

CBRE TRANSFORMS BUILDING ENGINEERS INTO PROBLEM SOLVERS



BY RICHARD STUKEY

CB Richard Ellis (CBRE) uses education and training to help its building engineers provide '100 percent uptime' for mission critical clients

Most facilities engineers and owners will tell you they work tirelessly to ensure that their tenants can work in uninterrupted comfort and safety. If you're one of those facilities engineers or owners, you know how difficult it is to achieve the facilities engineering profession's Holy Grail of "100 percent uptime." But you also know that most facilities face times when the forces of nature, or human error, come into play—and unexpected power outages, water leaks, fire drills and other interruptions can make the goal of 100 percent uptime as elusive as the Holy Grail.

For "mission critical" facilities there is an even greater urgency to achieving the goal of 100 percent uptime. Mission critical facilities are buildings used by institutions like banks, brokerage houses, and other facilities where even minor interruptions in power, cooling or lighting can cost the client millions, or even tens of millions of dollars.

For Gary Laorenza, CPE, CPMM, director of engineering and New England regional manager for CB Richard Ellis (CBRE), achieving anything less than 100 percent uptime is not an option.

"Our mission critical clients expect 100 percent uptime," he said recently. "Any interruption in building operations not only impacts their business, but it can have a ripple effect on other businesses as well. So we strive for 100 percent uptime—and so far we've been lucky enough to accomplish that goal."

But luck seems to have very little to do with the success of his teams in achieving the 100 percent uptime goal. "Training and education" is the phrase he often uses to describe how his company achieves 100 percent uptime for his client's facilities. As Laorenza makes clear, not only does CBRE set a high standard for training its teams in the New England Region, but his client—a Fortune 500 banking company that hires CBRE to operate its buildings—"also believes very strongly in the need for training and education."

How much training does it take to keep these mission critical buildings operating smoothly 24 hours a day, 365 days a year? "A lot," Laorenza answered. "For our group, it is into the thousands of hours—and I've been around enough to know we do more training here than any company around. We start by hiring

qualified people and then we continue to train them to make them even better. We send them to conferences and training venues where they learn to work on the equipment and how to fix that equipment. Every one of those training hours is well worth what it costs," Laorenza noted.

"The goal of this training and education is to transform facilities engineers into problems solvers." He continued: "Whether a person's specialty is mechanical, electrical, physical engineering, if you want them to become successful facilities engineers, you need to give them the right set of tools [that is, training] so they can become problem solvers in all aspects of building operations." He added: "The reason is simple: building engineers are problem solvers. You just don't put someone in a building, no matter how qualified they are, and say 'see you later.' You *have* to train them if you want things to run right."

For security reasons, his client does not allow its company's name to be used in any publications. Nevertheless, Laorenza and his team members share a high regard for his client's understanding and support when it comes to education and training.



ABOVE: (Left to right) Dan Wren, Dennis Alley, Becky Davis, Tom Blanchard, Richard Price, CBRE facilities engineers working on at a “mission critical” site **RIGHT:** Gary Laorenza, CPE, CPMM, says his mission critical client “believes very strongly in the need for training and education.” *Photos courtesy of CB Richard Ellis*

Others on this mission critical team clearly agree. “The engineering platform within our client’s organization is highly respected and values greatly our CBRE engineering team talent and dedication,” noted Ken Keith, CBRE senior chief operating engineer, critical facilities. “Our client is disciplined but not rigid. They are open to innovation, new thinking and new approaches to performing sensibly in today’s technology-sensitive world. They understand the need to invest in education, training, and advancing our skill sets at every opportunity. This philosophy is recognized by both my company, CBRE, and our client—and it’s great to know that they understand the importance of being trained on all the new building systems that are out there today.”

But while training is important, Keith also understands the need for a facilities staff to be proactive when it comes to becoming familiar with and understanding their roles. “Our client partners with the best training talent in the industry to achieve its number one goal of 100 percent

uptime across a very complex mission critical facility portfolio,” said Keith. “But it is the responsibility of each member of our extended engineering team to become familiar with, and properly execute, established and proven operational procedures. Team members must also follow approved guidelines, while still meeting tight schedules.”

Training may be just one element of helping the individual members on their team achieve 100 percent uptime for their mission critical facilities, but for both of them it is the most important. CBRE helps facilitate the effort by communicating the need for comprehensive training to their clients. They provide corporate leadership

Formal training classes have been provided by APC, Simplex, Eaton Powerware, Trane, Caterpillar, American Train Co, C&D Battery and others. But Laorenza, Keith and others at CBRE agree that the CPMM Review Course is, as Laorenza puts it, “the most important training of all.”

CPMM Review Course: Putting It All Together

Scott Kelley, an engineering services manager, believes one important element of the CPMM program is how it can help the new facility engineer to successfully operate an entire building. “The new engineer may be very smart, and have good knowl-



for client companies with a comprehensive justification for training on a multi-year and multi-stage basis. They also underscore the need for “mock drills” of emergencies such as power outages, water leaks or fire alarms. These drills are rehearsed and honed, according to Laorenza, “until the procedures become engraved in their minds of each of our facilities engineers.”

edge about different building systems, but they may never have operated an entire facility before,” he said. “That person could take the CPMM review pack and study it, and they would know how to run the facility. It includes all the things they need to know, including maintenance, planning, and scheduling. I wouldn’t have minded having it when I was first starting—but



The Importance of Training at CBRE

CB Richard Ellis team members gave these specific reasons for why AFE's CPMM Review Course is such an essential element of their overall training program, as well as the most important topics discussed in the CPMM course (actual quotes):

- **Safety and health** (from Ed Godek's team) The use of job hazard analysis, hazard evaluation and risk analysis is very important before we start performing any tasks.
- **Maintenance training** (from John Palazzo's team): Having a good training program in place to ensure that you set your team up to succeed.
- **Understanding the differing types or maintenance methodologies** (from Pete Lashley's team): Our Client and CBRE utilize Reliability Centered and Total Predictive maintenance.
- **CMMS** (from Tom Shannon's team): The CMMS system has become an integral part of maintaining equipment history, useful life, planning and scheduling and now we use it to help with capital planning.
- **Inventory and procurement**: Maintaining a critical parts inventory to ensure uptime.

The CMMS program also helps put together a substantial amount of information facilities engineers acquire both on the job and during formal training sessions. "In addition to all the other training we do, we needed a program that could pull together all the information a facilities engineer may already know and have it all make more sense," said Keith. "Our best results were, and continue to be, through the CPMM Review Course. It was the most well received program by our engineers and management, and really drove home the concept of being able to perform our work at a high level and follow the methodologies we've learned."

For Laorenza, providing training for his employees is not an option. "We will not leave an employee to tread water," said Laorenza, who has been in various positions as a missions critical facilities professional for more than 20 years, including stints on mission critical projects with Wang Laboratories and a major financial corporation. "We want our employees to bring more value to our company and to our client. The value of education and training is tremendous."

The importance of education goes back to Laorenza's own experience as a facilities engineer. "I came up through

CBRE engineers and staff with AFE Region 8 Vice President Steve Nicholas (wearing suit) at a CBRE facility site. *Photo courtesy of CB Richard Ellis.*

it is a very useful tool even for those who have been around a while."

Kelley added that the CPMM course provides a "common thread" for both their current facilities engineers and new hires from other companies.

"The CPMM program helps them to see the big picture and understand why businesses operate the way they do," said Laorenza. "It gives them a number of different options and philosophies for how to handle a situation. CPMM helps them to understand why—it transforms them from someone who just does things because that's what they were told to do, into problem solvers, the type of person who can handle any type of situation whenever it occurs."



the ranks, and I always had a quest for learning and knowledge. I wanted to make myself the resident expert on the products we used to keep our facilities operating, so I obtained in-depth knowledge that would help my employer," said Laorenza. "As a result, I like to make sure that our building engineers have every tool they need to learn about the different equipment and what makes it operate."

ally." He continued: "It is one more demonstration that some of the largest corporations in the country are accepting AFE's CPMM program as the most important certification program in the industry today. If a company like CBRE is able to implement even one thing learned from our CPMM program, they will save on the cost of the program 10 times over."

Nicholas added. "It demonstrates that another large and well-respected company is accepting the CPMM program for their people."

The Federal Facilities Personnel Training Act provides another reason for becoming CPMM Certified. "This law makes it a necessity for our team members to become certified by an organization like AFE if they want to work with a

"If you want [people] to become successful facilities engineers, you need to give them the right set of tools so they can become problem solvers in all aspects of building operations."

Steve Nicholas, AFE Region 8 vice president, CPMM instructor and president of Air Industries, added, "The overwhelming success of the CPMM program in the New England Region of CBRE should help smooth the way for the program to be implemented by CBRE nationally and internation-

According to Nicolas, "there is no downside whatsoever for the widespread acceptance CBRE has given our CPMM program, and a tremendous amount of upside for them."

In turn, the acceptance of the program by CBRE "helps strengthen our credibility even further within the industry,"

government client," Laorenza noted. "So that's one more advantage of taking the CPMM course." 

Richard Stukey is senior editor of the *Facilities Engineering Journal* and business development director for the Association for Facilities Engineering.



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