



Broader Knowledge Saves Time, Money

Eastern Illinois University

Facility Type:	Public University
Square Footage:	72 buildings, 3 million square feet
Date Built:	1895–2005
Number of Staff:	1,900, including a facilities staff of 150
BOC Supervisor Profiled:	Gary Reed, Director of Facilities Planning and Management



Facility maintenance of **Eastern Illinois University (EIU)** is no easy task. The campus—spanning nearly 325 acres in Charleston, Illinois—includes 72 buildings ranging in vintage from 1895 to 2005 and covering some 3 million square feet. Facilities include classroom buildings, administrative offices, a library, laboratories, housing for 6,000 students, physical education facilities, facility maintenance shops, the physical plant, and even a greenhouse.



Gary Reed, Director of Facilities Planning and Management, oversees it all with a facilities staff of 150. The complexity of the job demands that his staff be up-to-date in basic operations and maintenance procedures and coordinated in their approach. The **Building Operator Certification (BOC)** training program has provided Gary with an easy and effective way to train and certify members of his maintenance staff.

■ RESULTS

Cross Training of Specialized Workers

EIU's facility operations and maintenance staff includes carpenters, plumbers and pipefitters, electricians, and other tradespeople—skilled workers who offer valuable knowledge and experience, but who are often less familiar with the operations and maintenance aspects of facilities work outside their specialty. They carry out jobs that are strictly defined by the collective bargaining agreements negotiated by their trade unions, resulting in little or no crossover of job functions. This has contributed to a lack of understanding of the energy impact of maintenance

actions carried out both inside and outside of a worker's area of expertise.

Gary says that BOC training has allowed workers to look beyond their specialty trade and develop a broader understanding of facility operations. They now recognize how their work impacts total energy consumption and savings. For example, BOC training in HVAC systems and energy conservation measures has made the pipefitters more careful about replacing insulation around steam pipes following repairs.



4 BOC Success in Operations and Maintenance Series



ABOUT BOC

Building Operation Certification (BOC™) is a nationally recognized training and certification program for building operators offering improved job skills and more comfortable, energy-efficient facilities. The training topics include building systems overview, energy conservation techniques, HVAC systems and controls, efficient lighting fundamentals, environmental health and safety regulations, indoor air quality, and facility electrical systems.

The Northwest Energy Efficiency Council (NEEC), a nonprofit business association of the energy efficiency industry, developed BOC with support from the Northwest Energy Efficiency Alliance (NEEA).

The Midwest Energy Efficiency Alliance (MEEA) is a 501(c)(3) nonprofit organization and a collaborative network whose purpose is to advance energy efficiency in the Midwest in order to support sustainable economic development and environmental preservation. MEEA administers a regional BOC program in Illinois, Minnesota, Missouri, and Ohio with the support and involvement of the Illinois Department of Commerce and Economic Opportunity; the Minnesota Department of Commerce, Minnesota Power, and other Minnesota energy utilities; the Energy Center of the Missouri Department of Natural Resources and AmerenUE; and the Ohio Department of Development and the Ohio Public Facilities Maintenance Association. For a complete schedule of upcoming BOC training series, visit www.boccentral.org.

Likewise, the electricians learned that even small steam leaks can lead to significant energy loss over time. As a result, they are now more likely to report these leaks and other maintenance issues encountered in their daily work to the appropriate staff member for correction.

Gary sees value in providing all members of his maintenance staff with training on mechanical and electrical systems, even those whose job responsibilities mainly involve carpentry or other building repairs. BOC-trained employees are more comfortable communicating with the outside contractors called in during building repairs. Within the maintenance department, the common base of knowledge developed in BOC training is helping the various trades work together more effectively. Everyone contributes to the University's aggressive energy savings goals.

Energy and Cost Savings

Major energy conservation and fuel management initiatives carried out under Gary's leadership have resulted in significant energy savings for the university. EIU's annual energy consumption has decreased by nearly 33% since 2000. This translates to an impressive \$15 million in avoided

costs. Gary has redirected some of these avoided costs to fund BOC training for his staff. He believes that the modest investment in training and a motivated and skilled operations and maintenance staff will ensure ongoing energy savings and a continued high rate of return on the capital investment in energy-efficient equipment.

■ A WORTHWHILE INVESTMENT

Like all state universities, EIU faces growing budgetary constraints and rising energy costs. Under these circumstances, optimizing facility operations is more important than ever. Gary says that BOC training offers a format for educating staff and certifying that they have a baseline of knowledge in operations and maintenance procedures. It builds an excellent foundation for day-to-day operations and stimulates interest in saving energy.

"I believe the very best energy conservation measure is top-notch skill developed within a facility's maintenance staff," Gary said. "An investment in training has a payback. The BOC program is a great move in the right direction."

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—Gary Reed, Director of Facilities Planning and Management, Eastern Illinois University

