Many organizations say they strive for continuous improvement. But for some, those buzzwords are just that: Buzzwords that don’t reflect the reality on the ground. For staff at Sharp Metropolitan Medical Campus, continuous improvement isn’t a goal, it’s a way of life.

The campus is part of Sharp HealthCare, a not-for-profit regional health care delivery system in San Diego. As the region’s single-largest health care provider, Sharp Metropolitan Medical Campus offers a complete range of specialty hospitals.

Customer:
Sharp Metropolitan Medical Campus, San Diego, Calif., Sharp Chula Vista Medical Center, Chula Vista, Calif.

Cat® Power:
Metropolitan Campus has four 3512 Cat gensets. Sharp Chula Vista has two 3512 Cat gensets.
and medical services. The campus is home to three hospitals—Sharp Mary Birch Hospital for Women & Newborns, Sharp Mesa Vista Hospital and Sharp Memorial Hospital—as well as other facilities. The campus is served by more than 1,100 physicians and another 3,800 employees and includes 2.87 million square feet of facilities over 36 acres.

Four Cat® 3512 gensets serve as emergency backup for the life-safety systems and other essential operations on the campus, said Armando Montes, operations manager for the central plant facilities.

“Of course, our intention is not to use them, but in a hospital setting we need to have the capability to maintain the facility in the event of a major catastrophe,” Montes said. “We need to have the confidence that those generators are going to work when we need them. Whenever we’ve had to call on them, they’ve been there—they’ve been reliable.”

Process of Improvement

Three of the gensets are more than 20 years old and the newest was installed in 2009, said Toby Henry, central plant shop lead for the campus. Keeping those standby units—and other equipment in the central plant—in tip-top condition is key, Henry said. Other hospitals in the organization have been directed to make their central plants look and operate like Memorial’s, Henry said.

“We’re really proud of our central plant. Our guys have put a lot of effort into it and, best of all, it runs as well as it looks,” Henry said. “If you were to walk into our plant, you’d never guess that it’s 20 years old, if you saw the generator room, you’d think it was brand new.”

Sharp’s physical plant—from its color-coded HVAC systems to rigorous testing protocols—has been used to market Sodexo Corp. capabilities, Montes said. Sodexo’s Operations and Management Facility Solution group oversees the hospital’s plant.

“We’ve actually been told by members of the hospital administration that they can sleep at night knowing they won’t get a phone call, because we’re running the plant,” Henry said.

And, just as the hospital relies on Montes, Henry and their crew to keep things running, Montes and Henry rely on their Caterpillar Dealer, Hawthorne Power Systems, to take care of the generators.

The decision to use Hawthorne for maintenance was based on the hospital’s goal of continuous improvement. Who better to service the hospital’s power systems than trained experts?

“We firmly believe in a rigorous preventative maintenance program that ensures that our equipment does not fail,” Henry said. “We invest the resources to make sure we don’t have any loss of service. That’s how we prove our value.”

Bottom Line: No Failures

Redundancy is key to the organization’s success, Henry said. They plan and train for emergencies on top of emergencies to ensure that all life systems are continuously in service.

“Our goal is zero failure. We have backups for backups for backups. I don’t do anything without four plans, with another four plans waiting in the wings,” Henry said.

“And our Cat generators are part of those plans—a critical part—because we’re talking about life safety,” Montes added.

Henry said the entire campus can be run “with some capacity to spare” on three of the four generators. If there’s an interruption of power from the main grid, the Cat gensets will be powering the system within eight seconds.

The campus stores 30,000 gallons of diesel for the gensets, enough fuel to keep them running for 2.5 days, Montes said.

“The goal with our plant is to be an island, to be self-sufficient in case of an emergency,” Montes said. “We know our biggest risk here in California is earthquakes. We know that if there’s an earthquake, trucks might not be able to reach us to refuel our tanks.”

A recent water main break put the hospital’s planning—and the Cat gensets—to the test.

On Jan. 2, a water main on campus failed, sending hundreds of thousands of gallons coursing through the campus. A main, below-grade loading dock, took the brunt of the deluge.

“Whatever the area was adjacent to the hospital’s main switchgear room.

“At that point, we were concerned we could have an explosion, or at the very least a system failure,” Montes said.

“So we shut it down.”

The Cat gensets were put into service, providing power to the campus for several hours while the water main and the flooded areas were repaired. Henry was named Employee of the Month for his efforts during the crisis.

“The water main break gave us the opportunity to prove to the administration what we can do,” Montes said. “And our Cat generators are key components for letting us do our jobs well. Just as the administration can count on us to make sure our patients are kept safe and comfortable, we can count on Caterpillar and Hawthorne to stay powered.”

Reliability Matters

Chula Vista Counts on Cat Gensets, Dealer Expertise

Sharp Chula Vista Medical Center is a 343-bed hospital with the largest array of health care services in San Diego’s South Bay. It’s also home to the region’s most comprehensive heart program, one with a long history of pioneering new cardiac technologies and procedures in San Diego—including the first cardiac catheterization, first open-heart surgery and first heart transplant.

It takes power to conduct those life-saving activities—constant, uninterrupted power. The people at Sharp Chula Vista Medical Center count on two Cat gensets to provide emergency backup for all of their essential activities, said Mike Haselton, manager of engineering at the hospital.

To keep them run ready, Haselton depends on his local Cat Dealer, Hawthorne Power Systems, for maintenance.

“I’ve met representatives from some of the other companies; I’ve talked to them, but I feel more confident with Hawthorne because of the size of the organization, because of the expertise of their staff and because of the availability of parts,” said Haselton, who’s been with the hospital since 1988 and in his current position since 2001. “What I like is the reliability of being able to pick up the telephone and say ‘I’ve got a problem’ and know that Hawthorne will get someone here right away.”

Although Cat gensets are the main back up on the hospital campus, other generators are also deployed. Hawthorne services those units as well.

“They do work on things that aren’t yellow,” he said.

Haselton also said he relies on the experts at Hawthorne to keep him up-to-date on regulatory issues in California that may affect standby emergency generators. He’s also used Cat Rental gensets, when necessary, during construction projects.

“Hawthorne has been instrumental in making sure we get the rental units we need when we need them,” he said. For Haselton, the expertise of Hawthorne and the dependability of Cat gensets mean one thing: peace of mind.

“We’re not a customer with a backhoe or excavator that’s stopped out there on the jobsite,” he said. “We’re a hospital and Hawthorne understands that. And when I’ve had an issue—and they’ve been minor—I make a phone call and it’s taken care of.”

AWARDS
• Sharp HealthCare received the Malcolm Baldrige National Quality Award, the nation’s highest presidential honor for quality and organizational performance excellence.
• Sharp HealthCare was named among the top 100 integrated health care networks in the nation in an annual survey conducted by SDI, a leading health care data analyst. Sharp was No. 1 in California.
• Sharp Memorial Hospital was awarded the Press Ganey Top Improver Award for continuous improvement in patient satisfaction scores. Sharp Mary Birch Hospital for Women & Newborns was awarded the Best Place to Practice Award for the second consecutive year.