

BOC 2001B Outline

Building Scoping for Operational Improvement

TEXTS:

BOC 2001B Student Handbook
BOC Level II Project Workbook
BOC 2001B Student Handbook Appendices

- ACME Scoping Interview Guide
- O&M Checklists
- ACME Building Operations Map
- BetterBricks Building Night Walk Brief
- ACME Scoping Report

CLASS TIME

Lecture: 150 minutes (2.5 hours)
Activities: 165 minutes (2.75 hours)
Breaks: 45 minutes
Test: 60 minutes
Total: 420 minutes (7 hours)

PROJECT ASSIGNMENT: 2001B

- Complete a Scoping Interview Guide
 - Interview the chief engineer or other qualified personnel
 - Document findings about staffing, vendors, energy management practices, performance goals, occupant complaints, issues, known problems
 - Document status – mechanical drawings, control sequence, equipment repair records, TAB reports

- Complete a building operations map using template in handbook appendix (may also be available as an Excel spreadsheet on the LMS if one is used) – covers type, size, operating hours, control system
 - General
 - Plant
 - Air systems
 - Pumps

NOTE: The 2001B project prepares operators for the 2002 project which is to complete a building walkthrough plan. Students will use a Walkthrough Plan template to enter the data they assembled in the two project assignments for 2001 A & B. This includes:

- *Their building's EUI and ES Score*
- *Their scoping interview guide, and*
- *Their building operations map*

LEARNING OBJECTIVES

- Report the findings from completing the 2001A project assignment
- Explain the purpose of a building scoping interview guide
- Practice using O&M tune-up checklists
- Describe four common opportunities for improving building energy performance through a tune-up
- Prepare for a building walkthrough
- List the steps in the 2001B project assignment and your approach to completing it

OUTLINE

- 1) Introduction
 - a) Safety message
 - b) Agenda & learning objectives
- 2) Project Assignment Review
 - a) Level II project assignments overview
 - b) 2001A assignment review
 - i) ACTIVITY 1 – Reflection
 - ii) ACTIVITY 1 – Discussion
- 3) Scoping Report Action Plan – Interview
 - a) Example scoping presentations
 - b) Building scoping interview guide
 - c) ACTIVITY 2
- 4) Four Common Opportunities
 - a) Equipment scheduling
 - i) Lighting and plug loads
 - ii) HVAC
 - b) Sensor error
 - c) Simultaneous heating and cooling
 - i) Minimizing VAV reheat
 - ii) Discharge temperature reset
 - iii) Common mistakes
 - d) Outside air usage
- 5) ACTIVITY 3 – Using O&M Checklists
- 6) Scoping Report Action Plan
 - a) Operations map overview
 - b) ACTIVITY 4 – Map your building
- 7) Check Your Knowledge Questions 1-3
- 8) Building Walkthrough
 - a) Overview
 - b) ACTIVITY 5 – Walkthrough plan checklist
 - c) Videos – Building walkthrough series
 - d) Class discussion – your takeaways

- e) ACTIVITY 6 – Walkthrough findings
- 9) 2001B Project Assignment
- 10) 2005 Project Peer Exchange
 - a) Overview of final project
 - b) Presentation skills
 - i) Videos
 - ii) Discussion
- 11) 2001B Review and Test