

FEMP First Thursday Seminar Facilitator's Guide

Course 6: Operations, Maintenance, and Commissioning

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Course 6: Operations, Maintenance, and Commissioning

Purpose

The purpose of these seminars is to educate environmental and energy management professionals in the Federal sector in current topics within their scope of responsibilities. For more detailed information on these seminars, access www.femp.energy.gov/training.

There are six seminars, held on the First Thursday of each month, beginning in February, 2010. Each seminar is held at 1:30 EST/EDT. Additional seminars are being considered beginning in FY 2011.

Your Role as Facilitator

We greatly appreciate your help in serving as a site facilitator for the Department of Energy, Federal Energy Management Program (FEMP) First Thursday Seminars. You are very important to the success of these satellite broadcasts, and your commitment to the following roles is critical to the success of these training initiatives.

Specifically, your role is to:

Prior to the Seminar

- Post appropriate signs to notify potential attendees of the location, date, times and registration process for the training session. Appendix A of this document is a course announcement that you can print. An electronic version that can be sent by email can be accessed at http://www1.eere.energy.gov/femp/pdfs/fftflyer_o&m.pdf. Utilize your local process to “book” the facility where the broadcast will be viewed.
- Ensure that the viewing room is equipped to accommodate the registered participants as well as a few unregistered attendees.
- You will need a computer with internet access to handle last minute registration online.
- Print the sign-in Roster, also at http://www1.eere.energy.gov/femp/pdfs/roster_o&m.pdf and have each attendee sign in. Fax the Roster to 865-381-0554
- Print copies of the Learner Guide available at http://www1.eere.energy.gov/femp/pdfs/learnerguide_o&m.pdf
Provide copies of the Learner Guide to attendees who have not printed their own materials.
- Manage the technical aspects of the Broadcast. Technical contact numbers and emails may be printed as part of the facilitator information found at http://apps1.eere.energy.gov/femp/training/course_detail_live.cfm/CourseDatId=12

During the Seminar

- If possible have a printed registration list. If unregistered participants attend, ask them to register online immediately. To register new participants, access www.femp.energy.gov/training.
- Very important - have each attendees sign the Roster. Fax the Roster to 865-381-0554.
- Remind attendees that in order to receive a Course Completion certificate for the training, they must be registered, and they must complete a quiz and evaluation online after attending the training. Registration is critical. With thousands of Federal facilities potentially offering this broadcast, you are the only way for us to ensure that we have an accurate number of participants in the training.
- Greet program participants and provide them with a Learner Guide if they do not bring one with them to the Seminar.
- Make the participant feel comfortable. Indicate where restrooms can be found, help participant find seating, and handle any requirements for special accommodations.
- Encourage questions. During the live broadcast, handle questions by either dialing the toll free number 800-775-3728, faxing questions to 865-381-0554, or by sending an email to FTS@energyworkshops.org.
- For technical issues during the workshop, call 865-974-5069 for uplink trouble, 865-974-7569 for Video-conferencing/webcast trouble, 877 820 0305 for Federal networks trouble, or you may email ruleb@tds.net.

After the Seminar

- After the live broadcast, an e-mail containing the link to a seminar evaluation and open-book quiz will be sent to all confirmed participants. Upon completion of the evaluation and the open book quiz, you will be able to print a course completion certificate for your records.
- Either scan the Roster with participant signatures and email it to FTS@energyworkshops.org, or fax it to 865-381-0554 if you prefer.
- Following the viewing of the satellite broadcast, you are asked to conduct a 10 to 15 minute conversation with the participants about their learning. Your role will be to ask questions to stimulate thinking and discussion. The specific questions you will ask are included as Appendix B.

Course Announcement

Title: Operations, Maintenance, and Commissioning

Length of Course: 90 Minutes

Format: Live via satellite or streaming video on your desktop
Discussion format will allow opportunities to ask questions of the instructor

Date: Live on Thursday, July 1, 2010;
Archived for later viewing on demand

Course Description

This course will consider various aspects of Operations, Maintenance, and Commissioning including:

- The scope of O&M in today's Federal environment
- The relationship between O&M and commissioning
- Common barriers to effective O&M programs & how to overcome them
- Five performance indicators of O&M
- Effective operations, maintenance, engineering support, training and administration (OMETA)
- Life cycle implications in O&M best practices
- Differences in reactive, preventative, predictive, and reliability-centered maintenance
- Case studies and resources to assist you.

Audience

Advanced metering is designed for federal energy and environmental managers, and other energy and environmental professionals, who want to know more about effective operations and maintenance programs.

Learner Objectives

After completing this seminar, you will be able to:

1. Give an up-to-date definition of operations and maintenance today.
2. Explain how O&M fits into commissioning.
3. Discuss the benefits of a well run operations and maintenance program.
4. Explain some of the common barriers to O&M and how to overcome those barriers.
5. List 5 performance indicators for an effective O&M program.
6. Explain O.M.E.T.A. in terms of an complete O&M program.
7. Explain lifecycle implications in O&M from new component design to replacement.
8. Discuss the benefits of each of these types of maintenance: reactive, preventative, predictive, and reliability centered.
9. Locate resources to support you in O&M.

Instructors



Ray Pugh

Ray Pugh, Sr. Project Engineer, Pacific Northwest National Laboratory (PNNL), has more than 30 years of experience associated with facility operations and maintenance. In addition to serving in the Navy aboard a U.S. nuclear powered submarine, and working at DOE's nuclear plant in Washington State, Mr. Pugh has been involved in evaluating facility operations and maintenance programs while acting as a team member during many DOE facility assessments. Mr. Pugh's maintenance involvement at PNNL has included facility maintenance program evaluation and redesign using basic reliability-centered concepts and approaches.



Ab Ream

Ab Ream is an Energy Technology Program Specialist with the United States Department of Energy's Federal Energy Management Program. His program specialties cover operations and maintenance, energy audits, training, metering, commissioning, and measurement and verification. Mr. Ream has chaired the executive committee for GovEnergy, and now manages the Federal Operations and Maintenance (O&M) Working Group. Prior to his DOE experience, Mr. Ream was the Facilities Program Energy Manager for the U.S. Coast Guard. He has a B.S. in Engineering from the University of Pittsburgh and an M.S. in Technology Management from the University of Maryland.

Course Preparation

To prepare yourself for the seminar on advanced metering, please spend 30 minutes reviewing the information on metering on the FEMP website. The information can be accessed at

http://www1.eere.energy.gov/femp/program/operations_maintenance.html

Questions to initiate discussion following the seminar on Operations, Maintenance, and Commissioning

1. Do you have any new buildings planned for construction or building renovation projects? If so, have you considered them from a commissioning perspective? Explain.
2. In considering your current O&M activities, which of the operations, maintenance, engineering support, training, and administrative areas (OMETA) areas are your strengths? Weaknesses?
3. What are your greatest barriers to an effective O&M program and how are you addressing those barriers? (Barriers listed included, limited staff, lack of training, inadequate diagnostic equipment, missing technical documentation, budget, inadequate building/equipment metering, lack of management commitment, and poor morale.)
4. What metrics are you currently using to measure the effectiveness of your O&M program?
5. Give examples where your maintenance activities best reflect, reactive maintenance (corrective)? Preventive maintenance (PM)? Predictive maintenance (PDM)? Reliability centered maintenance (RCM)? What lessons have you learned that may be of use to others?