Major Additions and Revisions

For the 2014 edition, the document previously known as the *Guidelines for Design and Construction of Health Care Facilities* has been divided into two standards—one for hospitals and outpatient facilities and one for facilities in which residents or clients receive long-term care or support. This is the greatest change resulting from the Facility Guidelines Institute's 2014 revision cycle.

In addition, a number of updates and additions have been made to the new 2014 FGI *Guidelines for Design and Construction of Hospitals and Outpatient Facilities*. As in past editions, significant changes are marked throughout the document with a vertical line beside the text. The glossary of terms defined as they are used in the *Guidelines* has been revised.

Part 1: General

The background material formerly contained in Chapter 1.1, such as information about application of the document and requesting an interpretation, has been moved into the front of the book, outside the content of the standard, as it did not contain required standards. This change, part of an effort to remove unenforceable language from the body of the text, will help national and state organizations adopt Part 1 of the 2014 edition. The change was motivated by an International Code Council review of sections of the *Guidelines* for potential adoption into the 2015 I-Codes.

New vs. Renovation. Noteworthy changes have been made to improve the application of the *Guidelines* to existing facilities. Only the altered, renovated, or modernized portions of an existing building system—or an individual component that has been altered, renovated, or replaced—are required to meet the installation and equipment requirements in the *Guidelines*. A list of exceptions has been added to help clarify when existing systems or building equipment must be updated.

Functional Program. The Health Guidelines Revision Committee was challenged by the American Institute of Architects Academy of Architecture for Health and the American Society for Healthcare Engineering to consider whether the functional program is a minimum requirement or should be removed from the document or moved to the appendix. Under the leadership of Ken Cates, CHC, of Northstar Management, a task group thoroughly reviewed the longstanding requirement for a functional program and recommended it be retained. FGI and HGRC leaders agreed that the functional program is a critical aspect of planning and designing health care and residential facilities and mandated its inclusion in the 2014 *Guidelines* documents. However, the functional program requirements were streamlined by moving substantial material into the appendix, adding a requirement for an executive summary of key elements, separating the environment of care considerations from the functional program requirement, and eliminating more than 400 references to the functional program in the body of the *Guidelines for Hospitals and Outpatient Facilities*.

Safety Risk Assessment. Of all the changes in the 2014 *Guidelines*, the most overarching is the development of the safety risk assessment (SRA). Under the leadership of Ellen Taylor, AIA, MBA, EDAC, of the Center for Health Design, a task group created the SRA, which is a multidisciplinary, documented assessment process intended to proactively identify and mitigate hazards and risks in the health care built environment that could directly or indirectly contribute to harm to patients, staff, or visitors. These hazards and risks include infections, falls, medication errors, immobility-related health outcomes, security breaches, and musculosekeletal injuries. The SRA incorporates the infection control and patient handling and movement assessments found in Chapter 1.2 of the 2010 FGI *Guidelines*. This owner-driven assessment process fosters a proactive approach to patient and caregiver safety by incorporating consideration of a range of high-priority activities into the planning, design, and construction phases of a health care facility project. As health care reform and consequent reimbursement practices have led to a shift from a volume-based services model to one based on quality, performance-based outcomes,

the health care industry has focused more than ever on patient safety outcomes. The developers of the *Guidelines* have taken a proactive approach to safety outcomes rather than leaving owners to address elements in the built environment that contribute to adverse safety events through expensive retrofit projects.

Bariatric-Specific Design Considerations. Another challenge HGRC members faced was how to provide minimum standards to help health care facilities accommodate the approximately two-thirds of all Americans who are either overweight or morbidly obese in light of the significant geographic variation in population weight from state to state. After much debate, the committee decided to make determination of the percentage of the population served expected to be obese part of the planning for a health care facility project. This information is to be used as the basis for design requirements for paths of egress and fixtures, furniture, and equipment to assure a facility has sufficient patient lifts, large enough beds and chairs, and wide enough doorways and exit pathways to accommodate those who come through its doors for treatment. FGI plans to undertake research to support development of minimum requirements for accommodating patients of all weights for the 2018 edition of the FGI *Guidelines*.

Commissioning. Under the leadership of John Dombrowski, PE, HFDP, CPMP, of the H. F. Lenz Company, a task group used the recently published ASHE *Health Facility Commissioning Guidelines* to update the *Guidelines* section on commissioning in Chapter 1.2. Added for 2014 are requirements for developing the owner's project requirements, preparing a commissioning plan, and developing commissioning specifications and construction checklists. The types of systems to be commissioned now include domestic hot water, fire alarm and fire protection, and essential electrical power systems and automatic temperature controls.

Part 2: Hospitals

New and significantly revised language in Chapter 2.1, Common Elements for Hospitals, includes:

- Appendix language for staff rest areas
- A completely revised section on food and nutrition facilities
- Appendix language on design elements to enhance opportunities for patient ambulation and mobility
- Expanded appendix material on the characteristics and criteria for selecting surface materials
- Patient night-lighting recommendations
- A requirement to place components of electronic health records systems on an uninterruptible power supply
- Cooling for technology equipment rooms must be on emergency power
- Elevator cab size clear dimensions of 5 feet 8 inches wide by 9 feet deep

New and significantly revised language in Chapter 2.2, Specific Requirements for General Hospitals, includes:

- New children's hospital chapter addressing the special needs of general acute pediatric care
- New critical access hospital chapter addressing the needs of these small facilities
- New language on family zone support features
- Clarification of requirements for the critical care patient toilet or human waste disposal room
- A requirement for built-in mechanical lifts in all newly constructed bariatric nursing unit rooms (10 percent of the rooms in renovation projects)
- Updated content on freestanding emergency facilities
- Broadened requirements for observation units, allowing location outside the emergency department
- New requirements and appendix language for hybrid operating rooms
- Revisions and additions to the imaging services section (e.g., MRI, gamma camera, PET, proton therapy)

Part 2: Hospitals *and* Part 3: Outpatient Facilities

New and significantly revised language that affects both hospitals and outpatient facilities includes:

- Guidance on locating hand-washing stations serving multiple patient care stations
- Appendix language on placement of emergency equipment in egress corridors
- Clarification that room size for a single-bed exam room must accommodate placement of the exam station at a 45-degree angle although, in practice, placement against the wall is permitted
- Unsealed (open) water features are no longer

permitted inside a hospital or in a licensed outpatient health care occupancy area
- The surgical suite has two designated areas: semi-restricted and restricted
- Location of scrub stations in surgical suites next to the entrance to the operating room required, but two scrub positions at one station can serve two operating rooms as long as the station is next to the entrance of each
- No requirement for a substerile room between every two operating rooms
- Revised facility requirements for sterilization processes conducted in the surgical suite
- A minimum of 1.5 PACU stations per operating room
- Pre- and post-op space and clearance requirements modified for consistency
- No requirement for a door to a staff changing area or lounge to open directly into the semi-restricted area of the surgical suite. The new requirement states only that a staff changing area and lounge must be provided, which allows these functions to be shared with another department.
- New provisions for electroconvulsive therapy (ECT) facilities
- Revised endoscopy instrument processing room requirements
- Corridor widths per applicable building codes

Another significant new change in the 2014 *Guidelines* is the addition of medication safety zone requirements. Eileen Malone, RN, MSN, MS, EDAC, of Mercury Healthcare Consulting worked with the Focus Group on Hospital Nursing Units to incorporate this essential new aspect of patient care, based on standards from the U.S. Pharmacopeial Convention's National Formulary. The 2014 edition provides a framework for a medication safety risk assessment performed during project planning and minimum design requirements (with supporting appendix language) to guide design and construction of medication safety zones across the continuum of care. The goal of these new requirements is to support safe medication use systems and reduce medication errors.

Part 3: Outpatient Facilities

By far the most significant change in outpatient facility requirements is the revision to requirements for operating rooms and support areas in surgical facilities. This effort was undertaken by a small group led by Byron Burlingame, MS, RN, CNOR, of the Association of periOperative Registered Nurses. New definitions have been provided in the glossary for invasive procedures, procedure room, and the two areas that make up the surgical suite—semi-restricted and restricted areas. These definitions are the foundation for the changes in the body of the document, especially the distinction between an operating room and a procedure room in the ambulatory surgery setting. The decision was made to move away from the outdated Class A–C levels based on anesthesia use. Instead, a one-size minimum requirement was developed for an outpatient operating room (formerly the Class B and Class C rooms). The minimum size for an ambulatory OR was calculated to be 250 square feet, and recommendations for ORs that may need to be larger are included in the appendix. The former Class A operating room is now termed a procedure room, which is a room designated for the performance of procedures that are not defined as invasive and may be performed outside the restricted area of a surgical suite but may require use of sterile instruments or supplies.

Other notable changes in Part 3 include:

- Revised chapter on primary care centers
- Modified cancer treatment area size and configuration requirements
- Chapter 3.8 has been changed to focus on office-based procedure and operating rooms
- New chapter on dental facilities

Part 4: ANSI/ASHRAE/ASHE 170: *Ventilation of Health Care Facilities*

FGI continues to work with ASHRAE and ASHE to revise and update this standard. ASHRAE 170 is under a continuous maintenance process, which permits official changes to be made over the life cycle of the document. The 2013 edition of ASHRAE 170, with all addenda approved through November 2013, has been incorporated as Part 4 of this edition of the FGI *Guidelines*.

White Papers Associated with the 2014 Edition

White papers have been developed to provide additional information that supports language in the 2014 *Guidelines for Design and Construction of Hospitals and Outpatient Facilities*.

Still referenced is *Patient Handling and Movement Assessments: A White Paper*. This paper was developed when the PHAMA (patient handling and movement assessment) was introduced in the 2010 edition of the *Guidelines*.

Developed for the 2014 edition is *Sustainable Design Guidelines for Hospitals and Outpatient Facilities*, a white paper with baseline requirements for building site; energy use; indoor environmental quality; water supply; airborne emissions, effluent, and pollutant controls; materials and resources, and waste as well as additional performance or prescriptive requirements for some categories. The white paper is intended as a first step to incorporating more specific sustainable design requirements into a future edition of the *Guidelines*.

The Acoustical Working Group has updated *Sound & Vibration: Design Guidelines for Health Care Facilities*, the first version of which was issued to accompany the 2010 edition of the FGI *Guidelines*.

The white papers can be found on the FGI website at www.fgiguidelines.org/resources.