



Building Operator Certification Level II Okemos Schedule - August 2012

Building Operator Certification® Level II training includes more than 60 hours of classroom and project work (6.1 CEUs) in building systems operation and maintenance. Each course in the series is completed in a one-day training session, except *BOC 203 – HVAC Troubleshooting & Maintenance*, a two-day course. To become certified, participants must pass an exam at the end of each training day and complete assigned projects. Unless otherwise noted, training begins at 8 a.m. and ends by 4 p.m. Tuition for BOC training is \$1,200. **Customers of Consumers Energy may be eligible for a \$600 tuition rebate upon successful completion of all course requirements. Registration deadline: August 15th, 2012.**

Our training facility and meals in Okemos are generously provided by Consumers Energy.

Online registration is available at www.boccentral.org.

Okemos Conference Center
2187 University Park Drive.
Okemos, MI 48864

Date	Course
Wednesday, August 22, 2012	BOC 201 – Preventive Maintenance & Operations
Wednesday, September 5, 2012	BOC 202 – Advanced Electrical Diagnostics
Wed-Thurs, September 19-20, 2012	BOC 203 – HVAC Troubleshooting & Maintenance
Wednesday, October 3, 2012	BOC 204 – HVAC Controls & Optimization
Wednesday, October 17, 2012	BOC 211 – Motors in Facilities
Wednesday, October 31, 2012	BOC 214 – Building Commissioning

For more information, contact:

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The Midwest Energy Efficiency Alliance is providing BOC training in Okemos, Michigan with generous support from Consumers Energy and the Michigan Department of Energy, Labor and Economic Growth. The cost of this training will be paid in full by eligible Consumers Energy customers. A partial reimbursement of \$600 may be issued to the customer by Consumers Energy upon successful completion of the certification requirements. Consumers Energy will have sole discretion to determine successful completion of the program.





BOC LEVEL II COURSE DESCRIPTIONS

BOC 201 – PREVENTIVE MAINTENANCE & TROUBLESHOOTING PRINCIPLES (CORE)

Covers the step by- step process for starting and operating a preventive maintenance program that produces energy savings and improves equipment reliability. Emphasis on effective troubleshooting methods for problem identification, testing procedures, problem solving, and operational analysis.

BOC 202 – ADVANCED ELECTRICAL SYSTEMS DIAGNOSTICS (CORE)

Participants will learn to locate and repair electrical opens, shorts, overloads, and high resistance. The use of digital electric meters is taught along with maintenance and operational procedures to prevent electrical problems and evaluate power quality issues for the facility.

PROJECT: Power Quality Upgrade Plan

BOC 203 – HVAC TROUBLESHOOTING & MAINTENANCE (CORE)

Learn to troubleshoot and improve the efficiencies of the primary heating, cooling, and ventilation systems of commercial buildings. This intensive two-day course will focus on system performance evaluation and efficiency optimization of central boiler and chiller systems, vapor-compression cycles of AC and heat pump systems, and of distribution and ventilation systems. Two days.

PROJECT: HVAC System Comparison

BOC 204 – HVAC CONTROLS & OPTIMIZATION (CORE)

Learn energy efficient operations, maintenance, and service of HVAC controls and related devices for central air systems commonly found in commercial buildings. The course will cover control principles, components, computerized controls, and calibrating the controlled sub-systems.

PROJECT: Control System Diagram

BOC 211 – MOTORS IN FACILITIES

Understand how motors work and identify their uses and applications in facilities. Learn about the steps involved in a quality motor repair and how to make effective repair/replacement decisions when motors fail.

BOC 214 – INTRODUCTION TO BUILDING COMMISSIONING

Introduces the building commissioning process for new and existing buildings with an emphasis on existing building commissioning and the building operator's role. Topics include an overview of commissioning types, the elements of a successful project, working with a commissioning service provider, and the building operator's role in a commissioning project. At the completion of this class, students will understand the range of commissioning; when, where, and what type of commissioning may be appropriate for their building or project; how building operators can reduce commissioning costs through active participation in the process; establish a list of expected work products (deliverables) from a third party commissioning service provider; and access the available resources.