4645.0900;
4.11 4645.1000; 4645.1100; 4645.1200; 4645.1300; 4645.1400; 4645.1500; 4645.1600;
4.12 4645.1700; 4645.1800; 4645.1900; 4645.2000; 4645.2100; 4645.2200; 4645.2300;
4.13 4645.2400; 4645.2500; 4645.2600; 4645.2700; 4645.2800; 4645.2900; 4645.3000;
4.14 4645.3100; 4645.3200; 4645.3300; 4645.3400; 4645.3500; 4645.3600; 4645.3700;
4.15 4645.3800; 4645.3805; 4645.3900; 4645.4000; 4645.4100; 4645.4200; 4645.4300;
4.16 4645.4400; 4645.4500; 4645.4600; 4645.4700; 4645.4800; 4645.4900; 4645.5100; and
4.17 4645.5200, are repealed effective August 1, 2023.

4640.1500 LABORATORY SERVICE.

Subpart 1. **Providing of service.** Laboratory service shall be provided in the hospital.

Subp. 2. **Personnel.** A physician shall have responsibility for the supervision of the laboratory. The laboratory personnel shall be qualified by education, training, and experience for the type of service performed.

It is recommended that this physician be a clinical pathologist.

Subp. 3. **Facilities and equipment.** Facilities and equipment for the performance of routine clinical diagnostic procedures and other laboratory techniques shall be adequate for the services provided.

Subp. 4. **Tissue examination.** Tissue removed at operation or autopsy shall be examined by a competent pathologist and the report of this examination shall be made a part of the patient's record.

4640.1600 X-RAY SERVICE.

Subpart 1. **Providing of service.** X-ray service shall be provided in the hospital.

Subp. 2. **Personnel.** A physician shall have responsibility for the supervision of the X-ray service. The X-ray personnel shall be qualified by education, training, and experience for the type of service performed.

It is recommended that this physician be a radiologist.

Subp. 3. **Facilities and equipment.** Diagnostic and therapeutic X-ray facilities shall be adequate for the services provided. Protection against radiation hazards shall be provided for the patients, operators, and other personnel.

4640.1700 PATIENT ROOMS.

Subpart 1. **Bedrooms.** All bedrooms used for patients shall be outside rooms, dry, well ventilated, naturally lighted, and otherwise suitable for occupancy. Each bedroom shall have direct access to a corridor. Rooms extending below ground level shall not be used as bedrooms for patients, except that any patient bedroom in use prior to the effective date of these rules may be continued provided it does not extend more than three feet below ground level.

Subp. 2. **Rooms used for patients.** No patient shall at any time be admitted for regular bed care to any room other than one regularly designed as a patient room or ward, except in case of emergency and then only as a temporary measure.

Subp. 3. **Placement of beds.** Patients' beds shall not be placed in corridors nor shall furniture or equipment be kept in corridors except in the process of moving from one room to another. There shall be a space of at least three feet between beds and sufficient space around the bed to facilitate nursing care and to accommodate the necessary equipment for care. Beds shall be located to avoid drafts or other discomforts to patients.

Subp. 4. **Window area.** The window area of each bedroom shall equal at least one-eighth of the total floor area. The minimum floor area shall be at least 100 square feet in single bedrooms and at least 80 square feet per bed in multibed rooms. All hospitals in operation as of the effective date of these rules shall comply with the requirements of this subpart to the extent possible, but nothing contained herein shall be so construed as to require major alterations by such hospitals nor shall a license be suspended or revoked for an inability to comply fully with this subpart.

4640.1800 EQUIPMENT FOR PATIENT ROOMS.

The following items shall be provided for each patient unless clinically contraindicated:

APPENDIX
Repealed Minnesota Rules: 23-00404

- A. a comfortable, hospital-type bed, a clean mattress, waterproof sheeting or pad, pillows, and necessary covering. Clean bedding, towels, washcloths, bath blankets, and other necessary supplies shall be kept on hand for use at all times;
- B. at least one chair;
- C. a locker or closet for storage of clothing. Where one closet is used for two or more persons, provisions shall be made for separation of patients' clothing;
- D. a bedside table with compartment or drawer to accommodate personal possessions;
- E. cubicle curtains or bed screens to afford privacy in all multibed rooms;
- F. a device for signaling attendants which shall be kept in working order at all times, except in psychiatric and pediatric units where an emergency call should be available in each patient's room for the use of the nurse;
- G. hand-washing facilities located in the room or convenient to the room for the use of patients and personnel. It is recommended that these be equipped with gooseneck spouts and wrist-action controls;
- H. a clinical thermometer; and
- I. individual bedpans, wash basins, emesis basins, and mouthwash cups shall be provided for each patient confined to bed. Such utensils shall be sterilized before use by any other patient.

4640.1900 NURSES' STATION.

There shall be one nurses' station provided for each nursing unit. Each station shall be conveniently located for patient service and observation of signals. It shall have a locked, well-illuminated medicine cabinet. Where narcotics are kept on the nursing station, a separate, locked, permanently secured cabinet for narcotics shall be provided. Adequate lighting, space for keeping patients' charts, and for personnel to record and chart shall be provided.

4640.2000 UTILITY ROOMS.

There shall be at least one conveniently located, well-illuminated, and ventilated utility room for each nursing unit. Such room shall provide adequate space and facilities for the emptying, cleaning, sterilizing, and storage of equipment. Bathtubs or lavatories or laundry trays shall not be used for these purposes. A segregation of clean and dirty activities shall be maintained.

It is recommended that a separate subutility room be provided for the exclusive use of maternity patients when other patients are housed on the same floor.

4640.2100 LINEN CLOSET.

A linen closet or linen supply cupboard shall be provided convenient to the nurses' station.

4640.2200 SUPPLIES AND EQUIPMENT.

Supplies and equipment for medical and nursing care shall be provided according to the type of patients accepted. Storage areas shall be provided for supplies and equipment. A separate enclosed space shall be provided and identified for the storage of sterile supplies. Sterile supplies and equipment for the administration of blood and intravenous or subcutaneous solutions shall be readily available. Acceptable arrangements shall be made for the provision of whole blood whenever indicated.

4640.2300 ISOLATION FACILITIES.

A room, or rooms, equipped for the isolation of cases or suspected cases of communicable disease shall be provided. Policies and procedures for the care of infectious patients including the handling of linens, utensils, dishes, and other supplies and equipment shall be established.

4640.2400 SURGICAL DEPARTMENT.

Subpart 1. **Areas to be provided.** All hospitals providing for the surgical care of patients shall have an operating room or rooms, scrub-up facilities, it is recommended that these be located just outside the operating room, cleanup facilities, and space for the storage of surgical supplies and instruments. The surgical suite shall be located to prevent routine traffic through it to any other part of the hospital. It is recommended that the surgical and obstetrical suites be entirely separate.

Subp. 2. **Operating room.** The operating room shall be of sufficient size to accommodate the personnel and equipment needed.

Subp. 3. **Illumination.** There shall be satisfactory illumination of the operative field as well as general illumination.

Subp. 4. **Sterilizing facilities.** Adequate work space, sterilizing space, and sterile storage space shall be provided. Sterilizers and autoclaves of the proper type and necessary capacity for the sterilization of utensils, instruments, dressings, water, and other solutions shall be provided and maintained in an operating condition. Special precautions shall be taken so that sterile supplies are readily identifiable as such and are completely separated from unsterile supplies. A central sterilizing and supply room is recommended.

Provision of sterile water in flasks is recommended.

4640.2500 ANESTHESIA.

Subpart 1. **Administration.** Anesthesia shall be administered by a person adequately trained and competent in anesthesia administration, or under the close supervision of a physician.

Subp. 2. **Equipment.** Suitable equipment for the administration of the type of anesthesia used shall be available. Where conductive flooring is installed in anesthetizing areas, all equipment shall have safety features as defined in Part II of Standard No. 56, issued in May 1954, entitled Recommended Safe Practice for Hospital Operating Rooms by the National Fire Protection Association, 60 Batterymarch Street, Boston, Massachusetts, which part of said standard is hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth in and written as part of this subpart.

Subp. 3. **Oxygen.** Oxygen and equipment for its use shall be available.

Subp. 4. **Storage.** Proper provision shall be made for the safe storage of anesthetic materials.

4640.2600 OBSTETRICAL DEPARTMENT.

Subpart 1. **Areas to be provided.** Hospitals providing for the obstetrical care of maternity patients shall have a delivery room or rooms, in the ratio of one for each 20 maternity beds, scrub-up facilities, cleanup facilities, and space for the storage of obstetrical supplies and instruments. The obstetrical suite shall be located to prevent routine traffic through it to any other part of the hospital.

It is recommended that these be located just outside the delivery room.

An exception is made for those hospitals, which on the effective date of these rules, provide a single room which is used for both surgery and delivery purposes. Scrub-up

facilities, cleanup facilities, and space for the storage of supplies and instruments shall be provided in such hospitals. Precautions shall be taken to avoid cross-infection.

Subp. 2. **Delivery room.** The delivery room shall be of sufficient size to accommodate the personnel and equipment needed.

Subp. 3. **Illumination.** There shall be satisfactory illumination of the delivery field as well as general illumination.

Subp. 4. **Labor beds.** One labor bed for each ten maternity beds or fraction thereof shall be provided in a labor room or rooms adjacent to or in the delivery suite unless the patient's own room is used for labor. It is recommended that the labor room be acoustically treated and provided with a toilet and lavatory.

Subp. 5. **Accommodations.** Maternity patients shall not be placed in rooms with other than maternity patients.

Subp. 6. **Minimum equipment requirements for delivery room.** The following shall be provided in the delivery room:

- A. equipment for anesthesia and for the administration of oxygen to the mother;
- B. a source of oxygen with a mechanism for controlling the concentration of oxygen and with a suitable device for administering oxygen to the infant;
- C. a safe and suitable type of suction device for cleaning the infant's upper respiratory tract of mucus and other fluid;
- D. a properly heated bassinet for reception of the newborn infant. This shall include no hazardous electrical equipment;
- E. sterile equipment suitable for clamping, cutting, tying, and dressing the umbilical cord;
- F. provision for prophylactic treatment of the infant's eyes;
- G. a device as well as an established procedure for easy and positive identification of the infant before removal from the delivery room. This shall be of a type which cannot be inadvertently removed during routine care of the infant; and
- H. sterile supplies and equipment for the administration of blood and intravenous or subcutaneous solutions shall be readily available. Acceptable arrangements shall be made for the provision of the whole blood whenever indicated.

Subp. 7. **Obstetrical isolation facilities.** Maternity patients with infection, fever, or other conditions or symptoms which may constitute a hazard to other maternity patients shall be isolated immediately in a separate room which is properly equipped for isolation in an area removed from the obstetrical department.

4640.2700 NURSERY DEPARTMENT.

Subpart 1. **Newborn nursery.** Each hospital with a maternity service shall provide at least one newborn nursery for the exclusive use of well infants delivered within the institution. The number of bassinets provided shall be at least equal to the number of maternity beds. Each nursery shall be provided with a lavatory with gooseneck spout and other than hand-operated faucets.

It is recommended that each newborn nursery be limited to 12 bassinets. An exit door from the nursery into the corridor is recommended for emergency use.

Subp. 2. **Nursery space of new hospitals.** In hospitals constructed after the effective date of these rules, the total nursery space, exclusive of the workroom, shall provide a floor area of at least 24 square feet for each bassinet, with a distance of at least two feet between each bassinet and an aisle space of at least three feet.

Subp. 3. **Nursery space of existing hospitals.** Hospitals operating as of the effective date of these rules shall comply with subpart 2, to the extent possible, but no hospital shall have a nursery area which provides less than 18 inches between each bassinet and an aisle space of at least three feet, exclusive of the workroom or work area.

Subp. 4. **Bassinet.** Each bassinet shall be mounted on a single stand and be removable to facilitate cleaning.

Subp. 5. **Observation window.** An observation window shall be installed between the corridor and nursery for the viewing of infants.

Subp. 6. **Incubators.** Each nursery department shall have one or more incubators whereby temperature, humidity, and oxygen can be controlled and measured.

Subp. 7. **Premature nursery.** A separate premature nursery and workroom are recommended for hospitals with 25 or more maternity beds on the basis of 30 square feet per incubator and a maximum of six incubators per nursery.

It is recommended that the oxygen concentration be checked by measurement with an oxygen analyzer at least every eight hours or that an incubator-attached, minus 40 percent oxygen concentration limiting device be used.

Subp. 8. **Examination and workroom.** An adjoining examination and workroom shall be provided for each nursery or between each two nurseries. The workroom shall be of adequate size to provide facilities necessary to prepare personnel for work in the nursery, for the examination and treatment of infants by physicians, for charting, for storage of nursery linen, for disposal of soiled linen, for storage and dispensing of feedings, and for initial rinsing of bottles and nipples. Each workroom shall be provided with a scrub-up sink having foot, knee, or elbow action controls; counter with counter sink having a gooseneck spout and other than hand-operated controls.

Hospitals operating as of the effective date of these rules shall comply with regulation subpart 2, to the extent possible, but if a separate examination and workroom is not provided, there shall be a segregated examination and work area in the nursery. The work area shall be of adequate size and provide the facilities and equipment necessary to prepare personnel for work in the nursery, for the examination and treatment of infants by physicians, for storage of nursery linen, and for the dispensing of feedings.

Subp. 9. **Formula preparation.** Space and equipment for cleanup, preparation, and refrigeration to be used exclusively for infant formulas shall be provided apart from care areas and apart from other food service areas. A registered nurse or a dietitian shall be responsible for the formula preparation. A separate formula room is recommended; terminal sterilization is recommended.

Subp. 10. **Suspect nursery or room.** There shall be a room available for the care of newborn infants suspected of having a communicable disease and for newborn infants admitted from the outside. Where a suspect nursery is available, it shall provide 40 square feet per bassinet with a maximum of six bassinets and have a separate workroom. Isolation technique shall be used in the suspect nursery.

Subp. 11. **Isolation.** Infants found to have an infectious condition shall be transferred promptly to an isolation area elsewhere in the hospital.

4640.2800 PREPARATION AND SERVING OF FOOD.

Subpart 1. **Supervision.** The dietary department shall be under the supervision of a trained dietitian or other person experienced in the handling, preparation, and serving of foods; in the preparation of special diets; and in the supervision and management of food service personnel. This person shall be responsible for compliance with safe practices in food service and sanitation.

Subp. 2. **Kitchen.** There shall be sufficient space and equipment for the proper preparation and serving of food for both patients and personnel. The kitchen shall be used for no other purpose than activities connected with the dietary service and the washing and storage of dishes and utensils. A dining room or rooms shall be provided for personnel.

It is recommended that a separate dishwashing area or room be provided.

Subp. 3. **Food.** Food for patients and employees shall be nutritious, free from contamination, properly prepared, palatable, and easily digestible. A file of the menus served shall be maintained for at least 30 days.

Subp. 4. **The serving and storage of food.** All foods shall be stored and served so as to be protected from dust, flies, rodents, vermin, unnecessary handling, overhead leakage, and other means of contamination. All readily perishable food shall be stored in clean refrigerators at temperatures of 50 degrees Fahrenheit or lower. Each refrigerator shall be equipped with a thermometer.

Subp. 5. **Milk and ice.** All fluid milk shall be procured from suppliers licensed by the commissioner of agriculture or pasteurized in accordance with the requirements prescribed by the commissioner of agriculture. The milk shall be dispensed directly from the container in which it was packaged at the pasteurization plant. Ice used in contact with food or drink shall be obtained from a source acceptable to the commissioner of health, and handled and dispensed in a sanitary manner.

Subp. 6. **Hand-washing facilities.** Hand-washing facilities with hot and cold running water, soap, and individual towels shall be accessible for the use of all food handlers and so located in the kitchen to permit direct observation by the supervisor. No employee shall resume work after using the toilet room without first washing his or her hands.

4640.2900 DISHWASHING FACILITIES AND METHODS.

Subpart 1. **Methods.** Either of the following methods may be employed in dishwashing.

Subp. 2. **Manual.** A three-compartment sink or equivalent of a size adequate to permit the introduction of long-handled wire baskets of dishes shall be provided. There shall be a sufficient number of baskets to hold the dishes used during the peak load for a period sufficient to permit complete air drying. Water-heating equipment capable of maintaining the temperature of the water in the disinfection compartment at 170 degrees Fahrenheit shall be provided. Drain boards shall be part of the three-compartment sink and adequate space shall be available for drainage. The dishes shall be washed in the first compartment of the sink with warm water containing a suitable detergent; rinsed in clear water in the second compartment; and disinfected by complete immersion in the third compartment for at least two minutes in water at a temperature not lower than 170 degrees Fahrenheit. Temperature readings shall be determined by a thermometer. Dishes and utensils shall be air-dried.

Subp. 3. **Mechanical.** Water pressure in the lines supplying the wash and rinse section of the dishwashing machine shall not be less than 15 pounds per square inch nor more than 30 pounds per square inch. The rinse water shall be at a temperature not lower than 180 degrees Fahrenheit at the machine. The machines shall be equipped with thermometers which will indicate accurately the temperature of the wash water and rinse water. Dishes and utensils shall be air-dried. New dishwashing machines shall conform to sections 1, 2, 3, 4, and 6 on pages 7-28 inclusive, of Standard No. 3 issued in May 1953, entitled Spray-Type Dishwashing Machines by the National Sanitation Foundation, Ann Arbor, Michigan, which sections of such standard are hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth in and written as part of this subpart.

4640.3000 VENTILATION.

All rooms in which food is stored, prepared, or served or in which utensils are washed shall be well ventilated. The cooking area shall be ventilated to control temperatures, smoke, and odors.

4640.3100 GARBAGE DISPOSAL.

Garbage shall be disposed of in a manner acceptable to the commissioner of health. When stored, it shall be retained in watertight metal cans equipped with tightly fitting metal covers. All containers for the collection of garbage and refuse shall be kept in a sanitary condition.

4640.3200 TOILET AND LAVATORY FACILITIES.

Conveniently located toilet and lavatory facilities shall be provided for employees engaged in food handling. Toilet rooms shall not open directly into any room in which food is prepared or utensils are handled or stored.

4640.3300 WATER FACILITIES.

Subpart 1. **Water supply.** The water supply shall be of safe sanitary quality, suitable for use, and shall be obtained from a water supply system, the location, construction, and operation of which are acceptable to the commissioner of health. Hot water of a temperature required for its specific use shall be available as needed. For the protection of patients and personnel, thermostatically controlled valves shall be installed where indicated.

Subp. 2. **Sewage disposal.** Sewage shall be discharged into a municipal sewerage system where such a system is available; otherwise, the sewage shall be collected, treated, and disposed of in a sewage disposal system which is acceptable to the commissioner of health.

Subp. 3. **Plumbing.** The plumbing and drainage, or other arrangements for the disposal of excreta and wastes, shall be in accordance with the rules of the commissioner of health and with the provisions of the Minnesota Plumbing Code, chapter 4714.

Subp. 4. **Toilets.** Toilets shall be conveniently located and provided in number ample for use according to the number of patients and personnel of both sexes. The minimum requirement is one toilet for each eight patients or fraction thereof. It is recommended that separate toilet and bathing facilities be provided for maternity patients.

Subp. 5. **Hand-washing facilities.** Hand-washing facilities of the proper type in each instance shall be readily available for physicians, nurses, and other personnel. Lavatories shall be provided in the ratio of at least one lavatory for each eight patients or fraction thereof. Lavatories shall be readily accessible to all toilets. Individual towels and soap shall be available at all times. The use of the common towel is prohibited. It is recommended that each patient's room be equipped with a lavatory.

Subp. 6. **Bathing facilities.** A bathtub or shower shall be provided in the ratio of at least one tub or shower for each 30 patients or fraction thereof. It is recommended that separate toilet and bathing facilities be provided for maternity patients.

4640.3400 SCREENS.

Outside openings including doors and windows shall be properly screened or otherwise protected to prevent the entrance of flies, mosquitoes, and other insects.

4640.3500 PHYSICAL PLANT.

Subpart 1. **Safety.** The hospital structure and its equipment shall be kept in good repair and operated at all times with regard for the health, treatment, comfort, safety, and well-being of the patients and personnel. All dangerous areas and equipment shall be provided with

proper guards and appropriate devices to prevent accidents. Elevators, dumbwaiters, and machinery shall be so constructed and maintained as to comply with the rules of the Division of Accident Prevention, Minnesota Department of Labor and Industry. All electrical wiring, appliances, fixtures, and equipment shall be installed to comply with the requirements of the Board of Electricity.

Subp. 2. **Fire protection.** Fire protection for the hospital shall be provided in accordance with the requirements of the state fire marshal. Approval by the state fire marshal of the fire protection of a hospital shall be a prerequisite for licensure.

Subp. 3. **Heating.** The heating system shall be capable of maintaining temperatures adequate for the comfort and protection of all patients at all times.

Subp. 4. **Incinerator.** An incinerator shall be provided for the safe disposal of infected dressings, surgical and obstetrical wastes, and other similar materials.

Subp. 5. **Laundry.** The hospital shall make provision for the proper laundering of linen and washable goods. Where linen is sent to an outside laundry, the hospital shall take reasonable precautions to see that contaminated linen is properly handled.

Subp. 6. **General illumination.** All areas shall be adequately lighted.

Subp. 7. **Lighting in hazardous areas.** All lighting and electrical fixtures including emergency lighting in operating rooms, delivery rooms, and spaces where explosive gases are used or stored shall comply with Part II of Standard No. 56, issued in May 1954, entitled Recommended Safe Practice for Hospital Operating Rooms, by the National Fire Protection Association, 60 Batterymarch Street, Boston, Massachusetts, which part of said standard is hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth in and written as part of this subpart.

Subp. 8. **Emergency lighting.** Safe emergency lighting equipment shall be provided and distributed so as to be readily available to personnel on duty in the event of a power failure. There shall be at least a battery operated lamp with vaporproof switch, in readiness at all times for use in the delivery and operating rooms.

It is recommended that an independent source of power be available for emergency lighting of surgical and obstetrical suites, exits, stairways, and corridors.

Subp. 9. **Stairways and ramps.** All stairways and ramps shall be provided with handrails on both sides and with nonskid treads.

Subp. 10. **General storage.** Space shall be provided for the storage of supplies and equipment. Corridors shall not be used as storage areas.

Subp. 11. **Telephones.** Adequate telephone service shall be provided in order to assure efficient service and operation of the institution and to summon help promptly in case of emergency.

Subp. 12. **Ventilation.** Kitchens, laundries, toilet rooms, and utility rooms shall be ventilated by windows or mechanical means to control temperatures and offensive odors. If ventilation is used in operating rooms, delivery rooms, or other anesthetizing areas, the system shall conform to the requirements of part 4645.3200.

Subp. 13. **Walls, floors, and ceilings.** Walls, floors, and ceilings shall be kept clean and in good repair at all times. They shall be of a type to permit good maintenance including frequent washings, cleaning, or painting.

4640.3600 STAFF.

Subpart 1. **Medical director or chief of staff.** There shall be a medical director or chief of staff who shall be a licensed physician with training and experience in psychiatry and who shall assume responsibility for the medical care rendered.

Subp. 2. **Medical and nursing staff.** An adequate medical staff shall be provided to assure optimum care of patients at all times. The director of the nursing service shall be a well-qualified, registered nurse with training and experience in psychiatric nursing. There shall be a sufficient number of nurses, psychiatric aides, and attendants under the director's supervision to assure optimum care of patients at all times.

Subp. 3. **Other staff.** The staff shall include a sufficient number of qualified physical and occupational therapists to provide rehabilitation services for the number of patients accommodated. The hospital shall make provisions in its staff organization for consultations in the specialized fields of medicine.

4640.3700 DENTAL SERVICE.

Provisions shall be made for dental service either within or outside the institution.

4640.3800 PROTECTION OF PATIENTS AND PERSONNEL.

Subpart 1. **Security.** Every reasonable precaution shall be taken for the security of patients and personnel. Drugs, narcotics, sharp instruments, and other potentially hazardous articles shall be inaccessible to patients.

Subp. 2. **Segregation of patients.** Patients with tuberculosis or other communicable disease shall be segregated.

Subp. 3. **Seclusion and restraints.** Patients shall not be placed in seclusion or mechanical restraints without the written order of the physician in charge unless, in the judgment of the supervisor in charge of the service, the safety and protection of the patient, hospital employees, or other patients require such immediate seclusion or restraint. Such seclusion or restraint shall not be continued beyond eight hours except by written or telephone order of the attending physician. Emergency orders given by telephone shall be reduced to writing immediately upon receipt and shall be signed by the staff member within 24 hours after the order is given. Such patient shall be under reasonable observation and care of a nurse or attendant at all times.

4640.3900 FLOOR AREA IN PATIENTS' ROOMS.

The following minimum areas shall be provided:

A. psychiatric units and wards of general hospitals, and those units and wards of public and private mental hospitals where diagnosis and intensive treatment are provided, such as receiving, medical and surgical, tuberculosis, intensive treatment and rehabilitation, and units and wards for the acutely disturbed patient: parts 4640.1700 to 4640.2200 shall apply; and

B. continued treatment areas for long-term patients: in hospitals constructed after the effective date of these rules, the minimum floor area shall be at least 80 square feet in single rooms and 60 square feet in multibed rooms; in dormitory areas, this may include the space devoted to aisles. All main traffic aisles shall be five feet in width except in large dormitories where the aisle serves ten or more patients, it shall be six feet in width.

All hospitals in operation as of the effective date of these rules shall comply with the requirements of this part to the extent possible.

Beds shall be placed at least three feet from adjacent beds except where partitions or other barriers separate beds or where two beds are placed foot-to-foot. Beds shall be so located as to avoid drafts and other discomforts to patients.

Whenever the patient's condition permits, each individual patient's area shall be equipped with a chair and a bedside cabinet. Adequate provision shall be made for the storage of patients' clothes and other personal possessions.

4640.4000 DINING ROOM.

A minimum of 12 square feet of dining room space shall be provided for each patient. Arrangements may be made for multiple seatings.

4640.4100 RECREATION AND DAYROOMS.

Space shall be provided for recreation and dayroom areas.

4640.4200 SPECIALIZED TREATMENT FACILITIES.

Space and equipment for physical, occupational, and recreational therapy shall be provided. Storage space for equipment shall be provided.

4640.4300 INSTITUTIONS FOR THE MENTALLY DEFICIENT AND EPILEPTIC.

Hospital sections in institutions for persons with developmental disabilities and epilepsy shall comply with the applicable portions of the rules for general hospitals contained herein.

Parts 4640.3900, except for item A, 4640.4000, and 4640.4100 shall apply to the sections of these institutions other than the hospital sections. Hospital rules shall not apply to facilities for foster care licensed by the commissioner of human services nor to institutions that do not have hospital units.

4640.6100 STAFF.

Subpart 1. **Licensed physician.** A licensed physician with interest, training, and experience in the medical and physical rehabilitation of the chronically ill shall be responsible for the adequacy of the medical care rendered.

Subp. 2. **Medical and nursing staff.** An adequate medical staff shall be provided to assure optimum care of patients at all times. The director of the nursing service shall be a well-qualified, registered nurse with experience in rehabilitation nursing. There shall be a sufficient number of nurses and attendants under the director's supervision to assure optimum care of patients at all times.

Subp. 3. **Other staff.** The services of at least one qualified physical therapist and one qualified occupational therapist shall be available, preferably on a full-time basis. Additional therapists shall be provided to assure optimum care for the number of patients accommodated. There shall be an adequate number of medical social workers. Educational and vocational educational personnel shall be provided where indicated. The hospital shall make provisions in its staff organization for consultations in the specialized fields of medicine.

4640.6200 DENTAL SERVICE.

Provision shall be made for dental service either within or outside the institution.

4640.6300 DIAGNOSTIC AND TREATMENT FACILITIES AND SERVICES.

Laboratory and X-ray facilities and services as well as basal metabolism and electrocardiograph shall be provided unless available in an adjacent general hospital.

4640.6400 ROOMS IN THE HOSPITAL.

Subpart 1. **Dining room.** Every possible effort shall be made to encourage all patients to eat in a common dining room. A minimum of 15 square feet shall be provided for each ambulatory patient. Arrangements may be made for multiple seatings. Areas in dayrooms and solarium may be utilized for this purpose.

Subp. 2. **Dayroom or solarium.** Every possible effort shall be made to encourage all patients to utilize dayrooms, solarium, recreational and occupational therapy, and similar areas. A minimum of 25 square feet per patient shall be provided.

Subp. 3. **Specialized treatment facilities.** Space and equipment for physical, occupational, and recreational therapy shall be provided. Storage space for equipment shall be provided.

4645.0300 DESIGN AND CONSTRUCTION.

All design and construction shall conform to all applicable portions of parts 4645.0200 to 4645.5200 of these hospital rules.

4645.0400 COMPLIANCE.

All construction including exit lights and fire towers; heating, piping, ventilation, and air-conditioning; plumbing and drainage; electrical installations; elevators and dumbwaiters; refrigeration; kitchen equipment; laundry equipment; and gas piping shall be in strict compliance with all applicable state and local codes, ordinances, and rules not in conflict with the provisions contained in parts 4645.0200 to 4645.5200.

4645.0500 HOSPITALS OF LESS THAN 50 BEDS.

In hospitals of less than 50 beds, the size of the various departments will be generally smaller and will depend upon the requirements of the particular hospital. Some of the functions allotted separate spaces or rooms may be combined in such hospitals provided that the resulting plan will not compromise the best standards of medical and nursing practice. In other respects the rules as set forth herein, including the area requirements, shall apply.

4645.0600 ADMINISTRATION DEPARTMENT.

The administration department shall consist of a business office with information counter, administrator's office, medical record room, staff lounge, lobby, and public toilets for each sex. If over 100 beds, the following additional areas shall be provided: director of nurses' office, admitting office, library, conference, and board room.

It is recommended that the following be provided: a PBX board and night information for all hospitals; director of nurses' office in hospitals under 100 beds; medical social service room, and retiring room in hospitals over 100 beds.

4645.0700 ADJUNCT DIAGNOSTIC AND TREATMENT FACILITIES.

Subpart 1. **Laboratory.** Adequate facilities and equipment for the performance of routine clinical diagnostic procedures and other laboratory techniques in keeping with the services rendered by the hospital shall be provided. Approximately 4-1/2 square feet of floor space per patient bed shall be provided.

Subp. 2. **Basal metabolism and electrocardiography.** One room shall be provided for basal metabolism and electrocardiography in hospitals with 100 beds or more.

Subp. 3. **Recommended facilities.** It is recommended that these facilities, except for morgue and autopsy, be located convenient to both inpatients and outpatients.

It is recommended that space be provided for electrotherapy, hydrotherapy, massage, and exercise in hospitals with 100 beds or more.

Subp. 4. **Radiology.** Radiographic room or rooms with adjoining darkroom, toilet, dressing cubicles, and office shall be provided. Protection against radiation hazards shall be provided for the patients, operators, and other personnel. To assure adequate protection against radiation hazards, X-ray apparatus and protection shall be installed in accordance with the applicable standards prescribed in Handbook 41, issued March 30, 1949, entitled Medical X-ray Protection up to Two Million Volts and Handbook 50, issued May 9, 1952, entitled X-Ray Protection Design by the National Bureau of Standards, U.S. Department of Commerce, Superintendent of Documents, Washington 25, D.C., which standards are hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth in and written as part of this subpart.

Subp. 5. **Pharmacy.** A drug room shall be provided.

Subp. 6. **Morgue and autopsy room.** A morgue and autopsy room shall be provided in hospitals with 100 beds or more. Where morgue and autopsy rooms are provided, they shall be properly equipped and ventilated and of sufficient size to allow for the performance of satisfactory pathological examinations. Definite arrangements for space and facilities for the performance of autopsies outside the hospital shall be made if the hospital does not have an autopsy room.

4645.0800 NURSING DEPARTMENT.

Subpart 1. **Patients' rooms.** All patients' rooms shall be outside rooms and have direct access to a hall. The window area shall not be less than one-eighth of the total floor area. No bedrooms shall be located below grade. Minimum room areas shall be 80 square feet per bed in rooms having two or more beds and 100 square feet in single rooms. No bedroom shall have more than four beds. Each bedroom or its adjoining toilet or bathroom shall have a lavatory equipped with gooseneck spout and wrist-action controls. A locker shall be provided for each patient.

Subp. 2. **Areas to be provided.** The following areas shall be provided in each nursing unit: nurses' station, utility room divided into dirty and clean areas, bedpan facilities, toilet facilities for each sex in a ratio of one toilet for each eight patients or fraction thereof, bathtubs or showers in a ratio of one tub or shower for each 30 patients or fraction thereof, linen and supply storage, and janitors' closet. Each nursing floor shall have a floor pantry and nurses' toilet room. Separate subutility, toilet, and bathing facilities shall be provided for the maternity section.

It is recommended that a stretcher alcove, treatment room, and solarium be provided.

A psychiatric or quiet room is recommended in general hospitals not providing a psychiatric unit.

Adjustments will be made where patients' rooms are provided with individual toilets.

Subp. 3. **Nurses' station.** Each nurses' station shall be conveniently located for patient service and observation of signals. It shall have a locked, well-illuminated medicine cabinet. Where narcotics are kept on the nursing station, a separate, locked, permanently secured cabinet for narcotics shall be provided. Adequate lighting, hand-washing facilities, space for keeping patients' charts, and for personnel to record and chart shall be provided. Refrigeration storage shall be provided for medications and biologics unless provided elsewhere.

Subp. 4. **Isolation suite.** One isolation suite shall be provided in each hospital unless a contagious disease nursing unit is available in the hospital. The isolation suite shall consist of one or more patients' rooms, each having an adjacent toilet equipped with bedpan lugs and spray attachment. Each suite shall have a subutility room equipped with utensil sterilizer, sink, and storage cabinets.

4645.0900 SURGICAL DEPARTMENT.

Subpart 1. **Location.** The surgical department shall be so located to prevent routine traffic through it to any other part of the hospital and completely separated from the obstetrical department.

Subp. 2. **The operating suite.** The operating suite shall consist of major operating room or rooms, each having an area of not less than 270 square feet with a minimum width of 15 feet; separate scrub-up area adjacent to operating room; cleanup room; storage areas for instruments, sterile supplies, and anesthesia equipment; and a janitors' closet. In hospitals consisting of 50 or more beds, a surgical supervisor's station, doctors' locker room and toilet, and nurses' locker room and toilet shall be provided. In hospitals of less than 50 beds, doctors' and nurses' locker and toilet rooms may be provided in a convenient location outside the operating and delivery suites to serve both units.

A stretcher alcove and a recovery (postanesthesia) room are recommended.

Subp. 3. **Central sterilizing and supply room.** A central sterilizing and supply room shall be provided and divided into work space, sterilizing space, and separate storage areas for sterile and unsterile supplies. Sterilizers and autoclaves for adequate sterilization of supplies and utensils shall be provided.

Provision of sterile water in flasks is recommended.

4645.1000 EMERGENCY ROOM.

An emergency room shall be provided separate from the operating and delivery suites.

4645.1100 OBSTETRICAL DEPARTMENT.

Subpart 1. **Location.** The obstetrical department shall be so located to prevent routine traffic through it to any other part of the hospital and completely separated from the surgical department. A combination classroom-parent teaching room is recommended in the obstetrical departments, outside the delivery suite.

Subp. 2. **The delivery suite.** The delivery suite shall consist of delivery room or rooms, each having an area of not less than 270 square feet with a minimum width of 15 feet; separate scrub-up area adjacent to delivery room; cleanup room; storage areas for instruments and sterile supplies; and a janitors' closet. In hospitals consisting of 50 or more beds, an obstetrical supervisor's station, doctors' locker room and toilet, and nurses' locker room and toilet shall be provided. In hospitals of less than 50 beds, doctors' and nurses' locker and toilet rooms may be provided in a convenient location outside the delivery and operating suites to serve both units. A stretcher alcove is recommended.

Subp. 3. **Delivery room.** One delivery room shall be provided for each 20 maternity beds.

Subp. 4. **Labor room.** A labor room with a lavatory and an adjacent toilet shall be provided in a convenient location with respect to the delivery room. One labor bed shall be provided for each 10 maternity beds. The labor room shall be acoustically treated or so located to minimize the possibility of sounds reaching other patients.

4645.1200 NURSERY DEPARTMENT.

Subpart 1. **Size.** Each hospital providing a maternity service shall have a nursery department of sufficient size to accommodate the anticipated load.

Subp. 2. **Newborn nursery.** A minimum floor area of 24 square feet per bassinet shall be provided in each newborn nursery with not more than 12 bassinets in each nursery. A connecting examination and work room shall be provided.

A separate premature nursery and work room are recommended for hospitals with 25 or more maternity beds on the basis of 30 square feet per incubator and a maximum of six incubators per nursery.

Subp. 3. **Suspect nursery.** A suspect nursery with a separate connecting workroom shall be provided in hospitals of 50 beds or more. At least 40 square feet of floor area shall be provided for each bassinet with no more than six bassinets in each suspect nursery.

Subp. 4. **Formula room.** A formula room shall be provided in the nursery area or in the dietary department where adequate supervision can be provided. This room shall be used exclusively for the preparation of infant formulas. The formula room shall contain a lavatory with gooseneck spout and wrist-action controls, a two-compartment sink for washing and rinsing bottles and utensils, and adequate storage and counter space. The work space shall be divided into clean and dirty sections. Equipment shall be provided for sterilization. Refrigerated storage space sufficient for one day's supply of prepared formulas shall be provided in this room or in the nursery workroom. Terminal sterilization is recommended.

4645.1300 SERVICE DEPARTMENT.

Subpart 1. **Dietary facilities.** Dietary facilities shall consist of main kitchen with provision for the protected storage of clean dishes, utensils, and foodstuffs; day storage room; adequate refrigeration; dishwashing facilities; and the necessary space and provisions for the handling and disposal of garbage. A dietitian's office shall be provided in hospitals of 50 or more beds. Hand-washing facilities with hot and cold water, soap, and individual towels shall be accessible for the use of all food-service personnel and so located to permit direct observation by the supervisor. Dining space for personnel, allowing 12 square feet per person, shall be provided. This space may be designed for multiple seatings.

Subp. 2. **Laundry facilities.** Each hospital shall have a laundry of sufficient capacity to process a full seven days' laundry during the work week unless commercial or other laundry facilities are available. It shall include sorting area; processing area; and clean linen and sewing room separate from the laundry. The sewing room may be combined with the clean linen room in hospitals of less than 100 beds. Where no laundry is provided in the hospital, a soiled linen room and a clean linen and sewing room shall be provided.

Subp. 3. **Housekeeper's office.** A housekeeper's office shall be provided. This may be combined with the clean linen room in hospitals of less than 100 beds.

Subp. 4. **Mechanical facilities.** A boiler and pump room with engineers' space and maintenance shop shall be provided. In hospitals of more than 100 beds, separate areas for carpentry, painting, and plumbing shall be provided.

Shower and locker facilities are recommended.

Subp. 5. **Employees facilities.** Locker rooms with lockers, rest rooms, toilets, and showers for nurses and female help; and a locker room with lockers, toilets, and showers for male help shall be provided.

Subp. 6. **Storage.** Inactive record storage shall be provided. General storage of not less than 20 square feet per bed shall be provided. General storage shall be concentrated in one area in so far as possible.

4645.1400 CONTAGIOUS DISEASE NURSING UNIT.

When ten or more beds are provided for contagious disease, they shall be contained in a separate nursing unit. Each patient room shall have a view window from the corridor, a separate toilet, a lavatory in the room, and shall contain no more than two beds. Each nursing unit shall contain a nurses' station, utility room, nurses' work room, treatment room, scrub sinks conveniently located in the corridor, serving pantry with separate dishwashing room adjacent, doctors' locker space and gown room, nurses' locker spare and gown room, janitors' closet, and a storage closet.

Glazed partitions between beds and a stretcher alcove are recommended.

4645.1500 PEDIATRIC NURSING UNIT.

Where there are 16 or more pediatric beds a separate pediatric nursing unit shall be provided. Minimum room areas shall be 100 square feet in single rooms, 80 square feet per bed in rooms having two or more beds, and 40 square feet per bassinet in nurseries. Each nursing unit shall contain a nursery with bassinets in cubicles, isolation suite, treatment room, nurses' station with adjoining toilet room, utility room, floor pantry, play room or solarium, bath and toilet room with raised free-standing tub and 50 percent children's fixtures, bedpan facilities, janitors' closet, and a storage closet.

Glazed cubicles for each bed in multibed rooms, clear glazing between rooms and in corridor partitions, and a wheel chair and stretcher alcove are recommended.

4645.1600 PSYCHIATRIC NURSING UNIT.

Where a psychiatric nursing unit is provided, the principles of psychiatric security and safety shall be followed throughout. Layout and design shall be such that the patient will be under close observation and will not be afforded opportunity for hiding, escape, or suicide. Care shall be taken to avoid sharp projections, exposed pipes, fixtures, or heating elements to prevent injury by accident. Minimum room areas shall be 100 square feet in single rooms, 80 square feet per bed in rooms having two or more beds, and 25 square feet per patient in dayrooms. Each nursing unit shall contain a doctors' office, examination room, nurses' station, dayroom, pantry, dining room, utility room, bedpan facilities, toilet rooms for each sex, shower and bathroom, continuous tub room for disturbed patients, patients' personal laundry for women's wards only, patients' locker room, storage closet for therapy equipment, stretcher closet, linen closet, supply closet, and a janitors' closet.

4645.1700 ADMINISTRATION DEPARTMENT.

Where not available in an adjoining general hospital, the following facilities shall be provided in the administration department: a business office with information counter, telephone switchboard, cashiers' window, administrator's office, medical director's office, medical record room, medical social service office, combination conference room and doctors' lounge, lobby and waiting room, public toilets, and a locker room and toilets for personnel.

For efficiency and economy of operation, a chronic disease hospital is best located as an integral part or unit immediately adjacent to and operated in connection with a large, modern, well-equipped, and completely staffed acute general hospital. Essentially all of the services of the general hospital are necessary for the complete care of the chronic disease patient. The rehabilitation services and facilities of the chronic hospital should be readily available to the acute patient in need of such services and also available on an outpatient basis. The medical and nursing staff of the general hospital can also serve the chronic unit. Some of the basic services (food service, laundry, boiler plant, etc.) can be provided through the general hospital thus making construction and operational costs less expensive.

4645.1800 ADJUNCT DIAGNOSTIC AND TREATMENT FACILITIES.

Where not available in an adjoining general hospital, adjunct diagnostic and treatment facilities shall be provided.

4645.1900 SPECIALIZED TREATMENT FACILITIES.

Subpart 1. **Physical therapy.** Space and equipment shall be provided for electrotherapy, massage, hydrotherapy, and exercise. In the larger unit, an office shall be provided for the physical therapist and a conference room shall be provided near the physical therapy area.

Subp. 2. **Occupational therapy.** Space and equipment shall be provided for diversified occupational therapy work. An exhibit space shall be provided. In the larger unit, an office shall be provided for the occupational therapist.

4645.2000 SPECIAL SERVICE ROOMS.

Where not available in the adjoining general hospital, the following special service rooms shall be provided: eye, ear, nose, and throat room; dental facilities; doctors' office; and a treatment room which may also be used as an emergency operating room. Provision shall also be made for a nurses' office and a patients' waiting room and toilets.

4645.2100 NURSING DEPARTMENT.

A nursing unit shall not exceed 50 beds unless additional services and facilities are provided. No room shall have more than six beds and not more than three beds deep from the outside wall. A quiet room shall be provided. Room locations, areas, and equipment as specified for general hospitals shall apply. In addition to the requirements for the general

hospital, the following shall be provided: bathtubs or showers in the ratio of one tub or shower for each 20 patients or fraction thereof; wheelchair parking area; treatment room, one for each two nursing units on a floor; dayrooms or solariums for each nursing floor providing 25 square feet per patient; a dining room with a minimum of 15 square feet for each ambulatory patient, which may be designed for multiple seatings; assembly room, capable of seating the entire ambulant population with ample space for wheelchairs, adjacent wash rooms and toilets adequate in size to accommodate wheelchairs; and projection facilities. Provision shall be made for beauty parlor and barber shop services.

4645.2200 SERVICE DEPARTMENT.

Subpart 1. **Kitchen area for preparation of special diets.** In addition to the requirements for the general hospital, adequate space in the main kitchen shall be provided for the preparation of special diets.

Subp. 2. **Storage.** In addition to the requirements for the general hospital, a patient's clothes storage room shall be provided. Adequate storage space shall be provided for reserve equipment.

4645.2300 SPACE ALLOWANCES FOR WHEELCHAIRS.

Space allowance shall be more generous than in other types of hospitals to allow for wheelchair traffic in such areas as dining rooms, recreation rooms, and toilets. Corridors shall be not less than eight feet wide with handrails on both sides. Water closet enclosures, urinals, showers, and tubs shall be easily accessible and provided with grab bars. Lavatories shall be of sufficient height to allow for use by wheelchair patients. Doorways shall not have raised thresholds. Ten-foot corridors are recommended. It is recommended that walls of corridors, toilet rooms, etc. be constructed of durable material to the level of the hand rails in order to withstand the impact of wheelchairs and heavy equipment. Adjustable height beds are recommended.

4645.2400 DETAILS AND FINISHES, GENERAL REQUIREMENTS FOR ALL HOSPITALS.

Subpart 1. **Ceilings.** The ceilings of the following areas shall have smooth, waterproof painted, glazed, or similar finishes: operating rooms, delivery rooms, sculleries, and kitchens. The ceilings of the following areas shall be acoustically treated: corridors in patient areas, nurses' stations, floor pantries, quiet rooms, and pediatric rooms. The ceiling of the labor room shall be acoustically treated unless it is located apart from the patient areas.

Ceiling heights shall be at least eight feet clear except for storage closets and other minor auxiliary rooms where they may be lower. Ceiling heights for laundry and kitchen shall be at least nine feet clear. Special equipment such as X-ray and surgical lights may require greater ceiling heights. Ceilings of boiler rooms located below occupied spaces shall be insulated or the temperatures otherwise controlled to permit comfortable occupancy of the spaces above.

Subp. 2. **Corridor widths.** Corridor widths shall be not less than seven feet. A greater width shall be provided at elevator entrances and in areas where special equipment is to be used.

Subp. 3. **Door widths.** Door widths shall be not less than three feet eight inches at all bedrooms, treatment rooms, operating rooms, X-ray rooms, delivery rooms, labor rooms, solariums, and physical therapy rooms. No doors shall swing into the corridor except closet doors and exit and stairway doors required to swing in the lane of egress travel. The door-swing requirement does not apply to psychiatric units or mental hospitals.

Subp. 4. **Floors.** The floors of the following areas shall have smooth, water-resistant surfaces: toilets, baths, bedpan rooms, utility rooms, janitors' closets, floor pantries, pharmacies, laboratories, and patients' rooms. The floors of the food preparation and formula rooms shall be water-resistant, grease-resistant, smooth, and resistant to heavy wear. The

floors of the operating rooms, delivery rooms, and rooms or spaces where explosive gases are used or stored shall have conductive flooring as defined in Part II of Standard No. 56, issued in May, 1954, entitled Recommended Safe Practice for Hospital Operating Rooms by the National Fire Protection Association, 60 Batterymarch Street, Boston, Massachusetts which part of said standard is hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth in and written as part of this subpart.

Subp. 5. **Laundry chutes.** Where laundry chutes are used, they shall be not less than two feet in diameter.

Subp. 6. **Stair widths.** Stair widths shall be not less than three feet eight inches. The width shall be measured between handrails where handrails project more than 3-1/2 inches. Platforms and landings shall be large enough to permit stretcher travel in emergencies.

Subp. 7. **Walls.** The walls of the following areas shall have smooth, waterproof painted, glazed, or similar finishes: kitchens, sculleries, utility rooms, baths, showers, dishwashing rooms, janitors' closets, sterilizing room, spaces with sinks or lavatories, operating rooms, and delivery rooms.

4645.2500 DESIGN DATA.

The buildings and all parts thereof shall be of sufficient strength to support all dead, live, and lateral loads without exceeding the working stresses permitted for construction materials in generally accepted good engineering practice. Special provisions shall be made for machines or apparatus loads which would cause a greater load than the specified minimum live load. Consideration shall be given to structural members and connections of structures which may be subject to severe windstorms. Floor areas where partition locations are subject to change shall be designed to support, in addition to all other loads, a uniformly distributed load of 25 pounds per square foot.

4645.2600 LIVE LOADS.

The following unit live loads shall be taken as the minimum distributed live loads for:

- A. bedrooms and all adjoining service rooms which comprise a typical nursing unit, except solariums and corridors, 40 pounds per square foot;
- B. solariums, corridors in nursing units, operating suites, examination and treatment rooms, laboratories, toilet and locker rooms, 60 pounds per square foot;
- C. offices, conference room, library, kitchen, radiographic room, corridors, and other public areas on first floor, 80 pounds per square foot;
- D. stairways, laundry, large rooms used for dining, recreation, or assembly purposes, workshops, 100 pounds per square foot;
- E. records file room, storage and supply rooms, 125 pounds per square foot;
- F. mechanical equipment room, 150 pounds per square foot;
- G. roofs, 40 pounds per square foot; and
- H. wind loads, as required by design conditions, but not less than 15 pounds per square foot for buildings less than 60 feet above ground.

4645.2700 CONSTRUCTION.

Foundations shall rest on natural solid ground and shall be carried to depth of not less than one foot below the estimated frost line or shall rest on leveled rock or load-bearing piles when solid ground is not encountered. Footings, piers, and foundation walls shall be adequately protected against deterioration from the action of groundwater. Reasonable care shall be taken to establish proper soil-bearing values for the soil at the building site. If the bearing capacity of a soil is not definitely known or is in question, a recognized load test shall be used to determine the safe bearing value. Hospitals shall be constructed of

incombustible materials, using a structural framework of reinforced concrete or structural steel except that masonry walls and piers may be utilized for buildings up to three stories in height not accounting for penthouses. The various elements of such buildings shall meet the following fire-resistive requirements:

- A. party and firewalls, four hours;
- B. exterior bearing walls, three hours;
- C. exterior panel and curtain walls, three hours;
- D. inner court walls, three hours;
- E. bearing partitions, three hours;
- F. non-load-bearing partitions, one hour;
- G. enclosures for stairs, elevators and other vertical openings, two hours;
- H. columns, girders, beams, trusses, three hours;
- I. floor panels, including beams and joists in same, two hours; and
- J. roof panels, including beams and joists in same, two hours.

Stairs and platforms shall be reinforced concrete or structural steel with hard incombustible materials for the finish of risers and treads. Rooms housing furnaces, boilers, combustible storage or other facilities which may provide fire hazards shall be of three-hour fire-resistive construction.

4645.2800 HEATING, PIPING, VENTILATION, AND AIR-CONDITIONING.

The heating system, piping, boilers, ventilation, and air-conditioning shall be furnished and installed to meet the requirements as set forth herein and the requirements of Part II of Standard No. 56, issued in May, 1954, entitled Recommended Safe Practice for Hospital Operating Rooms by the National Fire Protection Association, 60 Batterymarch Street, Boston, Massachusetts, which part of said standard is hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth in and written as part of this part. It is recommended that ventilating systems be designed for air cooling or for the future addition of air cooling.

4645.2900 BOILERS.

Boilers shall have the necessary capacity to supply the heating, ventilating, and air-conditioning systems and hot water and steam operated equipment, such as sterilizers and laundry and kitchen equipment. Spare boiler capacity shall be provided in a separate unit to replace any boiler which might break down. Standby boiler feed pumps, return pumps, and circulating pumps shall be provided.

4645.3000 HEATING.

Subpart 1. **Heating system.** The building shall be heated by a hot water, steam, or equal type heating system. Each radiator shall be provided with a hand control or automatic temperature control valve. The heating system shall be designed to maintain a minimum temperature of 75 degrees Fahrenheit in nurseries, delivery rooms, operating and recovery rooms, and similar spaces and a minimum temperature of 70 degrees Fahrenheit in all other rooms and occupied spaces. The outside design temperature for the locality shall be based on the information contained in that portion of chapter 12 of the publication, issued in 1954, entitled Heating Ventilating Air Conditioning Guide by the American Society of Heating and Ventilating Engineers, 51 Madison Avenue, New York, New York, starting with Design Outdoor Weather Conditions on page 240 and ending on page 247 which portion of chapter 12 of said guide is hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth in and written as part of this subpart.

Subp. 2. **Auxiliary heat.** Auxiliary heat supply shall be provided for heating in operating rooms, delivery rooms, and nurseries to supply heat when the main heating system is not in operation. This may be accomplished by proper separate zoning.

4645.3100 PIPING.

Subpart 1. **Pipe used in heating system.** Pipe used in heating and steam systems shall not be smaller in size than that prescribed in that portion of chapter 21 of the publication, issued in 1954, entitled Heating, Ventilating, Air Conditioning Guide, by the American Society of Heating and Ventilating Engineers, 51 Madison Avenue, New York, New York, starting with "Sizing Piping for Steam Heating Systems" on page 491 and continuing through "Sizing Piping for Indirect Heating Units" on page 506, which portion of chapter 21 of said guide is hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth in and written as part of this subpart. The ends of all steam mains and low points in steam mains shall be dripped.

Subp. 2. **Valves.** Steam return and heating mains shall be controlled separately by a valve at boiler or header. Each steam and return main shall be valved. Each piece of equipment supplied with steam shall be valved on the supply and return ends.

Subp. 3. **Thermostatic control.** The heating system shall be thermostatically controlled using one or more zones.

Subp. 4. **Coverings.** Boilers and smoke breeching shall be insulated with covering having a thermal resistance (1/c) value of not less than 1.96 and one-half inch plastic asbestos finish covered with four ounce canvas. All high-pressure steam and return piping shall be insulated with covering not less than the equivalent of one inch four-ply asbestos covering. Heating supply mains in the boiler room, in unheated spaces, unexcavated spaces, and where concealed, shall be insulated with a covering of asbestos air cell having a thickness of not less than one inch.

4645.3200 VENTILATION.

Sterilizer rooms, sterilizer equipment chambers, bathrooms, hydrotherapy rooms, garbage storage, and can washing rooms shall be provided with forced or suitable exhaust ventilation to change the air at least once every six minutes. A similar ventilating system shall be provided for rooms lacking outside windows such as utility rooms, toilets, and bedpan rooms. Kitchens, morgues, and laundries which are located inside the hospital building shall be ventilated by exhaust systems which will discharge the air above the main roof or at least 50 feet from any window. The ventilation of these spaces shall comply with the state or local codes but if no code governs, the air in the work spaces shall be exhausted at least once every ten minutes with the greater part of the air being taken from the flat work ironer and ranges. All exhaust ducts shall be provided with control dampers. Summertime ventilation rate of laundry, in excess of equipment requirements, may be introduced through doors, windows, or louvers in laundry room walls and be exhausted by exhaust fans located in walls generally opposite from intakes or arranged to provide the best possible circulation within the room. Rooms used for the storage of inflammable material shall be ventilated in accordance with the requirements of the state fire marshal. The operating and delivery rooms shall be provided with a supply ventilating system with heaters and humidifiers which will change the air at least eight times per hour by supplying fresh filtered air humidified to reduce the electrostatic hazard. Humidifiers shall be capable of maintaining a minimum relative humidity of 55 percent at 75 degrees Fahrenheit temperature. No recirculation shall be permitted. The air shall be removed from these rooms by a forced system of exhaust. The sterilizing rooms adjoining these rooms shall be furnished with an exhaust ventilating system. The supply air to operating rooms may be exhausted from operating rooms to adjoining sterilizer or work rooms from where it shall be exhausted. Exhaust systems of ventilation shall be balanced with an approximately equal amount of supply air delivered directly into the rooms or areas being exhausted or to other spaces of the hospital such as

corridors. All outdoor supply air shall be tempered and filtered. All outdoor air intake louvers shall be located in areas relatively free from dust, obnoxious fumes, and odors.

4645.3300 INCINERATOR.

An incinerator shall be provided to burn dressings, infectious materials, and amputations. When garbage is incinerated, the incinerator shall be of a design that will burn 50 percent wet garbage completely without objectionable smoke or odor. The incinerator shall be designed with drying hearth, grates, and combustion chamber lined with fire brick. The gases shall be carried to a point above the roof of the hospital. Provisions for air supply to the incinerator room shall be made. Gas- or oil-fired incinerators are desirable.

4645.3400 WATER SUPPLY.

The water supply shall be of safe sanitary quality, suitable for use, and shall be obtained from a water supply system, the location, construction, and operation of which are acceptable to the commissioner of health.

4645.3500 PLUMBING AND DRAINAGE.

Subpart 1. **Problems.** Problems of a special nature applicable to the hospital plumbing system include the following.

Subp. 2. **Vapor vent systems.** Permanently installed pressure sterilizers, other sterilizers which are provided with vent openings, steam kettles, and other fixtures requiring vapor vents shall be connected with a vapor venting system extending up through the roof independent of the plumbing fixture vent system. The vertical riser pipe shall be provided with a drip line which discharges into the drainage system through an air-gap or open fixture. The connection between the fixture and the vertical vent riser pipe shall be made by means of a horizontal offset.

Subp. 3. **Plumbing fixtures.** Water closets in and adjoining patients' areas shall be of a quiet-operating type. Flush valves in rooms adjoining patients' rooms shall be designed for quiet operation with quiet-acting stops. Gooseneck spouts and wrist-action controls shall be used for patients' lavatories, nursery lavatories, and sinks which may be used for filling pitchers. Foot, knee, or elbow-action faucets shall be used for doctors' scrub-up, including nursery work room; utility and clinic sinks; and in treatment rooms. Elbow or wrist-action spade handle controls shall be provided on other lavatories and sinks used by doctors or nurses.

Subp. 4. **Special precautions for mental patients.** Plumbing fixtures which require hot water and which are accessible to mental patients shall be supplied with water which is thermostatically controlled to provide a maximum water temperature of 110 degrees Fahrenheit at the fixture. Special consideration shall be given to piping, controls, and fittings of plumbing fixtures as required by the types of mental patients. No pipes or traps shall be exposed and fixtures shall be substantially bolted through walls. Generally, for disturbed patients, special-type water closets without seats shall be used and shower and bath controls shall not be accessible to patients.

Subp. 5. **Hot water heaters and tanks.** The hot water heating equipment shall have sufficient capacity to supply at least five gallons of water at 150 degrees Fahrenheit per hour per bed for hospital fixtures, and at least eight gallons at 180 degrees Fahrenheit per hour per bed for the laundry and kitchen. The hot water storage tank or tanks shall have a capacity equal to 80 percent of the heater capacity. Where direct-fired hot water heaters are used, they shall be of the high-pressure cast iron type. Submerged steam heating coils shall be of copper. Storage tanks shall be of corrosion-resistant metal or be lined with corrosion-resistant material. Tanks and heaters shall be fitted with vacuum and relief valves, and where the water is heated by coal or gas, they shall have thermostatic relief valves. Heaters shall be thermostatically controlled.

Subp. 6. **Water supply systems.** Cold water and hot water mains and branches from the cold water service and hot water tanks shall be run to supply all plumbing fixtures and equipment which require cold or hot water or both for their operation. Pressure and pipe size shall be adequate to supply water to all fixtures with a minimum pressure of 15 pounds at the top floor fixtures during maximum demand periods. Where booster systems are necessary, water shall be supplied to the booster pump through a receiving tank in which the water level is automatically controlled. The receiving tank shall have a properly constructed and screened opening to the atmosphere and a watertight, overlapping cover. The receiving tank and booster pump shall be situated entirely above the ground level. If a pressure tank is employed in the booster system, it shall also be situated above ground level. Hot water circulating mains and risers shall be run from the hot water storage tank to a point directly below the highest fixture at the end of each branch main. Where the building is higher than three stories, each riser shall be circulated.

Subp. 7. **Roof and area drainage.** Leaders shall be provided to drain the water from roof areas to a point from which it cannot flow into the basement or areas around the building. Courts, yards, and drives which do not have natural drainage from the building shall have catch basins and drains to low ground, storm water system, or dry wells. Where dry wells are used, they shall be located at least 20 feet from the building.

Subp. 8. **Valves.** Each main, branch main, riser, and branch to a group of fixtures of the water systems shall be valved.

Subp. 9. **Insulation.** Hot water tanks and heaters shall be insulated with covering equal to one inch, four-ply air cell. Hot water and circulating pipes shall be insulated with covering equal to canvas jacketed three-ply asbestos air cell. Cold water mains and exposed rain water leaders in occupied spaces and in store rooms shall be insulated with canvas-jacketed felt covering to prevent condensation. All pipes in outside walls shall be insulated to prevent freezing.

Subp. 10. **Tests.** Water pipe shall be hydraulically tested to a pressure equal to twice the working pressure.

4645.3600 STERILIZERS.

Sterilizers and autoclaves of the required types and necessary capacity shall be provided to sterilize instruments, utensils, dressings, water, and other materials and equipment. The flasking system for sterile water supply is recommended. The sterilizers shall be of recognized hospital types with approved controls and safety features.

4645.3700 SEWAGE AND WASTE DISPOSAL.

All building sewage shall be discharged into a municipal sanitary sewer system, if available, otherwise an independent sewage disposal system shall be provided which is constructed in accordance with the requirements of the commissioner of health.

4645.3800 GAS PIPING.

Gas appliances shall bear the stamp of approval of the American Gas Association. Oxygen piping outlets and manifolds where used shall be installed in accordance with publication No. 565, issued in 1951, entitled Standard for Nonflammable Medical Gas Systems by the National Fire Protection Association, 60 Batterymarch Street, Boston, Massachusetts, which standard is hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth and written as part of this part.

4645.3805 REFRIGERATION.

Subpart 1. **Extent of coverage.** This part shall include portable refrigerators, built-in refrigerators, garbage refrigerators, ice-making and refrigerator equipment, and morgue boxes.

Subp. 2. **Box construction.** Boxes shall be lined with nonabsorbent sanitary material which will withstand the heavy use to which they will be subjected and shall be constructed so as to be easily cleaned. Refrigerators of adequate capacity shall be provided in all kitchens and other preparation centers where perishable foods will be stored. In the main kitchen, a minimum of two separate sections or boxes shall be provided, one for meats and dairy products, and one for general storage.

Subp. 3. **Refrigerator machines.** Toxic, "irritant," or inflammable refrigerants shall not be used in refrigerator machines located in buildings occupied by patients. The compressors and evaporators shall have sufficient capacity to maintain temperatures of 35 degrees Fahrenheit in the meat and dairy boxes, and 40 degrees Fahrenheit in the general storage boxes when the boxes are being used normally. Compressors shall be automatically controlled.

Subp. 4. **Tests.** Compressors, piping, and evaporators shall be tested for leaks and capacity.

4645.3900 ELECTRICAL SYSTEMS.

Electrical systems shall be furnished and installed to meet the requirements as set forth herein and the requirements of part 2 of the Standard No. 56 issued in May 1954, entitled "Recommended Safe Practice for Hospital Operating Rooms," by the National Fire Protection Association, 60 Batterymarch Street, Boston, Massachusetts, which part of said standard is hereby adopted by the commissioner of health with the same force and effect as if the same were fully set forth and written as part of this part.

4645.4000 FEEDERS AND CIRCUITS.

Separate power and light feeders shall be run from the service to a main switchboard and from there, subfeeders shall be provided to the motors and power and light distributing panels. Where there is only one service feeder, separate power and light feeders from the service entrance to the switchboard will not be required. From the power panels, feeders shall be provided for large motors, and circuits from the light panels shall be run to the lighting outlets. Large heating elements shall be supplied by separate feeders from the local utility and installed as directed. Independent feeders shall be furnished for X-ray equipment.

4645.4100 LIGHT PANELS.

Light panels shall be provided on each floor for the lighting circuits on that floor. Light panels shall be located near the load centers not more than 100 feet from the farthest outlet.

4645.4200 LIGHTING OUTLETS, RECEPTACLES, AND SWITCHES.

All occupied areas shall be adequately lighted as required for the duties performed in the space. Patients' bedrooms shall have as a minimum: general illumination, a bracket or receptacle for each bed, a duplex receptacle for each two beds for doctor's examining light, and a night light. Where ceiling lights are used in patients' rooms, they shall be of a type which does not shine in the patients' eyes. The outlets for night lights shall be independently switched at the door. Receptacles for special equipment shall be of a heavy duty type on separate circuits. Switches in patients' rooms shall be of an approved mercury or equal, quiet-operating type, except for cord operated switches on fixtures. No lighting fixtures, switches, receptacles or electrical equipment shall be accessible to disturbed mental patients. Operating and delivery rooms shall be provided with special lights for the tables, each on an independent circuit, and lights for general illumination. Not less than three explosion-proof receptacles shall be provided in each operating and delivery room except that the explosion-proof type will not be required if the receptacles are above the five-foot level. Each operating room shall have a film-viewing box. All switches, viewing boxes, and equipment controls installed below the five-foot level shall be explosion-proof.

4645.4300 EMERGENCY ELECTRICAL SYSTEM.

Each hospital shall have a source of emergency power which may be an entirely separate outside source from an independent generating plant, a generator operated by a prime mover, or a battery with adequate means for charging. Where the installation consists of a standby generator operated by a prime mover, it shall be of a size sufficient to supply all estimated current demands for required areas. The system shall be so arranged that, in the event of failure of the principal source of current, the emergency system shall be automatically placed in operation. Emergency lighting shall be provided for: stairs; exits; patient corridors; corridors leading to exits; exit signs; operating, delivery, and emergency rooms; telephone switchboard room; nurseries; emergency generator room; boiler room; and all psychiatric patient areas.

It is recommended that emergency power be provided for the operation of at least one boiler.

4645.4400 NURSES' CALL.

Each patient shall be furnished with a nurses' call which will register at the corridor door, at the nurses' station, and in each floor kitchen and utility room of the nursing unit. A duplex unit may be used for two patients. Indicating lights shall be provided at each station where there are more than two beds in a room. Nurses' call stations will not be required for psychiatric occupancies, pediatric rooms, and nurseries where an emergency call shall be available in each room for the use of the nurse. A call station shall be provided in each operating and delivery room.

4645.4500 NUMBER OF CARS.

Any hospital with patients on one or more floors above the first floor or where the operating or delivery rooms are not on the first floor shall have at least one mechanically driven elevator. Hospitals with a bed capacity of from 60 to 200 above the first floor shall have not less than two elevators. Hospitals with a bed capacity of from 200 to 350 above the first floor shall have not less than three elevators, two passenger and one service.

4645.4600 CABS.

Cabs shall be constructed with fireproof material. Passenger cab platforms for the minimum required number of elevators shall be not less than five feet four inches by eight feet with a capacity of at least 3,500 pounds. Cab and shaft doors shall be not less than three feet ten inches clear opening. Service elevators shall be of sufficient size to receive a stretcher with patient.

4645.4700 CONTROLS.

Elevators, for which operators will not be employed, shall have automatic push-button control, signal control, or dual control for use with or without operator. Where two push-button elevators are located together and where one such elevator serves more than three floors and basement, they shall have collective or signal control. Where the car has a speed of more than 100 feet per minute or has a rise of four or more floors, the elevator shall be equipped with automatic self-leveling control which will automatically bring the car platform level with the landing with no load or full load. Multivoltage or variable voltage machines shall be used where speeds are greater than 150 feet per minute. For speeds above 350 feet per minute, the elevators shall be of the gearless type.

4645.4800 DUMBWAITERS.

Dumbwaiter cabs shall be not less than 24 inches by 24 inches by 36 inches of steel with one shelf to operate at a speed of 50 feet to 100 feet per minute when carrying a load of 100 pounds. Dumbwaiters serving basement and four floors shall have a minimum speed of 100 feet per minute.

4645.4900 TESTS.

Elevator machines shall be tested for speed and load with and without loads in both directions and shall be given overspeed tests as required by the Minnesota Department of Labor and Industry.

4645.5100 KITCHEN EQUIPMENT FOR ALL HOSPITALS.

Subpart 1. **Equipment.** The equipment shall be adequate, properly constructed, and so arranged as to enable the storage, preparation, cooking, and serving of food and drink to patients, staff, and employees to be carried out in an efficient and sanitary manner. The equipment shall be selected and arranged in accordance with the types of food service adopted for the hospital. Cabinets or other enclosures shall be provided for the storage or display of food, drink, and utensils and shall be designed as to protect them from contamination by insects, rodents, other vermin, splash, dust, and overhead leakage. All utensils and equipment surfaces with which food or drink comes in contact shall be of smooth, nontoxic, corrosion-resistant material, free of breaks, open seams or cracks, chipped places, and V-type threads. Sufficient separation shall be provided between equipment and the walls or floor to permit easy cleaning or the equipment shall be set tight against the walls or floor and the joint properly sealed.

Subp. 2. **Dishwashing facilities.** The necessary equipment shall be provided to accomplish either of the two methods of dishwashing as described under part 4640.2900.

4645.5200 LAUNDRY FOR ALL HOSPITALS.

Where laundries are provided, they shall be complete with washers, extractors, tumblers, ironers, and presses which shall be provided with all safety appliances and meet all sanitary requirements.