

PRINCETON PLASMA PHYSICS LABORATORY

MONDAY, MAY 21, 2012

At PPPL THIS WEEK

WEDNESDAY, MAY 23

U.S.-Japan Workshop on Magnetic Reconnection

All Day

Main Campus, Center for Theoretical Science

CLICK HERE FOR ABSTRACT

GFDL Events and Seminars

12 p.m. - 1 p.m. ♦ GFDL **Smagorinsky Seminar Room**

Andreas Schiller

www.gfdl.noaa.gov/events

(Gov't, University or 2 other forms of I.D. needed)

PPPL Colloquium

4:15 p.m.

M.B. Gottlieb Auditorium

Ocean Robotic Networks

Oscar Schofield (Rutgers University)

THURSDAY, MAY 24

U.S.-Japan Workshop on **Magnetic Reconnection**

All Day

Main Campus, Jadwin Hall Center for Theoretical Science

Special Theory Seminar 10:45 p.m. - Noon ♦ T169

FRIDAY, MAY 25

U.S.-Japan Workshop on Magnetic Reconnection

All Day

Main Campus, Jadwin Hall Center for Theoretical Science

DIII-D Science Meeting

1 p.m. \diamondsuit B-233

MONDAY, MAY 28



Making PPPL a Safer Place

By Patti Wieser

reafety is crucial for research to be successful, and safety is everyone's responsibility. That's the takeaway message from the Safety Stand-down at PPPL, held May 16 for all employees.

"We produce great science at PPPL, but this is only possible in a safe environment," said PPPL Director Stewart Prager. "The purpose of this meeting is to take one step in improving our safety."

Stew Smith, Dean for Research at Princeton University, stressed how important PPPL is to the University, describing the Laboratory as "fundamental" to Princeton's mission. During his talk, "The Importance of Safety in Operating a National Laboratory: Incidents and Lessons," Smith provided examples of accidents at two other nation- organized the event.



PPPL Director Stewart Prager addresses staff during the Safety Standdown on May 16. Facing the director is ESH&S Head Jerry Levine, who

al laboratories, noting common themes in how accidents occur. The examples were a propane tank explosion that destroyed a well house but resulted in no injuries due to the time of the explosion, and an electrical arc accident that left a contractor with serious burn injuries.

Smith and Adam Cohen, Deputy Director for Operations at PPPL, discussed the hierarchy of controls and the "Swiss cheese model" of accident causation, which essentially shows that a combination of several human and technical errors in a system or organization leads to accidents, rather than a single error in, for instance, supervision or unsafe acts. Barriers to accidents are compared to slices of cheese.

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Magnetic Reconnection Workshop at Princeton This Week

ore than 70 physicists from seven countries will gather this week at Princeton University for the 2012 U.S.-Japan Workshop on Magnetic Reconnection. The three-day conference will take place from Wednesday, May 23, through Friday, May 25, in the Princeton Center for Theoretical Science in Jadwin Hall on the main campus. Scheduled speakers include Princeton Plasma Physics Laboratory physicists Hantao Ji, who chairs the workshop, and Masaaki Yamada, who heads the Laboratory's Magnetic Reconnection Experiment.

"This meeting provides a place for people from different magnetic reconnection subfields to exchange new ideas and results," Ji said. Topics will include reconnection in solar plasmas, astrophysical systems and laboratory experiments, with a poster session scheduled to begin Wednesday at 4 p.m.

Safer Place

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One hole in a slice reflects a weakness; an accident only happens when the holes in all the slices line up. However, when the holes are smaller or do not line up, there is a strong defense against an accident occurring.

"There are a number of barriers between any individual and an accident," Cohen said. "We have to make sure each hole is looked at. We're looking at how we evaluate work, how we buy things, how we bring them in."

The morning-long meeting included a series of talks and PowerPoint presentations by PPPL, Princeton University, and DOE leaders in the Auditorium, with overflow in the Cafeteria, and was punctuated by questions from an engaged audience that filled both locations.

Maria Dikeakos, Manager of the Princeton Site Office, talked about safety and operational excellence. "You have a strong, deep culture and a passion for what you do," Dikeakos told staff, adding that employees want to protect all members of the PPPL community. She said everyone is responsible for the solution, and both managers and individuals are accountable.

Dikeakos said there is a high level of interest in the operations of PPPL, and that both adverse events and success stories have visibility. "We need to work on this together. We need to do great science," the Site Office Manager concluded, encouraging staff to become active participants in safety. "See something? Say something," she said.

Prager, PPPL's Jerry Levine, and PPPL's Mike Viola — who wore a bright "safety yellow" shirt and matching tie — discussed the March 8 safety incident in detail. In February, PPPL staff began digging holes on the site for the installation of concrete light pole footings to provide the foundation for new solar-powered lights. On March 8, two employees had to re-drill one hole to remove mud that had accumulated from weekend rains. They brought the skid steer machine — a loader — from a storage trailer to attach a drilling device called an auger.

While a ground man was connecting hydraulic hoses (and the skid steer engine was running), the operator in the cab stood up, opened the door to assist in the connection, accidentally hit the joy stick, commanding the skid steer arms





to rise suddenly, pinning him between the boom and the cab roof. He suffered a fractured shoulder blade and large laceration to his chest, but is expected to fully recover. Several safety interlocks were bypassed during the incident, and an investigation concluded that the accident was preventable.

"We were 'lucky' this time," Prager said. "We all need to absorb lessons from the incident to make PPPL a safer place for all."

What to do? Prager advised: Reassess your own work activities, be alert to your co-workers' activities and to activities as you walk through the Lab, and report any and all concerns, comments, and suggestions.

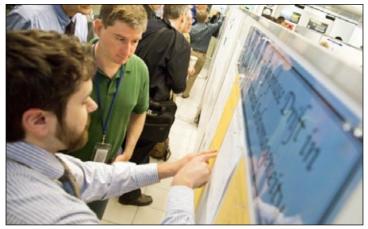
Mike Zarnstorff, Deputy Director for Research at PPPL, said, "We need to be proactive and observant about safety. We need to help keep everyone safe." He reiterated how safety is crucial for research success, noting how plasma physics involves many hazards, such as high voltages and power, high currents, magnetic fields, and forces, energetic particles, X-rays, and radiation, and large equipment. "We must control and mitigate hazards at all times," Zarnstorff said. "We must communicate and train for hazards, and train students."

Levine, who is Head of ESH&S at PPPL, wrapped up the meeting, giving a summary of the safety incidents, injuries, and illnesses that have occurred at PPPL since the last Safety Forum, held in 2010, and how we can improve safety by learning. The four incidents analyzed included cutting a lockout/tagout lock, a chilled water pipe rupture, an electric shock, and the skid steer accident. "In each case, the causes of these events were investigated to learn why they occurred and to prevent future events," said Levine, who organized the Stand-down.

"PPPL is a safe place to work," he concluded. "[But] hazardous energy can hurt us in many ways and places, and we must control it and protect ourselves from it."

Levine urged staff to know the safety rules for their work, and to follow those rules, adding, "If you're not sure, ask."

Poster Party



Graduate student Jeff Walker (above left) of West Virginia University discussed dusty plasmas with PPPL physicist Erik Gilson last week at a poster show held during the DOE Plasma Science Center annual meeting at the Laboratory. Below left, Hongyue Wang, a student from Beihang University in Beijing who is working with PPPL physicist Igor Kaganovich, discussed controlling the plasma potential profile in Hall thrusters with University of Michigan professor Mark Kushner, who directs the DOE Plasma Science Center.



D.C. Science Demos



Science Education Program Head Andrew Zwicker (left) was among PPPL staff and volunteers who provided handson science demos during the USA Science & Engineering Festival, held in Washington, D.C., in April to inspire the next generation of scientists and engineers.

Welcome! PPPL New Hires



Floribeth Chacon Janitor



Wenjun Deng Associate Research Physicist



Carlos R. Melendez
HVAC/Controls
Technician



Kristen Nicole Roberts
Property Admin.
Coordinator

COLLOOUIU

Ocean Robotic Networks

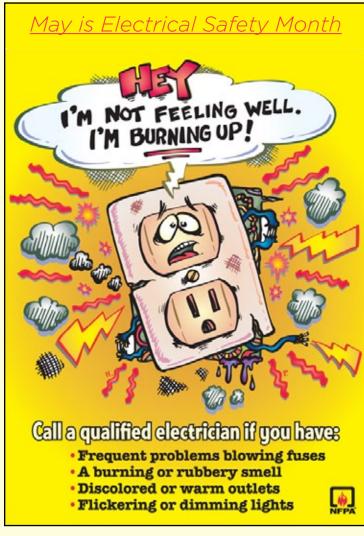
OSCAR SCHOFIELD

Rutgers University

Wednesday, May 23

4:15 p.m. (Coffee/Tea at 4 p.m.) M.B.G. Auditorium, Lyman Spitzer Building







BREAKFAST CONTINENTAL BREAKFAST LUNCH SNACK SERVICE

MONDAY MAY 21

TUESDAY MAY 22

WEDNESDAY MAY 23

THURSDAY MAY 24

FRIDAY MAY 25

CHEF'S FEATURE

COMMAND PERFORMANCE **EARLY RISER COUNTRY** KETTLE **GRILLE SPECIAL** DELI **SPECIAL**

PANINI



WITH GARLIC BREAD

Pigs in a Blanket

Homestyle Chicken Noodle

Double Turkey Bacon, Turkey Cheeseburger

The American - Turkey Bologna American, Lettuce, Tomato

Grilled Chicken, Pepper Jack, Tomato, Cran. Mayo



CHICKEN MARSALA W/ ROASTED POTATOES

Pork Roll, Egg and Cheese on Fresh Baked Croissant

Cream of Tomato

Mediterranean Chicken **Cheese Steak, Spiral Fries**

The Southern Reuben

Roasted Eggplant, Red Pepper, Onion, Provolone



CREATE YOUR OWN... TACO SALAD

The XL Spanish Omelet with Potatoes

Turkey Chili

Italian Sausage, Pepper and Onions Hoagie w/ Fries

Pepperoni, Ham, Provolone, Lettuce, Tomato, Oil, Vinegar

Turkey, Cheddar, Banana Peppers, Buffalo Sauce



SEAFOOD ALFREDO OVER PASTA

Breakfast Burrito

Cheesy Cauliflower

Crispy Chicken, Sauteed Onions, Mushrooms, Pepper Jack, Tomato and Chipotle Mayo Grilled Wrap w/ Fries

Roast Pork Loin, Provolone, Lettuce, Tomato and Mayo

Ham and 3 Cheese with **Tomato and Chipotle Mayo**



JAMAICAN CURRY CHICKEN STEW

Thick Sliced French Toast with Choice of Meat

Vegetarian 7 Bean

BBQ Pulled Pork Sandwich with Fries

Corned Beef Reuben

Roast Beef, Pepper Jack, Red Onion, Red Pepper, BBQ

MENU SUBJECT TO CHANGE WITHOUT NOTICE

CLICK HERE FOR A PRINTABLE WEEKLY MENU

Editor: Patti Wieser • Copy Editor/Graphic Designer: Gregory Czechowicz Photographer: Elle Starkman • Webmaster: Chris Cane

PPPL WEEKLY is published by the PPPL Office of Communications on Mondays throughout the year except for holidays. Deadline for calendar item submissions is noon on Thursday. Other stories should be submitted no later than noon on Wednesday. Send to: pwieser@pppl.gov ◆ Comments: commteam@pppl.gov ◆ PPPL WEEKLY is archived on the web at: http://www.pppl.gov/ppplweekly.cfm