

POWER PROFILE

Customer: NCH Healthcare System

Location:

Naples, Florida, USA

Customer Business Issue:

Reliable emergency standby power for two hospitals

Solution:

- Three Cat® 3512C 1500 kW diesel generator sets
- One Cat 3512C 1500 kW mobile diesel generator set
- On-site technical support during peak demand hours

Cat® Dealer:

Pantropic Power



The 630 physicians of the NCH Healthcare System see patients more than three million times a year.

POWER NEED

Based in Naples, Florida, USA, the NCH Healthcare System is one of the most progressive healthcare providers in the country. Made up of two hospitals, as well as several specialty centers offering advanced heart, cancer, obstetric, newborn and pediatric care, NCH's 630 physicians see patients more than three million times a year.

Power failures are critical at sites like hospitals where public safety is at risk. An interruption in power can be devastating during surgery or medical procedures, or for patients who are on vital life support systems.

SOLUTION

At NCH, the hospitals' teams are accustomed to emergency scenarios but, on October 11, 2010, the staff at the downtown Naples hospital found themselves facing an emergency of their own. A fire had occurred in the hospital's central energy plant, knocking out power to the entire one-million-square-foot (93,000-square-meter) facility.

Instantly, the hospital's three Cat 3215C 1500 kW diesel generator sets began running.

"Right after the fire, we thought the outage would last a few days," said Walter Tester, director of facilities/construction management for the hospital. "But when we discovered how extensive the damage was, we knew we would need our backup generators for an extended time."

Once the Cat generator sets automatically switched on, one of Tester's first calls went to his local Cat dealer, Pantropic Power.

"Pantropic Power has provided our generator set support services for many years," Tester said. "Given the nature of the outage and the mission-critical nature of the hospital, we felt we needed Pantropic's expertise and direct supervision on site."

Following the fire, Pantropic provided an engineer to be on duty at the hospital during peak demand hours to monitor the generators' output, change fuel filters as required and perform other maintenance as needed.

At first, Pantropic Power engineers needed to change fuel filters every three hours as the older fuel worked its way through the systems, said Jim Yuille, regional manager for Pantropic Power. Yuille was in daily contact with Tester during the outage. "We had someone at the hospital during peak times, either from 8 a.m. to 6 p.m., 6 a.m. to 4:30 p.m. or 8 p.m. to 12 a.m. – depending on the surgery schedules," Yuille said.

That meant juggling staff, but everyone understood the importance of the job. "When a hospital is involved, you're talking about human lives," he said.

An additional Cat 3512C 1500 kW mobile generator set was brought on site as a precautionary backup if the hospital lost an engine. That backup generator was cabled to the central energy plant and ready to be tied into a chiller if needed.

RESULTS

Except for normal, scheduled maintenance, the three Cat generator sets delivered reliable power continuously for the next 35 days. The hospital required three different voltage ranges – 480, 277, and 110 – which required a 5,000 amp service. The Cat backup generator sets combined to provide up to 6,600 amps, far exceeding the required power need, using 3,750 gallons of diesel fuel per day during the emergency.

The healthcare system recently installed two additional Cat 3215C 1500 kW generator sets at its NCH North Naples Hospital, replacing two models from another manufacturer. Today, the north campus has three Cat 3215C

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1500 kW generator sets in synchronization to provide 100 percent backup emergency power. All circuitry on each campus is 100 percent operational while on generator power, providing physicians and staff with the ability to continue surgeries and other patient care without interruption during power outages.

Choosing Cat generator sets and relying on support from Pantropic Power to help the healthcare system run ready was a simple decision, Tester said. Caterpillar is synonymous with powerful and reliable generator set technology and Pantropic has specialized in

power generation solutions for more than 5 years.

“Based on my experience as a hospital facility manager for over 25 years, there is no other generator that is as dependable as a Cat,” Tester said. “And Pantropic is always available to apply their expertise on large engines and power distribution – whether it’s an emergency or just a routine service call.”

For more information, please visit cat.com/powergeneration



Cat® diesel generator sets supplied reliable power continuously for 35 days after a 2010 fire at NCH's downtown Naples hospital.