Texas Department of State Health Services

Hospital Licensing Rules

June 21, 2007

Physical Plant and Spatial Requirements

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Objectives

- Revision Work Group Makeup
- Mandatory Rules and Codes
- Changes to the Physical Plant, General Construction Requirements
- Changes to the Spatial Requirements
- Questions

Revision Group

- Revision Workgroup for physical plant and construction environment.
  - Starting in January 2005 and for the next 5 months the workgroup met 8 times for more than 50 hours, reviewing and making comments to the 1998 edition of the Hospital Licensing Rules.
  - The 17 member revision group consisted of hospital plant engineers of rural, small and large hospitals, architects, engineers and consultants who specialize in healthcare in the State of Texas, and a legal representative of THA.
  - ARG consulted with the Texas Pharmacy Board to write the specific federal guidelines for Rule 797.
Revision Group

- Reviewed numerous requests from private interest groups.

Language usage:
- "shall" and "when"

Rules and Codes

- New Hospital Rules – Effective June 21, 2007
- Codes – National Fire Protection Association (NFPA)
  - NFPA 30 - Health Care Facilities – 2002
  - NFPA 10 - Standard for Portable Fire Extinguishers – 2002
  - NFPA 13 - Standard for Installation of Sprinkler System – 2002
  - NFPA 45 - Standards for Bulk Oxygen Systems @ Consumer sites – 2001
  - NFPA 54 - National Fuel Gas code – 2002
  - NFPA 70 - National Electrical Code - 2002
  - NFPA 220 - Standard on Types of Building Construction – 1999
  - NFPA 221 - Standard for Fire Walls and Fire Barrier Walls – 2000
  - NFPA 410 - Standard for Heliports – 2001

Review of the New Hospital General Requirements

- Horizontal Sliding Doors - §123.162(d)(2)(iv) (New)
  - Horizontal sliding doors serving an occupant load of fewer than 10 shall be permitted. The area served by the door has no high hazard contents. The door is readily operable from either side without special knowledge or effort. The force required to operate the door in the direction of door travel is not more than 30 pounds per foot to set the door in motion and is not more than 15 pounds per foot to close the door or open in the minimum required width. The door assembly complies with any required fire protection rating, and, where rated, is self-closing or automatic closing. The sliding doors opening to the egress corridor doors shall have a latch or other mechanism that ensures that the doors will not rebound into a partially open position if forcefully closed. The sliding doors may have breakaway provisions and shall be installed to resist passage of smoke. The latching sliding panel shall have a minimum clear opening of 41.5 inches in the fully open position. The fixed panels may have recessed tracks.
Review of the New Hospital General Requirements

- Alcohol-based Hand Rubs - §133.162(a)(2)(iv) (does not replace or substitute for handwashing fixtures) (New)
  - Alcohol-based hand rubs (ABHRs) are considered flammable.
    - When used, the ABHRs shall meet the following requirements:
      - The dispensers may be installed in a corridor so long as the corridor width is six feet or greater. The dispensers shall be installed at least four feet apart.
      - The maximum individual dispenser fluid capacity is 1.2 liters for dispensers in rooms, corridors, and areas open to corridors, and 2.0 liters for dispensers in suites of rooms.
      - The dispensers shall not be installed over or directly adjacent to electrical outlets and switches.
      - Dispensers installed directly over carpeted surfaces shall be permitted only in sprinklered smoke compartments.
      - Each smoke compartment may contain a maximum aggregate of 10 gallons of ABHR solution in dispensers and a maximum of five gallons in storage.

- X-ray viewing area. When the entire suite is provided with digital imaging system capabilities, a minimum of two X-ray film illuminator viewers shall be provided. The film illuminators shall be mounted within the central area of the suite. (New)
- Soil utility/workroom/holding. Ceilings in the soiled room shall be monolithic type. (New)
- Exam Rooms. 100 square feet clear floor area.
  - Require medical gas – 1 Oxygen, 1 Vacuum
- Treatment rooms. 120 square feet clear floor area.
  - Require medical gas – 1 Oxygen, 1 Vacuum

- Ice machines. Ice machine shall be provided for therapeutic purposes may be a bin type. All ice machine used for human consumption shall be of the self-dispensing type.
- Soap dispensers. A liquid or foam soap dispenser shall be located at each hand washing facility. (New)
- Hand drying. Provisions for hand drying shall be included at all hand washing facilities except scrub sinks. There shall be hot air dryers or individual paper or cloth units enclosed in such a way as to provide protection against dust or soil and ensure single-unit dispensing.
Review of the New Hospital
General Requirements

- General Comments (Cont.)
  - Signage. A sign shall be posted at the entrance to each toilet/restroom to identify the facility for public, staff or patient use. Signs are not required for patient room bathrooms. (New)
  - Ventilation for anesthetizing locations.
    - Ventilation for anesthetizing locations, as defined in NFPA 99, §3.3, shall comply with NFPA 99, §13.4.1.2, and any specific ventilation requirements for the particular unit in accordance with §133.163 of the hospital licensing unit.

- Review of the New Hospital
General Requirements

- General Comments (Cont.)
  - Smoke removal systems for windowless anesthetizing locations
    - Smoke removal systems shall be provided in all windowless anesthetizing locations in accordance with NFPA 99, §6.4.1.2
  - Smoke removal systems for surgical suites.
    - Smoke removal systems shall be provided in all surgical suites in accordance with NFPA 99, §6.4.1.3.
  - Smoke exhaust grilles.
    - Exhaust grilles for smoke evacuation systems shall be ceiling-mounted or wall-mounted within 12 inches of the ceiling.

- Review of the New Hospital
General Requirements

- General Comments – Piping - §133.162(d)(4)
  - Water supply systems.
    - Water service pipe to point of entrance to the building shall be brass pipe, copper tube (not less than type M when buried directly), copper pipe, cast iron water pipe, galvanized steel pipe, or approved plastic pipe.
    - Domestic water distribution system piping within buildings shall be brass pipe, copper pipe, copper tube, or galvanized steel pipe.
Review of the New Hospital General Requirements

- General Comments (Cont.)
  - Purified water supply system.
    - Purified water distribution system piping shall be task specific and include, but not necessarily be limited to, Polypropylene (PP), Polyvinylidene fluoride (PVDF) or Polyvinyl Chloride (PVC) pipe.
  - Drainage systems
    - Above ground piping. Soil stacks, drains, vents, waste lines, and leaders installed above ground within buildings shall be drain-waste-vent (DWV) weight or heavier and shall be: copper pipe, copper tube, cast iron pipe, or galvanized pipe.

- General Comments (Cont.)
  - Underground piping.
    - All underground building drains shall be: cast iron soil pipe, hard temper copper tube (DWV or heavier), acrylonitrile-butadiene-styrene (ABS) plastic pipe (DWV Schedule 40 or heavier), polyvinyl chloride (PVC) plastic pipe (DWV Schedule 40 or heavier), or extra strength vitrified clay pipe (VCP) with compression joints or couplings with at least 12 inches of earth cover.
  - Drains for chemical wastes.
    - Separate drainage systems for chemical wastes (acids and other corrosive materials) shall be provided. Materials acceptable for chemical waste drainage systems shall include chemically resistant glass pipe, high silicone content cast iron pipe, VCP, plastic pipe, or plastic lined pipe.

- General Comments (Cont.)
  - Dead-end piping. §133.162(d)(4)(A)(ii)(x)
    - Dead-end piping (risers with no flow, branches with no fixture) shall not be installed. In any renovation work, dead-end piping shall be removed. Empty risers, mains and branches installed for future use are permitted. (New)
  - Flood level rim clearance. The water supply spout for lavatories and sinks required in patient care areas shall be mounted so that its discharge point is a minimum of five inches above the rim of the fixture. (New)
  - Multiple gas outlets on one medical gas outlet. Y-connections, “twinning”, or other similar devices shall not be used on any medical gas outlet. (New)
Review of the New Hospital
General Requirements

- General Comments (Cont.)

  - Emergency water supply - §133.162(d)(4)(A)(ii)(VIII)
    - Emergency potable water storage facilities shall be provided. The storage capacity shall not be less than 500 gallons or 12 gallons per licensed patient bed, whichever is greater. Capacity of hot water storage tanks may be included as part of the required emergency water capacity when valves and piping systems are arranged to make this water available at all times.
    - When bottled water for emergency is used in lieu of water storage facilities, the hospital shall maintain and ensure the required amount of bottled water supply on hand at all times, maintain an inventory record which reflects the rotation and replacement of expired bottled water, and have adequate storage space on site that is readily accessible by staff in the event of an emergency. The hospital shall ensure the continued availability and delivery of bottled water until the occupancy is abandoned or ceased. [New]

Review of the New Hospital
General Requirements

- General Comments (Cont.)

  - Qualifications for conducting verification tests and inspections for Medical Gas Systems - §133.162(d)(4)(A)(ii)(IV)
    - Verification testing shall be performed and inspected by a party, other than the installer, installing contractor, or material vendor. Testing shall be conducted by a registered medical gas system verifier and technically competent and experienced in the field of medical gas and vacuum pipeline testing and meeting the requirements of ANAI/ASSE Standard 6030, Medical Gas Verifiers Professional qualifications standard. [New]

Review of the New Hospital
General Requirements

- General Comments - Electrical

  - Emergency electric service - §133.162(d)(5)(M)
    - When the emergency and standby power systems require a fuel source with tank, the fuel storage capacity tank shall have enough fuel for a period of 24 hours. [New]
      - When a vapor liquefied petroleum gas (LPG) systems (natural gas) system is used, the 24-hour fuel capacity on-site is not required. The vapor withdrawal LPG system shall require a dedicated fuel supply.
      - When the emergency generator(s) and electrical transformer(s) are located within the same area, they shall be located at least 10 feet apart. [New]
Review of the New Hospital
General Requirements

General Comments – Electrical (Cont.)

- Grounding system testing - §133.162(d)(5)(B)(ii)
  - The grounding system shall be tested as described in NFPA 99, 4.3.3, for patient care areas in new or renovated work. The testing shall be performed by a qualified electrician or their qualified electrical testing agent. The electrical contractor shall provide a letter stating that the grounding system has been tested in accordance with NFPA 99, the testing device use complies with NFPA 99, and whether the grounding system passed the test. The letter shall be signed by the qualified electrical contractor, or their designated qualified electrical testing agent, certifying that the system has been tested and the results of the test are indicated. (New)

- Installation of Multiple ganged receptacles shall not be permitted in patient care areas. (New) - §133.162(d)(5)(H)(i)
- Ground Fault Circuit Interrupters (GFCI) shall be provided for ALL general use receptacles located within three feet of a wash basin or sink. (New) - §133.162(d)(5)(J)
  - Each work table or counter shall have access to one duplex receptacles for every six feet of table or counter space or fraction thereof. (New) - §133.163(t)(5)(v)
- NFPA 99, 3.4.1.2.6.1 - Wiring in Anesthetizing Locations. One or more battery-powered emergency lighting units shall be provided as required in NFPA 70 (NEC), Section 700.12(e) (New)
  - Nurse Calling Systems
  - See Table 7 §133.169(g) – (New)

Spatial Requirements - New Construction: §133.163(d)

- Critical Care Unit: §133.163(d)
  - For open ward environments in adult and pediatric units, the clearance between a bed and a wall/partition shall be a minimum of five feet. The clearance between sides of beds shall be a minimum of eight feet. The minimum distance at the foot of the bed shall not be less than seven feet for single load area/room or ten feet for double load area/room. Four feet of the passage space requirement at the foot of the bed may be shared between two beds. The multiple-bed CCU wards shall contain cabinets, work counters, and hand washing fixtures with hands-free operable controls. The fixed and moveable cabinets and shelves shall not encroach upon the bed/gurney clear floor space/area. The requirements of this clause are illustrated in Table 8, Diagrams A and B of §133.169(h) of this title (relating to Tables). (New)
Review of the New Hospital Spatial Requirements

- Neonatal Critical Care Unit has moved from the CCU suite to Obstetrical Suite.
- Dietary Suite: §133.163(e)(viii)
  - Ware washing room. A ware washing room equipped with commercial type dishwasher equipment shall be located separate from the food preparation and serving areas. Space shall be provided for receiving, scraping, sorting, and stacking soiled tableware and for transferring clean tableware to the using areas. Hand washing facilities with hands-free operable controls shall be located within the soiled dish wash area. A physical separation to prevent cross-traffic between "dirty side" and "clean side" of the dish wash areas shall be provided.

Review of the New Hospital Spatial Requirements

- Emergency Suite - §133.163(f)
  - Emergency treatment room. As a minimum requirement, ALL hospitals shall provide at least one emergency treatment room and facilities to handle emergencies. The emergency treatment room for a single patient shall have a minimum clear area of 120 square feet clear floor area exclusive of fixed and movable cabinets and shelves. (New)
  - Additional emergency requirements for a general hospital. Except for comprehensive medical rehabilitation hospitals and pediatric and adolescent hospitals that generally provide care that is not administered for or in expectation of compensation, a general hospital shall also meet the following requirements.

Review of the New Hospital Spatial Requirements

- Emergency entry signage - §133.163(f)(1)(ii)(I)
  - An emergency sign shall be provided at the entry from the public road(s) or street(s) serving the site. The emergency sign at the entry to the site shall be illuminated and connected to the emergency essential electrical system. Additional sign(s) on-site may be required to direct patients to the emergency treatment area entrance when the emergency treatment area is not visible from the site entry. The letters on the entry sign shall be red with a contrasting background, all capitalized, at least eight inches in height, and an arrow indicating direction. (New)

Entrances.
- Separate ambulance and pedestrian entrances at grade level shall be well-illuminated, identified by signs, and protected from inclement weather. The emergency entry shall have a drive under canopy for protection from inclement weather. The emergency access to permit discharge of patients from automobile and ambulances shall be paved. Parking shall be provided near and convenient to the pedestrian entrance. (New)
Review of the New Hospital Spatial Requirements

- **Trauma center** - §133.163(f)(1)(G)
  
  (Level 1 - EMS designation)
  
  A minimum of one trauma room shall be provided with 250 square feet of clear floor area exclusive of aisles and fixed and moveable cabinets and shelves.

  When a trauma room is provided under §133.163(f)(1)(G)(i), the air supply for the trauma/surgical room shall be from ceiling outlets that are as near the work centers as possible, and a minimum of two low return inlets shall be located diagonally opposite from one another. (New)

- **Decontamination room** - §133.163(f)(1)(i)(vii) (at the ED.)

  A decontamination room shall have an exterior entry point and as far as practical from any other entry point to the emergency treatment area. The internal door from the decontamination room shall open directly to the corridor into the emergency treatment area. The door shall swing into the room and be lockable against ingress from the corridor. The room shall be a minimum of 80 square feet of clear floor area with a hand washing fixture with hands-free operable controls. (New)

- **Emergency clinic** - §133.163(f)(1)(i)(D)
  
  When an emergency clinic (which may also be referred to as “urgent care”, “fast track”, “express care”, “minor care”, etc.) is provided, the clinic shall be separate and distinct from the emergency treatment area and trauma center and shall meet all the requirements of subparagraph (A) of this paragraph. All facilities required by subparagraph (A) of this paragraph may be shared with the emergency treatment area and trauma center except for the emergency treatment room. The emergency treatment room(s) in the emergency clinic shall not be less than 100 square feet. The emergency exam room(s) in the emergency clinic shall not be less than 80 square feet.
Review of the New Hospital Spatial Requirements

- Holding or Observation Room/Area - §133.163(f)(1)(B)
  - A single holding/observation room shall have a minimum clear area of 100 square feet exclusive of fixed and movable cabinets and shelves. The holding/observation room shall contain a work counter and hand washing fixture with hands-free operable controls.
  - The single holding/observation room shall be near the nurses station and near a patient toilet room which contains a hand washing fixture with hands-free operable controls. (New)

- Employees Suite - §133.163 (g)
  - Lockers, lounges, toilets and showers shall be provided within the hospital for employees and volunteers. These facilities are in addition to, and separate from, those required for the medical staff and the public.

- General Stores - §133.163 (i)
  - General storage room with a total area of not less than 20 square feet per inpatient bed shall be provided. The storage room may be within the facility, or separate building on-site. Fifty percent of the storage may be provided off-premises. When additional inpatient beds are constructed, additional general storage shall be provided. (New)

- Imaging Suite - §133.163 (l)
  - Each hospital shall have a diagnostic radiographic (X-ray) room convenient to emergency, surgery, cystoscopy, and outpatient suites. All diagnostic imaging room sizes shall be in compliance with the manufacturer's recommendations for the specific equipment. Clearance and unobstructed space shall not be less than three feet around the diagnostic equipment. (New)

- Imaging Suite (Cont.) - §133.163 (l)
  - When mammography services are provided, the room(s) shall have a minimum clear floor area of 100 square feet exclusive of built-in shelves or cabinets. (New)
  - A 3T or larger magnetic strength MRI shall be secured behind locked doors. The patient and staff entrance to the MRI shall have a traffic pattern from the waiting, dressing, holding and work areas through a lockable control station before entering the MRI. At no time shall patients or nonpatients be allowed to enter this restricted area without MRI staff present when the magnet is active. (New)
Review of the New Hospital Spatial Requirements

- **Intermediate care suite** (Step down suite) - §133.163 (m) (New)
  - Intermediate care units are acute care patients who require frequent monitoring that exceed the level of care for nursing units and less than that provided in critical care units.
  - In a single-bed patient room, the minimum clear floor area shall be 150 square feet exclusive of anterooms, vestibules, toilet rooms, closets, lockers, wardrobes, and/or alcoves. A minimum of 12 feet width shall be provided for the head wall for each bed. A hand washing fixture with hands-free operable controls shall be located in the patient room and in the patient bathroom.
  - In a multi-bed intermediate care patient room the maximum capacity shall be no more than four patients per room. The ward shall contain cabinets, work counter, and washing fixture with hands-free operable controls located centrally to the beds. The fixed and moveable cabinets.

- **Intermediate care suite** (Step down suite) (cont)
  - Each single-bed or multi-bed open ward patient room shall have access to a bathroom without having to enter the general corridor area. Each bathroom shall contain a toilet, a hand washing fixture with hands-free operable controls, bathing facilities, and a storage shelf or cabinet.
  - The nurse station shall be located to permit direct visual observation of each patient served. Video cameras or mirrors shall not be substituted for direct visual observation. In multi-bed intermediate care patient room the nurse station shall be located within the room and have space for counters and storage.

- **Laboratory suite** - §133.163(n)
  - Minimum laboratory facilities. When laboratory services are provided off site by contract, the following minimum facilities shall be provided within the hospital.
  - The laboratory workroom shall include a counter and a sink with hands-free operable controls.
  - Cabinets or closets shall be provided for supplies and equipment used in obtaining samples for testing. A refrigerator or other similar equipment shall be provided for specimen storage waiting for transfer to off-site testing.
  - Refrigerated blood storage facilities for transfusions shall be provided. The blood storage refrigerator shall be equipped with temperature monitoring and alarm signals.
  - A blood collection area shall be provided with a counter, space for seating, and hand washing fixture with hands-free operable controls.
  - A toilet and lavatory with hands-free operable controls shall be provided for specimen collection. This facility may be outside the laboratory suite if conveniently located.
Review of the New Hospital Spatial Requirements

- Morgue - §133.163(r)
  When a morgue or body-holding room is provided, it shall be located to avoid the need for transporting bodies of deceased patients through public areas. A body-holding room shall be provided as a minimum for a general hospital. (New)

- Nuclear Medicine Suite - §133.163(s)
  Direction of air flow of the HVAC system shall be from nonradioactive spaces into the radioactive spaces. A minimum of two return air inlets located diagonally opposite from one another and near floor level shall be provided. (New)

Review of the New Hospital Spatial Requirements

- Nursing Unit - §133.163(t)
  The maximum patient room capacity shall be two patients. In existing facilities where renovation work is undertaken and the present capacity is more than two patients, the maximum room capacity shall be no more than the present capacity with a maximum of four patients.
  In a single-bed patient room, the minimum clear floor area shall be 120 square feet.
  Multi-bed (two) patient room, the clearance between the side of a bed and a wall/partition shall be a minimum of three feet. The spacing requirements of this clause are illustrated in Table 8, Diagram G of §133.169(h) of this title. (New)

- Nursing Unit (cont.)
  Airborne infection isolation suites. A minimum of one isolation suite shall be provided for each 30 acute care beds or fraction thereof. The suite may be located within a nursing unit or in a separate isolation unit.
  At least one airborne infection isolation suite with an enclosed anteroom shall be provided.
  Pressure differential monitors or air flow devices shall be installed outside the isolation room and anteroom. Devices shall be installed in corridors, passageways, etc. (New)
## Review of the New Hospital Spatial Requirements

### Nursing Unit (cont.)
- A door(s) from an anteroom to an airborne infection isolation room(s) and a door(s) from an egress corridor into an anteroom shall be provided with a self-closing device(s). When an isolation room does not have an anteroom, the door from the egress corridor into the isolation room shall be provided with a self-closing device. When sliding doors are used in isolation rooms the self-closing device may not be required as long as assurances of negative air pressure are met when sliding doors are opened. (New)
- Vision panels shall be provided in the door between an anteroom and an airborne infection isolation room or a protective environment room.

### Review of the New Hospital Spatial Requirements

### Nursing Unit (cont.)
- Special assisted bathing facilities, including space for attendant, for patients on stretchers, carts, and wheelchairs at the ratio of one per 100 beds or a fraction thereof. This may be on another floor if convenient for use.
- Each general hospital shall provide at least one private patient room for patients needing close supervision for medical and/or psychiatric care.
- Monolithic ceilings described in §133.162(d)(2)(B)(vi)(III) of this title shall be provided in airborne infection isolation rooms, protective environment rooms, and soiled workrooms. (New)

### Review of the New Hospital Spatial Requirements

### Obstetrical suite - §133.163(u)
- When obstetrical services are provided, the obstetrical suite shall be located and arranged to preclude unrelated traffic through the suite.
  - Regardless of the clinical model used for labor, delivery, recovery and postpartum, a hospital offering such services shall be able to demonstrate the availability of one room designed, equipped and held in reserve for emergency caesarean section deliveries. This room shall be located either in the labor and delivery suite or surgical suite. (New)
Review of the New Hospital Spatial Requirements

- Obstetrical suite (cont.)
  - A minimum of one dedicated c-section operating room shall be located in either the obstetrical or surgical suite. This room shall have a minimum clear floor area of 360 square feet with a minimum dimension of 18 feet exclusive of built-in shelves or cabinets. There shall be no direct access between operating rooms.
  - A minimum of one delivery room shall be provided in every obstetrical suite. The delivery room shall have a minimum clear floor area of 300 square feet with a minimum dimension of 16 feet exclusive of fixed and moveable cabinets and built-in shelves. In facilities having only one c-section operating room, the delivery room shall be designed to function as an emergency c-section operating room. When two c-section operating rooms are provided, the delivery room requirement may be omitted.

- Infant resuscitation area  - §133.163(u)(1)(D)
  - An infant resuscitation space shall be provided within the c-section operating room; delivery room; labor, delivery, and recovery room (LDR); and labor, delivery, recovery and postpartum room (LDRP) with a minimum clear floor area of 40 square feet in addition to the required area of each room or may be provided in a separate but immediately accessible room with a clear floor area of 150 square feet.

- Continuing care nursery suite  - §133.163(u)(1)(M)
  - Hospitals with 25 or more maternity beds shall provide a continuing care nursery for infants requiring close observation. The suite shall have a maximum of 16 infant stations........ (New – Designed Bed)

- Neonatal critical care unit (NCCU)  - §133.163(u)(1)(O)
  - When an NCCU is provided, the unit shall comply with the following.
    - The NCCU shall be conveniently located near the obstetrical suite and be arranged to preclude unrelated traffic.
    - Each room and ward shall be located on an exterior wall and shall have a window. In a ward, one window may serve more than one patient. The window sill height shall not exceed five feet above the floor. Patient beds shall not be located more than 50 feet from an exterior window. Patients' views to outside windows shall be direct....
Review of the New Hospital Spatial Requirements

- **Outpatient suite** - §133.163(v)
  - Outpatient services that the hospital provides to patients under the hospital license shall be within the hospital. Outpatient services and facilities (diagnostics, imaging, surgical, etc.) may be provided throughout the hospital within other suites, departments or units within the hospital. When an organized outpatient suite is provided for the hospital, it shall be in one identifiable contiguous location within the hospital and meet all the elements described in this subsection. To be included in the hospital license, the outpatient suite located in an office building or other building, shall be physically connected to the hospital and become contiguous to the hospital. In no case may one leave the hospital, traverse the other occupancies, and then reenter the hospital to access the remaining portion of the hospital. A hospital may not occupy two or more noncontiguous areas of nonhospital occupancies, which contain intervening space of the nonhospital occupancies even if on the same floor or other floors. Outpatient facilities physically connected to the hospital with a common wall or an enclosed connection shall comply with the requirements of NFPA 101, Chapter 18.

- **Renal dialysis suite** - §133.163(bb)
  - Outpatient renal dialysis shall not be performed in the hospital’s inpatient renal dialysis suite. When outpatient renal dialysis is provided within a hospital building, the service and facilities shall be separated from the hospital with a two-hour fire rated partition. The owner of the outpatient renal dialysis facility must obtain a separate license under Texas Health and Safety Code, Chapter 251, End Stage Renal Disease Facilities. Mechanical, electrical and plumbing services may be contracted from the hospital and the hospital shall maintain all rights and controls of all systems. When inpatient renal dialysis services are provided, the following rooms or areas shall be included. (New)

- **Special procedure suite** - §133.163(dd)
  - When special procedures such as endoscopy, bronchoscopy, and cardiac catheterization and other similar special procedures are provided, procedure rooms may be in a separate suite or may be part of the surgical suite. Special procedure rooms may be incorporated in an outpatient suite. When special procedure rooms are part of the surgical suite and noninvasive procedures are performed, these rooms are not required to be part of the sterile environment. Nonsurgical or noninvasive procedure rooms shall have a minimum clear floor area of 250 square feet, and a minimum clear dimension between fixed cabinets and built-in shelves shall be 14 feet. (New)
Review of the New Hospital Spatial Requirements

- Special procedure suite (Cont.)
  - When general anesthesia or inhalation anesthetizing agents are used during special procedures, these rooms shall comply with the detail, finish, mechanical and electrical requirements for an operating room contained in subsection (ee) of this section.
  - Special procedure rooms for surgical cystoscopic and other endourologic procedures. The procedure room shall have a minimum clear floor area of 350 square feet exclusive of fixed cabinets and shelves. The minimum clear dimension between fixed cabinets and built-in shelves shall be 15 feet.

Review of the New Hospital Spatial Requirements

- Catheterization laboratory - §133.163(dd)
  - A catheterization procedure room may be in a separate suite, part of a special procedure suite, surgical suite, or in the imaging suite.
  - The room(s) shall be located in an area restricted to authorized personnel.
  - The procedure room shall be a minimum of 400 square feet of clear floor area exclusive of fixed and movable cabinets and shelves. The minimum clear dimension between fixed cabinets and built-in shelves shall be 18 feet.

Review of the New Hospital Spatial Requirements

- Catheterization laboratory (Cont.)
  - Appropriate sized areas shall be provided for male and female changing rooms within the catheterization laboratory suite. These areas shall contain lockers, showers, toilets, hand washing fixtures with hands-free operable controls, and space to change into scrub suits and boots. Separate locker/changing rooms shall be provided for male and female staff. The shower and toilet room(s) may be unisex. These areas shall be arranged to provide a traffic pattern so that personnel entering from outside the catheterization laboratory can shower, change, and move into the restricted portions of catheterization laboratory. (New)
Review of the New Hospital Spatial Requirements

- Surgical suite - §133.163(ee)
  - General operating room(s). A minimum of one operating room shall be provided and shall have a minimum clear floor area of 400 square feet exclusive of fixed and movable cabinets and shelves. The minimum clear dimension between fixed cabinets and built-in shelves shall be 20 feet. There shall be no direct access between operating rooms.
  - Operating rooms for cardiovascular, orthopedic, neurological, and other special surgical procedures that require additional personnel and large equipment.
    - When provided, these rooms shall have a minimum clear floor area of 600 square feet, with a minimum of 20 feet clear dimension exclusive of fixed or wall-mounted cabinets and built-in shelves.

- Surgical suite (Cont.)
  - Scrub facilities. Two scrub stations shall be located in the restricted corridor within five feet of the entrance of each operating room. Two scrub stations may serve two operating rooms if the scrub stations are located adjacent to the entrance of both operating rooms. Scrub facilities shall be arranged to minimize any incidental splatter on nearby personnel, medical equipment, or supply carts. Viewing panels shall be provided for observation of the surgical room interior. The scrub sinks shall be recessed out of the main traffic areas. The alcove shall be located within the restricted areas of the surgical suite. Scrub sinks shall not be located inside the sterile area.

- Preoperative patient holding area(s) or room(s). §133.163(ee)(1)(E)
  - In facilities with two or more operating rooms, a patient holding area or rooms shall be provided. The preoperative patient holding area may be used for secondary recovery. The area shall meet the following requirements. (New)
  - The minimum clear floor space in a private preoperative holding room shall be 100 square feet exclusive of aisles and fixed and moveable cabinets and shelves. (New)
  - One hand washing fixture with hands-free operable controls shall be provided for every four preoperative holding beds or fraction thereof. Fixtures shall be uniformly distributed. One hand washing fixture with hands-free operable controls shall be provided within each single-bed preoperative holding room. (New)
Post-anesthesia care units - §133.163(ee)(1)(E)
- A minimum of one and a half patient stations per operating room shall be provided for post-anesthesia care or fraction thereof. A minimum of two stations shall be provided when there is only one operating room. (New)
- The minimum clear floor space in a private recovery room shall be 130 square feet exclusive of aisles and fixed and moveable cabinets and selves. A minimum of 10 feet width shall be provided for the head wall. The room shall contain cabinets, work counter, and hand washing fixture with hands-free operable controls. The fixed and movable cabinets and shelves shall not encroach upon the bed/gurney clear floor space/area. (New)
- At least one door to the PACU room shall be within the surgical suite.

Post-anesthesia care units (Cont.)
- Provisions shall be made for separating all patients subject to general anesthesia from those who did not receive general anesthesia. This requirement may be satisfied by providing separate recovery rooms, cubicles, secondary recovery rooms or scheduling of procedures.

Surgical suite staff change rooms – §133.163(ee)(1)(E)
- Appropriately sized areas shall be provided for male and female personnel working within the surgical suite. These areas shall contain lockers, showers, toilets, hand washing fixtures with hands-free operable controls, and space to change into scrub suits and boots. Separate locker/changing rooms shall be provided for male and female staff. The shower and toilet room(s) may be unisex. These areas shall be arranged to provide a traffic pattern so that personnel entering from outside the surgical suite can shower, change, and move directly into the restricted areas of the surgical suite. (New)

Lounge - §133.163(ee)(1)(E)
- A lounge shall be provided in hospitals with three or more operating rooms. The lounge shall permit staff use without leaving the surgical suite and may be accessed from the clothing changing rooms. The lounge shall not have direct access from outside the surgical suite. When the lounge is remote from the clothing change rooms, toilet facilities and a hand washing fixture with hands-free operable controls accessible from the lounge shall be provided. (New)
- Smoke removal systems shall be provided in accordance with §133.162(d)(3)(D)(iv)(II) of this title.
Review of the New Hospital Spatial Requirements

Surgical (Cont.)

- Each operating room, PACU, and recovery room shall be provided with conveniently mounted temperature and humidity indicating devices.
- Drainage and waste piping shall not be installed above or below ceilings in operating rooms, and sterile processing rooms unless precautions are taken to protect the space below from leakage and condensation from necessary overhead piping. Any required secondary protection shall be labeled, "code required secondary drain system" every 20 feet in a highly visible print or label. (New)

Review of the New Hospital Spatial Requirements

Universal care suite - §133.163(ff) (New)

- When a universal care suite is provided, the universal care suite shall be a separate suite(s) operated separately from other suites in the hospital.
- All universal care suite patient rooms shall be single patient rooms and have a minimum clear floor area of 200 square feet per bed exclusive of anterooms, vestibules, toilet rooms, closets, lockers, wardrobes, and/or alcoves. A minimum of 13 feet width shall be provided for the head wall.

Universal care suite (Cont.)

- The nurse station shall be located to permit direct visual observation of each patient served. Video cameras or mirrors shall not be substituted for direct visual observation. The nurse station shall have space for counters and storage. The counter height shall not exceed 42 inches. The nurse station may be combined with or include centers for reception and communication.
- When individual nurse substations are provided and located at each patient room(s), they shall be located to permit direct visual observation of each patient served. The nurse substation shall have space for counter, storage space and a recessed sitting space. The substation shall be at a minimum recessed from the egress corridor one foot six inches.
Review of the New Hospital Elevators

- Elevators - §133.164 (reorganized)
  - Elevator lobby. An elevator lobby shall be provided. The elevator lobby shall have at least 10 feet of clear floor space in front of each elevator door.
  - Elevator shaft openings. When elevator shaft openings occur in a smoke compartment with patient sleeping rooms or occur in a smoke compartment adjacent to the patient sleeping rooms, the elevator shaft openings shall resist the passage of smoke by one of the following means. (New)
    - Provide a lobby with separation partitions to resist the passage of smoke from the means of egress. When elevator lobby space extends into the egress corridor, the means of egress from one side of the egress corridor through the lobby to the other side of the egress corridor is not permitted during emergency conditions.

- Elevators (cont.)
  - Provide a mechanical means of exhausting smoke from the elevator shaft. The smoke removal exhaust system for the elevator shaft shall operate automatically upon the initiation of the activation of the smoke detectors located in each elevator lobby, which also initiates automatic recall of the elevator cabs to the designated level of discharge. The activation of the smoke exhaust system shall provide a negative pressure at each level.
  - Provide swinging doors that are held open by magnetic hold open devices and close the doors at the elevator door opening upon activation of the fire alarm system.
  - Provide a horizontal automated moving door like a “Won-Door” two feet or more from the elevator door opening that will close automatically by the activation of the fire alarm system and have emergency capabilities of opening and closing.

- Elevators (cont.)
  - The elevator shaft opening protection shall not be required at the elevator main level of recall.
  - Cars and doors.
    - Cars of hospital type elevators for patient transport shall not be less than five feet eight inches wide and not less than eight feet six inches deep inside the cab. (New)
    - The car door opening shall be not less than four feet wide and seven feet high.
  - Type of controls and alarms.
    - Elevator cab lighting, control, communication and signal systems shall be connected in accordance with NFPA 99, §4.4.2.2.2
Review of the New Hospital
Multiple Hospital Locations

- Buildings with Multiple Occupancies - §133.165
  - Multiple hospitals located within one building - §133.165(a)
    - (A) The guest hospital shall be in one separately contiguous location.
    - (B) In no case may a person leave the guest hospital, traverse the host hospital, and then reenter the guest hospital to access the remaining portion of the guest hospital.
    - (C) A connecting stair within the host hospital may be used to connect the vertical contiguous areas of the guest hospital.
    - (D) A guest hospital may not occupy two or more noncontiguous areas of a host hospital which contain intervening space of the host hospital even if on the same floor.
    - (E) Construction of the host hospital building shall conform to the requirements of NFPA 101, Chapter 18, and the building shall be fully sprinklered.

Review of the New Hospital
Multiple hospital locations

- Separate facilities. Each hospital shall provide the following separate facilities:
  - Each hospital shall provide emergency facilities as required by §133.163(f)(1)(A) of this title. When general hospitals share a building, each general hospital shall provide emergency facilities as required by §133.163(f)(1)(A)(i) and (ii) of this title; (New)
  - imaging and other diagnostic services and facilities, in accordance with §133.41(s) of this title (relating to Hospital Functions and Services) and §133.163(l) of this title respectively;
  - laboratory services and a laboratory suite which comply with §133.41(h) of this title, and §133.163(n)(1)(B) of this title respectively;
  - dietary services and dietary suite, including staff dining facilities, which comply with §133.41(d) of this title and §133.163(e) of this title respectively. (New)

Review of the New Hospital
Multiple hospital locations

- Building systems and equipment. The following systems shall be provided separately in each hospital at a 24-hour staffed location.
  - Nurses calling systems shall be provided separately in each hospital.
  - Medical gas alarms shall be provided in each hospital.
  - Fire alarm annunciator panels shall be provided in each hospital so that each hospital can monitor the other.
  - An emergency generator annunciator panel shall be provided in each hospital.
Review of the New Hospital
Multiple hospital locations

- Where applicable, the following systems may serve more than one hospital provided the systems meet the new construction requirements of §133.162 of this title:
  - air conditioning, heating and ventilating systems
  - drainage systems
  - elevators
  - fire sprinkler systems. The guest hospital may not be constructed in a host hospital when the host hospital is not fully sprinklered. The host and guest hospitals shall be fully sprinklered:
  - medical piping systems;
  - stand pipe systems;
  - steam systems;
  - water supply systems, hot and cold (including emergency water storage); and
  - Electrical service and equipment.
    - Where applicable, the building electrical service, lighting, essential electrical system, and fire alarm system, may be a part of or extension of those in the existing hospital, provided the existing systems meet these requirements. The host hospital shall be responsible for maintenance, testing and upkeep of the essential electrical system. Power and lighting distribution panels shall be within each hospital served and comply with the requirements of §133.162(d)(5)(E). Electrical installation details shall conform with all requirements contained in §133.162(d)(5)(A). When the existing essential electrical system is nonconforming, the following options are available:
      - a separate conforming essential electrical system shall be provided in the guest hospital; or
      - separate transfer switches connected to the existing on-site generator(s) shall be provided when adequate capacity is available and the host hospital existing nonconforming system shall be corrected. Corrections shall be made in accordance with a plan of correction approved by the department.

- Hospitals located in buildings with licensed health care facilities other than hospitals. §133.165(b).
  - Very similar to hospitals within hospitals
  - The hospital shall be in one separately contiguous location.
  - The hospital shall be responsible for maintenance, testing and upkeep of the All systems.

- Hospitals in buildings with non-health care occupancies. §133.165(c)
  - Very similar to hospitals within hospitals
  - The hospital shall be in one separately contiguous location.
  - The hospital shall be responsible for maintenance, testing and upkeep of the All systems.
Mobile, Transportable, and Relocatable Units - §133.166.

- General. When mobile, transportable and relocatable units are utilized to provide patient treatment services on the hospital premises, these units shall be treated as buildings and constructed to the required occupancy as follows.

- When a mobile, transportable, or relocatable unit is not physically attached to the hospital and provides inpatient services, a covered walkway or enclosure from the hospital to the unit shall be provided to ensure patient safety from the outside elements. **(New)**

When a mobile, transportable, or relocatable unit is permanently connected appropriately for the climate to the hospital or the unit does not move on a regular basis, i.e. every 90 days or less, the units shall be provided with the following equipment and systems **connected to the hospital**: **(New)**

- fire alarm system;
- sprinkler system;
- electrical system and the essential electrical system;
- water and waste water system;
- medical gas systems; and
- nurses calling systems.

Hospital Licensing Rules
Title 25 TAC - Chapter 133