Market Segment: Healthcare

POWER PROFILE

Fred Hutchinson Cancer Research Center

POWER NEED

The Fred Hutchinson Cancer Research Center in Seattle, Washington, is a world leader in research to understand, treat and prevent cancer, HIV/AIDS and other life-threatening diseases. With over 3,000 employees, the center has pioneered bone-marrow transplant as a treatment for leukemia and other blood diseases and has made some of the world's important medical research advances during the last three decades.

As one of 39 National Cancer Institute-designated comprehensive cancer centers nationwide, and one of the world's largest cancer research centers, the Hutchinson Center is home to many sensitive biological samples and experiments.

Hundreds of research projects, constantly underway, must be maintained within a tight band of environmental conditions. The loss of temperature and humidity control could influence the accuracy of long-running experiments, causing the loss of years of data at costs running into millions of dollars. In addition, potentially life-saving advances in treatment could be delayed.

On Saturday July 1, 2006, one of the hottest days of the year in Seattle, one of the three cooling systems serving the Center's central freezer farm failed. The freezer farm has more than one hundred freezers at -80 degrees centigrade containing extremely valuable research. Maintaining -80 degrees centigrade is not easy and if the ambient temperature becomes too high, the freezers become overstressed. With one cooling system down and one of the hottest days of the year, there was cause for concern.

As the facility staff went into action, the ambient temperature in the freezer farm began to creep upward, threatening millions of dollars of on-going research. The A/C manufacturer reported that it would take about a week to get the needed parts. Something needed to be done – immediately.

SOLUTION

Robert Cowan, director of facilities engineering at the Hutchinson Center, implemented the contingency plan for the freezer farm. As part of that plan, he called NC Power Systems, the Cat® Rental dealer in Seattle. NC Power had worked at the campus before and knew its systems. The center had purchased and rented standby electrical generators from NC Power, which also maintains the center's generators and provides contingency planning for such things as Y2K.

NC Power had provided a 525-ton rotary screw backup cooling system earlier that same summer when the center's 600-ton back-up chiller failed. "Even though it was their standby chiller, the data and research at this institution is so valuable that they just had to have redundant chilling capability," says Dan Thomson, marketing manager for NC Power.

This however, was the first time the two had worked together for air handling,

The Fred Hutchinson Cancer Research Center is one of the largest in the world and has developed major breakthroughs in the treatment of cancer and other diseases. The Center requires careful temperature control and called upon NC Power Systems when a critical cooling system failed on one of the hottest days of the year.

CUSTOMER
Fred Hutchinson Cancer Research Center

LOCATION
Seattle, Washington, USA

CUSTOMER BUSINESS ISSUE
Emergency cooling for cancer research laboratories

SOLUTION
- 30-ton, 10,000 cfm air conditioner
- 100 kW Cat® XQ100 sound-attenuated generator

Complete system design, delivery, set-up, installation, operation and maintenance

CAT DEALER
NC Power Systems
Seattle, Washington, USA

CATERPILLAR®

and Thomson said it demonstrated the total support customers get from a Cat dealer.

NC Power rental salesman Charlie Tomsett was painting his house when his phone rang that hot Saturday morning. It was clear the research center faced a critical situation. Tomsett immediately made calls to arrange for delivery of a 30-ton, 10,000 cfm chiller from the NC Power inventory.

As part of the contingency plan, knowing that the equipment would have to be set up on the engineering department's loading dock, Tomsett also arranged for a 100 kW XQ100 sound-attenuated generator to power the temporary chiller.

The NC Power team quickly packaged, delivered and set up the equipment, then connected it to the building HVAC system with portable 20 inch ducting.

Just four hours after the cooling unit failed, NC Power had the emergency cooling system up and online. As soon as the turnkey system was fired up, the temperature inside the building began to fall, cooling the building and protecting its valuable inventory of scientific knowledge.

RESULTS

The rental system ran without trouble for a week while the building's A/C was repaired. While technical help from NC Power was readily available, the center did not need any work or maintenance on the temporary system during its time online. Thomson, for one, was happy that everything worked out well. "You're never going to duplicate that research," he says.

For his part, Cowan was extremely satisfied by the result. "I can't say enough about the support we got from NC Power," he said. "It was the beginning of a four day holiday weekend. Less than four hours after the call went out they were here and had their equipment operational. That's service, and I really appreciate Charlie and the rest of the NC crew giving up their weekend to help us out."

While the Hutchinson Center had a contingency plan and the staff of NC Power was familiar with their needs, Thomson notes that other companies can benefit by contacting Cat Rental Temperature Control planning experts ahead of time, so they know what they need if they ever find themselves in need of emergency cooling.

Thomson adds that dealers like NC Power have the engineers and staff to design, install, operate and maintain equipment. "The rental department is quite robust in depth and knowledge and with a network of go-to people within the industry," he says.

POWER PROFILE

Fred Hutchinson Cancer Research Center

A 30-ton, 10,000 cfm chiller from NC Power was connected to a 100 kW XQ100 sound-attenuated generator on the loading dock of the Fred Hutchinson Cancer Research Center in July, 2006. It took NC Power just four hours to gather the equipment, transport it, set it up and get the system running when the Center's cooling system failed.

www.cat-electricpower.com

LEDE7026-01

CATERPILLAR®
TODAY'S WORK. TOMORROW'S WORLD.™