

Standard EC.02.05.01

The hospital manages risks associated with its utility systems.

Elements of Performance for EC.02.05.01

1. The hospital designs and installs utility systems that meet patient care and operational needs. (See *also* EC.02.06.05, EP 1)
2. The hospital maintains a written inventory of all operating components of utility systems or maintains a written inventory of selected operating components of utility systems based on risks for infection, occupant needs, and systems critical to patient care (including all life-support systems). The hospital evaluates new types of utility components before initial use to determine whether they should be included in the inventory. (See *also* EC.02.05.05, EPs 1, 3-5)
3. The hospital identifies, in writing, inspection and maintenance activities for all operating components of utility systems on the inventory. (See *also* EC.02.05.05, EPs 3-5; EC.02.05.09, EP 1)

Note 1: *Hospitals may use different approaches to maintenance. For example, activities such as predictive maintenance, reliability-centered maintenance, interval-based maintenance, corrective maintenance, or metered maintenance may be selected to ensure dependable performance.*

Note 2: *For guidance on maintenance and testing activities for Essential Electric Systems (Type I), see NFPA 99, 1999 edition (Section 3-4.4).*

4. The hospital identifies, in writing, the intervals for inspecting, testing, and maintaining all operating components of the utility systems on the inventory, based on criteria such as manufacturers' recommendations, risk levels, or hospital experience. (See *also* EC.02.05.05, EPs 3-5)
5. The hospital minimizes pathogenic biological agents in cooling towers, domestic hot- and cold-water systems, and other aerosolizing water systems.
6. In areas designed to control airborne contaminants (such as biological agents, gases, fumes, dust), the ventilation system provides appropriate pressure relationships, air-exchange rates, and filtration efficiencies.

Note: *Areas designed for control of airborne contaminants include spaces such as operating rooms, special procedure rooms, delivery rooms for patients diagnosed with or suspected of having airborne communicable diseases (for example, pulmonary or laryngeal tuberculosis), patients in "protective environment" rooms (for example, those receiving bone marrow transplants), laboratories, pharmacies, and sterile supply rooms. For further information, see *Guidelines for Design and Construction of Health Care Facilities*, 2010 edition, administered by the Facility Guidelines Institute and published by the American Society for Healthcare Engineering (ASHE).*

7. The hospital maps the distribution of its utility systems.

8. The hospital labels utility system controls to facilitate partial or complete emergency shutdowns.
9. The hospital has written procedures for responding to utility system disruptions.
10. The hospital's procedures address shutting off the malfunctioning system and notifying staff in affected areas.
11. The hospital's procedures address performing emergency clinical interventions during utility system disruptions.
12. The hospital's procedures address how to obtain emergency repair services.
13. The hospital responds to utility system disruptions as described in its procedures.