

ENERGY

MON.-FRI., JUNE 23 - 27

Review Team at PPPL Lab-wide

Work Planning and Control System Review

WEDNESDAY, JUNE 25

PPPL Colloquium 4:15 p.m. • MBG Auditorium Cosmic Microwave Background (CMB)

Dr. Renee Hlozek, Princeton University

UPCOMING EVENTS

July 4

Lab Closed Independence Day Holiday

July 9-11

Theory and Simulation of Disruptions Workshop PPPL

August 8

Annual PPPL Bluefishing Trip



Review team to examine work planning and control at PPPL

VEEKL

June 23, 2014

By Jeanne Jackson DeVoe

PRINCETON PLASMA PHYSICS LABORATORY

A review team will be visiting PPPL all this week to assess the effectiveness of PPPL's work planning and control processes, a complex system that is designed to ensure that all work at the Laboratory is designed, planned and carried out in a safe, timely, and cost-effective manner.

The review team is made up of experts from both outside and inside PPPL who will evaluate documents and records and interview staff members about work planning and control at the Laboratory.

The review was organized by PPPL as part of its response to two Department of Energy "notable outcomes," or expectations for 2014 outlined in the DOE's contract with Princeton University for PPPL. One notable outcome stated that PPPL must show that "direct involvement of managers and supervisors in the field" results in safe work practices. The other stated that PPPL must demonstrate continued on page 2

Diversity and inclusion group begins work on diversity plan for PPPL

By Jeanne Jackson DeVoe

Diversity and Inclusion Working group at PPPL has begun looking at how PPPL can promote more diversity at PPPL and provide support to staff members, whether they're new to PPPL or long-time employees.

The goal of the group of about a dozen people is to come up with a diversity and inclusion plan by October that will offer concrete suggestions on ways PPPL can become more diverse and inclusive in several areas.

"I fully endorse the group's effort," said Adam Cohen, deputy director for operations. "I'm a very big proponent of a diverse work force as I believe it leads continued on page 3



Members of the Diversity and Inclusion Group, front row, left to right: Bill Davis, Shannon Greco, Marisol Ovalles, Michael Gonzalez, and Andrea Moten, the group's leader. Back row left to right: Luis Delgado-Aparicio, Barry Jedic, Jeanne Jackson DeVoe, Chandra Sanders, and Carol Ann Austin. Members not shown in the photo are: Neway Atnafu, Hans Schneider, Amitava Bhattacharjee, Hutch Neilson and Patricia Bruno.

page 1 of 4

Review Team

continued from page 1

"continual improvement of work planning and control processes," including providing the right work planning tools to workers and line managers.

"This is a way for us to evaluate our work planning and control system with outside eyes," said PPPL's Deputy Director for Operations Adam Cohen. "We always learn extremely valuable insights when we get outsiders to take a look."

Cohen said the DOE is concerned about work planning and control across the DOE complex. "I don't think they have any concern specifically at PPPL," he said. "I think we have a really robust system and we're going to learn some great ways to improve it."

A "fantastic" review team

Jim Graham, head of Best Practices at PPPL, has put together a "fantastic" review team, which he will lead, Cohen said. Al von Halle, head of Electrical Engineering at PPPL, will also be a team member; along with Geoffrey Gettelfinger, Physics Department manager at Princeton University and former PPPL engineer; Malgorzata "Margaret" Kouretas, a health physicist and alternate radiation safety officer at Picatinny Arsenal in Rockaway Township, N.J.; and Joseph Picker, research support group leader and work/project planning and control management system owner for R&D at Oak Ridge National Laboratory in Tennessee.

"The team has been put together by PPPL to make sure that we're on the right path to continue our improvements in work planning and control and to meet our notable outcomes," said Graham.

PPPL began enhancing its work planning system and controls about five years ago and the system has been strengthened to include more training and better oversight. This initiative was partly in response to lessons learned as the result of safety incidents over the past few years, Graham explained. Improving work planning and control is also "high on the DOE's list of things to accomplish," he said. The review team will look at several different areas of the Laboratory including the National Spherical Torus Experiment Upgrade (NSTX-U), repairs to the motor generators on D site, Facilities activities, operations at ESU and Health Physics, and smaller experiments in the L Wing and Science Education, Graham said.

The team will look at the work planning system as a whole but will likely focus primarily on the environmental and safety aspects of the system, he said.

The planning process is part of the integrated safety management (ISM) system at PPPL that incorporates safety throughout the work cycle. "The whole idea of ISM is if you plan your work and you analyze the risks and you control the risks prior to conducting the work, and you get feedback when you do the work such that if you keep learning and improving as you do the work, you will do the work safely," said Cohen.

But work planning and control also considers other aspects, particularly for larger and more complex projects, such as environmental management, communications, human resources, and many other areas, Cohen said.

Work planning is online

Tim Stevenson, head of the Project Management Office (PMO), which oversees projects throughout the Laboratory, is responsible for upgrading the work planning procedures, documents, and training materials at the Laboratory. Work planning information is available at the Office of Project Management site http://www-local. pppl.gov/ProjectMgmt/. "It's my job to provide project management oversight, establish the process and implement procedures, provide the training and coaching, and ensure compliance and consistency," Stevenson said.

Work hazard planning and control includes training and procedures for everyone at PPPL. At the most basic level, employees who work in offices simply receive the GET training that all employees receive. Work that is somewhat more hazardous such as shop activities, maintenance and repair jobs, might require a Job Hazard Analysis.

continued on page 3



Complex projects like the coil winding of the NSTX-U center stack must go through an extensive work planning and control process that maps out the design, work, schedule, costs and safety plan for the project, all of which must be approved before work begins and updated and approved while the work moves forward. Here technicians work on a coil winding machine that tightly winds two spools of copper conductors onto the center stack.

page 🔁 of 4

Diversity

continued from page 1

to diversity of thought, and that is key to solving problems and incorporating the most creative thinking into all aspects of our work."

PPPL's diversity initiative is partly a response to a Princeton University requirement for each department to come up with a three-year diversity plan with specific goals that came out of an extensive diversity report issued in September. Each University department will be held accountable for meeting those goals and the University has said it will reward progress and impose penalties for lack of progress. The deadline for the initial plan is the end of this year and departments are expected to put them in place by 2015.

Brainstorming ideas and gathering data

The Diversity and Inclusion Working Group is made up of representatives from most of the staffs at PPPL. Members began meeting in early May and have been brainstorming ideas and gathering data since that time. The group may gather more data by surveying staff or having small focus groups.

"I think it's a great group," said Andrea Moten, PPPL's employment manager, who is leading the group. "People are deeply engaged and I think there's enthusiasm and we have some great ideas going forward so right now it looks really good."

PPPL has an international staff that is very diverse in some ways but like other institutions, including Princeton University, there are few female physicists and engineers and few physicists and engineers who are African-American, Hispanic and Native American. And like other institutions, PPPL faces the challenge of trying to recruit diverse employees, Moten said. "The pool of candidates is smaller and everyone's competing for the top candidates," she said.

And while PPPL has done a good job recruiting a more diverse staff over the past few years, those numbers are relatively low because PPPL's staff is so stable. But that may change over the next five years or so as more employees at the Lab reach retirement age, Moten said.

Focus on five "pillars"

Moten has asked the Diversity and Inclusion group to focus on five "pillars:" recruitment and employment

brand; managing performance and developing people; diversity training and competency building; climate and inclusive culture; and engaging leaders and establishing progress measurements. Subcommittees within the group are coming up with ideas to address each of those categories.

The first category, management and recruitment, has to do with how PPPL can improve efforts to recruit a more diverse staff, particularly in the engineering and physics staff. It also has to do with PPPL's "brand" among potential employees. The brand addresses the question of, "What do we want to say about who we are and why people would want to come to work at PPPL?" Moten said.

The second category, managing performance and development, concerns "how we develop people to give them opportunities at the Laboratory," Moten explained.

Diversity training and competency building, the third category, is aimed at providing training that ensures everyone at the Lab is aware of the importance of diversity and inclusion.

The group is also focusing on "climate and inclusive culture," the fourth category, which looks at whether PPPL is "a welcoming culture."

The final pillar is "engaging leaders and establishing progress measurements," which focuses on making sure the Lab's managers support the diversity plan. It is also aimed at outlining specific goals that can be measured as the plan is carried out.

Moten said she encourages any staff members to speak to her or other members of the committee about any ideas they have regarding diversity at PPPL. "They should feel free to speak to anyone on the committee," she said.

Coming up with creative ideas to improve diversity and inclusion at PPPL would potentially benefit everyone at the Lab, Moten points out, whether it's providing more opportunities for career development or improving training and mentoring. The diversity plan, she said, "really helps us define how we're going to move forward."

Review Team

continued from page 2

Ongoing work that is considered very complex or risky, and involves multiple groups and steps, requires a written procedure and an approved Job Hazard Analysis. Smaller projects that involve new changes to systems or spaces require a work plan that includes the Job Hazards Analysis and other requirements.

Capital projects require a project execution plan that essentially breaks down the job into smaller jobs, each of which must have a work plan of its own.

A responsible line manager (RLM) oversees the project. The RLM appoints a COG (short for a cognizant individual), who is usually an engineer but could also be a physicist who is very familiar with the project. Both the RLM and COG must receive yearly training in work planning and control and training in any changes to the procedures. PPPL recently added a requirement, for example, that an RLM or the appropriate field supervisor must approve every Job Hazard Analysis.

"Under (Associate Director for Engineering and Infrastructure) Mike Williams and Tim Stevenson's leadership, we have really put together a very good system that's also flexible enough to be modified and expanded as needed," Cohen said.

Putting together an extensive work plan

The COG puts together an extensive work plan that not only gives details about the work but also includes information about scheduling, costs, a safety "We look forward to working with DOE to make improvements after we get the results from this review," Cohen said.

page 🐱 of 4

5 of 4

COLLOQUIUM

COSMIC MICROWAVE BACKGROUND (CMB)

ALAN ROBOCK, RUTGERS UNIVERSITY

Wednesday, June 25

4:15 p.m. (Coffee/Tea at 4 p.m.) • MBG Auditorium



Contact Andy Carpe ext. 2118 <u>acarpe@pppl.gov</u> Bob Tucker Jr. ext. 3190 <u>rltucker@pppl.gov</u> Site Protection Division•TIP•OF•THE•WEEK•



not need to touch a wood or vinyl home to start a fire. Just the heat from a gas grill or fire pit is enough to ignite it.

Always inspect your gas grill before using it. Check the hoses below your grill by applying a soapy water solution. Bubbles indicate a leaking hose. If you see bubbles, immediately disconnect the hoses, stop using the grill and have it serviced by a reputable company.

Never use a gas or charcoal grill inside any building, even a garage, no matter how open it is. When using a fire pit, make sure the pit itself is inside an enclosed container, and always have a garden hose ready in case of a fire.

For further information, please see the Safety Tip Sheet on Grilling Safety provided by the National Fire Protection Association (NFPA).

http://www.nfpa.org/safety-information/for-consumers/outdoors/grilling/grilling-safety-tips



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page 🕢 of 4