BOC 1003 Instructor Notes & Metrics

Overview

One major program goal of the BOC is to increase participants' ability to identify areas for reductions in energy consumption and demand and to design projects to accomplish this. The competency basis of the Building Operator Certification adds responsibilities to the instructors to ensure appropriate material coverage and effective delivery so that participants are successful on the test and any related project assignments (see below). To the degree possible, instructors should encourage and maintain an interactive classroom environment to enable participants to learn from each other's experiences and apply the information to their facilities. Metrics are defined for Class Exercises, Project Debrief, and Proctorship of BOC Tests to ensure quality of program delivery. You should familiarize yourself with these metrics and seek assistance from the BOC program administrator or the BOC office, if questions arise.

Preparation

Review the suggested activities and checklist, below, and reference the project workbook and review the project rubric from the previous class. Both provide criteria for effectively engaging participants, promoting discussion on key topics, and helping participants review and check for understanding. Since class activities are a required component of BOC training, determine if you will be implementing activities suggested or equivalent (objective, method and time) activities of your choice. In making your decision, remember that the ultimate goal is to facilitate the learning by adults who prefer experienced-centered and problem-centered instruction.

Speak with your BOC program manager to determine who is sponsoring the BOC course. The BOC program helps connect participants to local resources including utility programs that can assist then with their energy efficiency projects. Check the www.dsireusa.org website. DSIRE is a comprehensive source of information on state, local, utility and federal incentives and policies that promote renewable energy and energy efficiency. Research and become familiar with utility rebate and incentive programs, state energy office initiatives, and local energy efficiency trends and initiatives relevant to the class subject matter. Use the research to supplement discussion and tailor/adapt BOC curriculum to support sponsor interests. For example:

1. Describe how the BOC sponsor's EE initiative and/or DSM program benefits building owners.
2. Provide one or more examples of how their initiative/program relates to the topic you are teaching. What would a building operator need to know about this relationship? How would you tailor the instruction to share this information with the participants?

Presentation Materials

The BOC Program provides electronic MS PowerPoint slides that complement the participant handbook to help you prepare participants for the tests and exercises. We encourage you to enhance the slides with your own teaching aides provided these do not confuse coverage of the basic materials nor create any ambiguity in the minds of the participants. These aides might include additional slides, case studies, demonstration props and specialty equipment,

videotapes, and in-class exercises. Instructors are also encouraged to note current changes and developments in the topic they are presenting. See the suggested props/specialty equipment in the checklist below.

Lighting is a product and technology intensive topic. The suggested prop list is the minimum instructors are expected to bring to the class. Be sure and bring as many props as are practical to transport. This class does have 3 required class exercises (see discussion below). These exercises are described in slides 108, 109 and 111. Instructors are free to do them at any point in the day they believe is most appropriate. Beyond these 3 exercises, instructors should engage the class more frequently in discussions about workplace experiences, product applications, and local utility incentives.

Participant Materials
Participants receive a handbook that complements the presentation slides. The handbook may contain pages, illustrations, tables, charts, and other documents, supporting activities. Instructors should reference the handbook during class and refer participants to specific pages when giving instructional cues.

Class Exercises
Metric: integrate a minimum of 1 hour of non-lecture, participant-centered activity into the training day.

Class exercises are activities led by the instructor in class to enable participants to practice skills and concepts taught. The average retention rate for lecture mode of instruction is 5% compared to 50% for discussion group and 75% for practice by doing. Additionally, activities break up a long day of presentations and offer participants an opportunity to network with and learn from each other's experiences. Most classes in BOC Level I and II have several suggested in-class exercises for the instructor to administer.

BOC 1003 offers many opportunities for the instructor to engage the class by asking about the types of lighting systems used in their facilities, the responsibilities they have to maintain these systems, and the experiences and challenges, if any, they have with lighting systems. These discussions are important to participants' learning experience in the classroom. Review the suggested exercises below.

Project Assignment
Metric: allot a minimum of 10 minutes of class time facilitating a debrief on the project assignment from the class taught before yours.

Successful completion of all project assignments is required for Level I certification. It is therefore important to ensure participants understand the assignment and are comfortable completing it. Participants return the completed projects to the following class where it is reviewed and graded by the training coordinator.

Review the Project Workbook to familiarize yourself with the project assignments. Review the project specific to the class taught before yours (see BOC schedule at this URL – administrator

provides URL). Develop three questions you would use to facilitate the discussion keeping in mind the goal of providing participants with the opportunity to share their experiences and create action steps for implementing energy efficiency improvements.

The instructor is responsible for reviewing the project assignments at the end of the class before administering the test. Refer participants to their Project Workbook and grading rubric when reviewing the assignment.

BOC Test Proctor Procedure
Metric: follow the BOC test procedure.

The BOC test is designed as an assessment of a participant's grasp of the material and it is essential that the integrity of the test be maintained. The following test procedure maintains the integrity of the test by preparing participants to be successful in the absence of coaching to the test.

TEST PROCEDURE: The instructor is responsible for administering the test and will be present throughout the test to answer questions. The instructor is permitted to clarify the questions, if needed, but may not provide the answers to any questions under any conditions.

At the beginning of the class session, the instructor will review the day's agenda, including the timing of the test and general points concerning its administration. The instructor will review the test procedures and restrictions with participants prior to taking the test.

The tests are open-book and any notes or handout materials may be used as a reference. A period of one hour is available for the test, but it will not be strictly timed.

Coaching of participants about material that appears on the test is not permitted during instruction of BOC classes. Directing participants to highlight or put post-it notes at specific points in the Participant Handbook is also not permitted.

The instructor is responsible for ensuring a quiet test environment, which includes no use of cell phones and no unnecessary conversation of any kind while the test is underway.

When finished, the TEST BOOKLET and the COMPETED ANSWER SHEET should be turned in to the instructor or the site coordinator, as appropriate.

Evaluation
At the end of class, all participants will complete a *Class Evaluation* form after taking the test. The evaluation is designed to collect information about the class content, instruction, and future interest in topics. The information is used by NEEC to make improvements to the curriculum, to share with instructors, and to plan future classes offered in the BOC program.

	Instructor's Checklist ☐ Number of people expected: _____ ☐ Scheduled tour of facility ☐ Classroom set-up confirmed ☐ White board, Easel, Markers ☐ Instructor bio ☐ Participant IDs ☐ Pens and sign-up sheets ☐ Evaluation forms ☐ Participant handbooks ☐ Test booklets ☐ Test answer sheets ☐ Duct tape ☐ Extension cord ☐ Props: Portable efficient retrofit and replacement equipment. Lighting Catalogs, books and other print resources. ☐ Digital Light Meters ☐ Ballasts, Blubs and Tubes ☐ Lighting Sensors, Controllers, Switches, Dimmers & Relays ☐ Lighting Facts® Labels ☐ Photocells ☐ Fixture lenses	

	☐ Egg crate ☐ Prism ☐ Reflector ☐ Light box ☐ Lamp bar to demonstrate various lamp color and brightness ☐ Flicker checker	