

Professional Development Provides Winning Edge



Sarah Bush Lincoln Health Center

Facility Type:	Multifunctional Health Care Facility
Square Footage:	409,997
Date Built:	1977
Number of Staff:	1,500, including 22 building operators
BOC Participant Profiled:	Dennis Baker, Energy Center Supervisor



Sarah Bush Lincoln Health Center (SBLHC) in Mattoon, Illinois, is a great place to work—and that’s not just a line from the company prospectus. In 2005, the health care facility earned a spot on *Fortune* magazine’s “100 Best Places to Work” list. What sets the company apart? Its commitment to the professional development of its employees is one factor.



Richard Shelton, Facility Services Director, and **Dennis Baker, SBLHC Energy Center Supervisor**, know this firsthand. At the recommendation of Director Shelton, Dennis and other members of the hospital’s facility engineering staff enrolled in **Building Operator Certification (BOC)** training. Besides offering personally rewarding professional development, BOC has increased knowledge and skill in building operations and maintenance in real ways.

With 187 beds, administrative offices, laboratories, surgical suites, and other specialized spaces, SBLHC presents special challenges when it comes to maintenance and energy use. BOC training has helped Dennis and his team develop and carry out innovative strategies that keep SBLHC running smoothly.

■ RESULTS

ENERGY STAR®

BOC training provided Dennis with information and tools to assist in the development of a comprehensive Energy Plan. The plan includes an important goal of becoming an ENERGY STAR qualified health care facility. Through BOC, Dennis

learned to use the ENERGY STAR Portfolio Manager to measure the energy efficiency of SBLHC, determine its rank on an energy performance rating scale, and compare it to similar facilities.

Dennis and his team registered and benchmarked their building, discovering that it had an energy performance rating of 32. The standard for similar health care institutions is 50, and a rating of 75 is required to earn the ENERGY STAR. Several factors contributed to SBLHC’s low rating, including an inefficient HVAC system in the patient tower, inconsistent temperatures throughout the facility, and inefficient lighting.

BOC training covered many easy and cost-effective





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.

energy-saving measures that would move SBLHC closer to ENERGY STAR. These included installing nighttime and weekend setbacks on air handlers, adding steam pipe insulation, performing steam trap maintenance, and establishing a facility-wide temperature policy. Dennis also installed occupancy sensors where possible to capture energy savings in lighting.

The energy cost savings from these small improvements in operations and maintenance are helping fund larger, more costly projects that will return even greater savings over time. For example, SBLHC is upgrading to more energy-efficient lighting systems throughout the facility. In addition, SBLHC is pursuing a partnership with Allied Waste Management to evaluate the potential for using landfill methane gas to fuel the hospital's boilers and possibly a combined heat and power (CHP) plant for the hospital. Through initiatives like this, SBLHC hopes to reduce energy usage by 30%, raise building performance to ENERGY STAR, and tap into renewable energy resources.

Lighting Retrofit

BOC training proved invaluable to Dennis and SBLHC maintenance staff as they completed the first phase of a five-year plan to upgrade lighting throughout the facility. Prior to BOC training, Dennis had little opportunity for training in the principles of good lighting design.

Through BOC, Dennis learned more about the lighting characteristics of various types of lamps and gained experience using a light meter to determine the amount of lighting appropriate for different spaces. The training helped him conduct lighting surveys and taught him which types of fixtures, lamps, and lighting controls best meet his facility's needs. He discovered that group re-lamping, a strategy covered in BOC training, saved time

and money and that simply cleaning fixtures when re-lamping improved light output.

Dennis began replacing the T-12 fluorescent fixtures and magnetic ballasts with more energy-efficient fixtures using T-8 lamps and electronic ballasts. In a corridor that was overlit, he removed every other light fixture, not only saving energy, but also improving lighting quality. Dennis is on track to complete the remaining T-8 upgrades by 2009. He also plans to install more occupancy sensors and LED exit lighting. Armed with the knowledge gained in BOC training, Dennis is moving SBLHC closer to ENERGY STAR.

More Knowledgeable Staff

BOC training has dramatically expanded the knowledge of the SBLHC facility services staff—and inspired them to stay abreast of industry developments. Even with 24 years of experience and training in facilities maintenance, Dennis found the BOC courses helpful in reviewing basic concepts and learning about new technologies, especially building control systems. BOC helped him to develop a Utility Management Manual that is used to train new employees and serves as a reference for current employees. In addition to detailing operations and maintenance procedures, the manual covers important environmental health and safety regulations.

■ A WORTHWHILE INVESTMENT

"BOC training brings all operations and maintenance staff to the same basic level of understanding and provides an excellent review for more advanced personnel," Dennis said. He feels BOC is especially important for new employees. "BOC training would make any job candidate I interview more attractive. I'll definitely list it on my resume."

