

**FEMP**  
FIRST THURSDAY  
**SEMIN@RS**

**Next Seminar: July 1, 2010**  
**1:30 - 3 p.m. Eastern**

**FREE ONLINE TRAINING SEMINARS**

From the Federal Energy Management Program  
**[www.femp.energy.gov/training](http://www.femp.energy.gov/training)**

**OPERATIONS, MAINTENANCE,  
and COMMISSIONING**

An overview of O&M best practices, requirements,  
and commissioning for existing buildings

***This course will consider various aspects of  
Operations and Maintenance (O&M) including:***

- The current state of O&M in today's Federal environment
- The relationship between O&M and commissioning
- Common barriers to effective O&M programs and how to overcome them
- O&M performance indicators
- 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.

***About the Experts:*****Ray Pugh, Sr.**

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 U. S. 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 O&M Working Group. Prior to his DOE experience, Mr. Ream was the Facilities Energy Program 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.

