



**Planning Electrical Shutdowns: Points to Ponder** (Continued from page 1)

- for power outages.
- ✦ Review old Y2K contingency plans for long-term power outages. Remember how much was realized for the first time in 1999.
- ✦ Review construction/renovation project cost reduction and value engineering decisions relating to the shutdown areas.
- ✦ Consider the effects of the shutdown on every other hospital utility system.
- ✦ Consider areas such as cooling, steam condensate return pumps, hot water circulating pumps, radiology procedure rooms, patient bathroom lighting, etc.
- ✦ Consider maintenance required before, during and after the shutdown.
- ✦ Consider infrastructure upgrades required before, during and after the shutdown.
- ✦ Differentiate requests for new emergency lighting and power between “must have” and “would like to have.”
- ✦ Make sure you really know your emergency power system demand loading. Create worst case daily load profiles by monitoring your transfer switches.
- ✦ Limit emergency power load growth due to shutdown-related changes.
- ✦ Brainstorm about what can go wrong during the shutdown and ensure that there are contingency plans with staff training to cover each possibility.
- ✦ Create detailed procedures – lists of things to remember, things to do, work quality checks, technical tasks, administrative tasks, worker safety issues, unusual situations.



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- ✦ List all tools used and make sure they are all accounted for after the work. Make sure nothing is forgotten inside of the equipment where it can create a disaster later.
- ✦ Consider installing backup feeders to give your team additional flexibility.

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(David has personally managed numerous hospital electrical shutdowns. Also refer to David's article, "Powering Down," in the June 2004 issue of HFM Magazine.)

**NATIONAL CAMPAIGN TO PREVENT INFECTIONS**

Combined efforts on behalf of JCAHO, AHA, APIC, CDC, IDSA and SHEA have launched a national campaign to limit the spread of infections during the anticipated flu season and the national shortage of a flu vaccine. All Americans are strongly urged to follow the subsequent steps to reduce the likelihood of becoming ill:

1. **Clean your hands** vigorously with soap and water for at least 15 seconds after using the bathroom, taking out the trash, changing a diaper and before handling food.
2. **Cover your mouth** and nose with a tissue, your hands or the crook of your elbow when sneezing or coughing. Then remember to wash your hands.
3. **Avoid close contact** if you are experiencing a fever or symptoms of a contagious illness. Stay at home, away from other people. If you are sick and go to work or school, you place others at risk for getting sick as well.

**SSR PUBLICATIONS & SEMINARS**

*Upcoming Seminars*

- Nov. 9 Midwest Healthcare Engineering Conference, Indianapolis, "Overcoming Infection Control Challenges in Construction"
- Jan. 14 Arkansas Association for Healthcare Engineering, Little Rock, "Life Safety Code for Healthcare Occupancies"
- Mar. 7 ASHE PDC Conference, Nashville, "Overcoming Infection Control Challenges During Healthcare Construction"

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*Compliance News*



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A Newsletter for Healthcare Executives and Facility Managers on Issues Related to Accreditation and Regulatory Compliance

**COMMISSIONING - WHAT IS IT AND WHY DO I NEED IT?**

Commissioning (Cx) is a systematic process of quality control and quality assurance that ensures all building systems perform interactively according to the contract documents, the owner's objectives and the defined operational needs. In essence it's a method of risk reduction for new construction and with 60% of insurance claims related to HVAC systems, commissioning can reduce exposure to claims and risk in renovation and existing projects.

Commissioning is one of the only, and perhaps the only, process that yields a predictability of outcome for a construction project. Employing Cx during the design phase will identify and solve performance related issues prior to and during construction, before you become responsible for maintaining that system as part of your operation and maintenance budget.

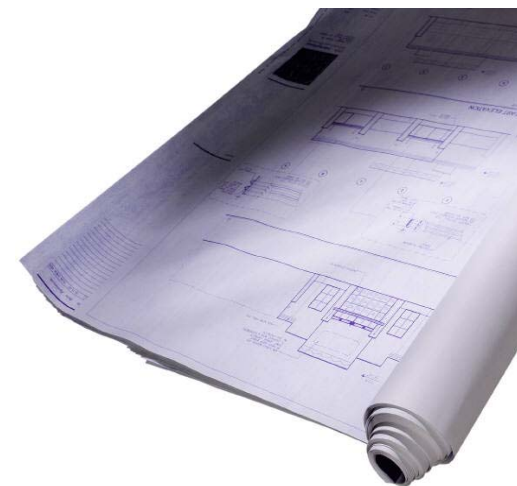
In test studies where 130 buildings were commissioned after construction, the average utility and related operating cost savings was 20%. The study results also provide firm data that shows without commissioning, your new project is not guaranteed to be operating optimally.

Whether you are involved in new construction or a renovation project, commissioning will enhance the communication among the (Continued on Page 3)

**PLANNING ELECTRICAL SHUTDOWNS: POINTS TO PONDER**

Shutdown managers in industrial settings know that failing to plan is planning to fail. Your hospital's shutdown task force should consider the following points:

- ✦ Review lessons learned from previous power outages. Update them for ongoing changes.
- ✦ Review and update the main electrical one-line diagram.
- ✦ Review and update the utility management plan.
- ✦ Review and update the emergency management plan (Continued on Page 4)



*The best results are obtained when Cx begins during the design phase and continues through the warranty phase.*

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## JCAHO FOCUSES ON PLAN EVALUATIONS



*Build a bridge between what the standards require and the operations of your specific facility.*



Producing an annual evaluation for each of the seven Environment of Care (EC) Management Plans is a critical survey requirement of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Failure to complete this annual process may result in a devastating negative outcome for the entire survey process.

Efforts should be given to avoid the three most common pitfalls identified by JCAHO surveyors, which are:

1. Don't just echo back the Elements of Performance (EP) as written in the JCAHO standards. Instead, build a bridge between what the standards require and the operations of your specific facility. Provide a high level overview on how your organization will carry out each EP requirement, but save the details for documents such as policies and procedures.
2. You must address the unique needs of each different setting that is included in the JCAHO accreditation process. For instance, fire safety goals in the hospital will be different than in an ambulatory care center or in a business occupancy building. The Hazard Vulnerability Analysis will need to be specific to each setting, and the complexity of the Emergency Management Plan will be different depending on what setting it pertains to.
3. Each of the seven EC Management Plans must articulate how that particular plan will be evaluated. It should assign responsibility to a particular person, state when the evaluation will occur, name the sources of information that will

guide the evaluation and also identify the path through which the evaluation will be processed.

The four (4) criteria that surveyors will expect to find in each of the EC Management Plan evaluations are:

1. **Plan Objectives**
  - a. Evaluate if the previously stated objectives are still applicable, and whether or not you believe they still represent the most important EC concerns facing your organization.
  - b. Objectives that are stated in general terms often may be carried forward into the next plan where more specific goals will need to be revised as the environment changes.
2. **Plan Scope**
  - a. This identifies the breadth of the plan. Does it encompass one building or several buildings within one organization?
  - b. Hours of operation, equipment, services offered or even processes covered may be included in the individual plan.
  - c. The annual evaluation should address whether or not the definition of the scope has changed because the organizational structure has changed or does the scope remain appropriate?

*Note: When you have a situation where some or all of the evaluation criteria within the Plan Objective or Plan Scope have not changed, it is strongly recommended that you deliberately identify in your written evaluation that "the criteria have been evaluated and there are no changes."*
3. **Plan Performance**
  - a. This section includes performance (Continued on Page 3)



### Commissioning - What Is It and Why Do I Need It? (Continued from page 1)

project team members to ensure that everyone understands the goals of the project. This critical piece allows the project team to identify problems early, before they create costly delays. Additional benefits to anticipate from Cx include improved building performance; reduced construction, energy and maintenance costs; fewer RFIs and change orders; preservation of contingency monies; fewer occupancy complaints; increased operation and maintenance knowledge; better indoor air quality and improved documentation.

Although commissioning services can be obtained during any phase of the construction project, the best results are obtained when Cx begins during the design phase and continues through the warranty phase of a newly constructed building. Commissioning includes review of all building systems such as mechanical, electrical, plumbing, lighting, security, fire protection, telecommunication, low voltage, life safety, elevators, roof, structural, building envelope, nurse call system, paging, code blue alert systems and medical communications.

*Retrocommissioning* employs many of the same aspects as Cx, and it involves reviewing existing buildings that have never been commissioned. This process involves a systematic investigation process for improving and optimizing the operations and management systems of a building. Retrocommissioning usually focuses on energy-using equipment with the goal of reducing energy waste, obtaining energy and operating cost savings for the owner identifying and repairing existing problems.

Commissioning older buildings and new projects pays back between \$3 and \$11 for each dollar invested and the simple payback time is less than two years. With a

20% utility cost reduction, as mentioned heretofore, how do you know if your existing buildings and new buildings are operating at maximum efficiency with the lowest utility cost? A Cx agent is the only entity that provides a report certifying such performance. Additionally, utilizing the commissioning process to make a building or a campus more efficient yields a bi-product of giving longer life to central energy plants by mitigating the addition of expensive capacity due to inefficient buildings.

In conclusion, through verifying and documenting that the building and its systems have been designed and installed in a quality manner, Cx can facilitate meeting the needs and welfare of the owners, the building occupants and the building operators. The commissioning agent tests and documents all testing sequences, relationships and dependencies among systems. This documentation provides confirmation that the building fulfills the functional and performance requirements as previously established in the contract documents.

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### JCAHO Focuses on Plan Evaluations (Continued from page 2)

improvement (PI) data that you have collected while monitoring each of the particular plans. As an organization you determine how well you did on any PI project, and how the project affected the delivery of care.

- b. You need to evaluate if those processes being monitored are the processes that need the most attention, and determine how you can revise indicators to obtain more significant outcomes with the next year's plan.

4. **Plan Effectiveness**
  - a. This is a subjective evaluation on what went well, what you accomplished, what needs to be improved and what issues are on the horizon.
  - b. The strengths and weaknesses identified by the organization are utilized to set the goals and objectives for the coming year.

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