

GE Healthcare

Scheduling MRI procedures without fear of power interruption

Uninterruptible Power Supply increases
uptime at Austin Surgical Hospital



Austin Surgical Hospital
Austin, TX



Austin Surgical Hospital is a unique 23-bed facility that specializes in inpatient surgery and outpatient procedures. It is affiliated with Hospital Partners of America and has JCAHO Accreditation and Medicare Certification.



Luther Burnham, C.P.E.
Chief Engineer

Strongly committed to innovation, individualized care and clinical quality, Austin Surgical Hospital's physical layout, management, staffing and hospital operations have been designed to reduce stress and foster a sense of well-being in order to aid patient recovery.

Services offered by the hospital range from surgery to physical therapy to pain management. A high percentage of the procedures involve orthopedic and plastic surgeries. Other amenities include six operating rooms, a computer-guided surgical navigation system, and an on-site, state-of-the-art imaging department that includes CT, MRI and X-ray systems.

Luther Burnham, C.P.E., is chief engineer at Austin Surgical Hospital. In addition to facility management, Burnham works with the Imaging Department to ensure that all imaging systems function at high levels to maintain diagnostic quality. In mid-2005, the hospital integrated an Uninterruptible Power Supply (UPS) from GE Healthcare to its MRI system to protect it from power outages.

Power fluctuations likely contributed to MRI system crash

Austin Surgical Hospital experienced a power problem immediately after its MRI was installed. Burnham believes that power fluctuations contributed to total system failure. "After the 'crash,' the entire MRI had to be replaced. We were out of the MRI business for almost six months," says Burnham.

Luckily, the MRI procedure schedule was not overwhelming. "If a crash was going to happen, it was a good thing it happened at that time," says Burnham. He adds that the downtime from a system crash today would cause large losses in revenue due to procedure volume loss and staffing expenses.

"During peak demand periods, we occasionally would lose power from our utility provider. We knew we could not prevent these service interruptions, so we opted to protect our equipment with GE's SG 225kVA UPS."

It has been invaluable knowing we can schedule procedures to meet the needs of our patients, physicians and staff without fear of interruption because of power losses. – Luther Burnham

The GE Digital Energy™ SG 225kVA UPS was designed to provide reliable three-phase power for protection of medical imaging systems. It features an internal Harmonic Input Filter, which reduces reflected input harmonic distortion to maintain image quality during power disturbances and fluctuations. The flexibility and power of the UPS will enable the facility to connect its CT imaging system in the near future.

Maximized uptime

As the costs for diagnostic imaging equipment rise, so does the need for continued, uninterrupted uptime. Providing clean power to maintain high-quality patient care is critical for diagnostic imaging systems. Fluctuations can damage patient data, impact diagnoses and negatively affect patient satisfaction.

In the two years since the UPS was installed, the hospital has not had any downtime or equipment failures due to power outages or fluctuations in incoming power. When selecting the UPS, the engineering staff had high demands for its reliability. "Our expectation was that when we experienced power outages coinciding with scheduled procedures, we would reap the rewards of having a UPS as part of the system."

During 2006, the facility experienced two complete, unscheduled power outages and 12 generator load tests. The UPS performed seamlessly and maintained power to the MRI during patient procedures during the facility-wide interruptions. In addition, Austin Surgical Hospital was in line for potential brownouts scheduled by the utility company.

"It has been invaluable knowing we can schedule procedures to meet the needs of our patients, physicians and staff without fear of interruption because of power losses," says Burnham. He adds that the Austin area can expect at least two outages every summer due to the extreme weather conditions and high demands on the utility provider.

GE service

When considering the purchase of a UPS from GE Healthcare, the abilities of the service technicians and the service agreement played a big part in the decision. "The technical abilities, work ethic and people skills demonstrated by the service technicians were important to us. We also consider a service contract as part of our risk-management practices. Evaluations were made of potential risk in the event of a failure requiring equipment repair and/or replacement."

Good addition

Burnham says that the UPS has been a good addition from operational and financial perspectives. "Now, we don't worry that an imaging procedure will be interrupted because of an unforeseeable power outage.

"The UPS gives us the confidence to schedule procedures fearlessly. The size and capacity of the UPS allow us to be confident we can complete procedures even under complete power losses."

For more information, contact GE Healthcare Accessories & Supplies at 1-800-558-5102, option 2, option 1, or visit us online at www.gehealthcare.com/accessories.

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Healthcare Re-imagined

GE is dedicated to helping you transform healthcare delivery by driving critical breakthroughs in biology and technology. Our expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery and biopharmaceutical manufacturing technologies is enabling healthcare professionals around the world to discover new ways to predict, diagnose and treat disease earlier. We call this model of care "Early Health." The goal: to help clinicians detect disease earlier, access more information and intervene earlier with more targeted treatments, so they can help their patients live their lives to the fullest. Re-think, Re-discover, Re-invent, Re-imagine.

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imagination at work