

At PPPL THIS WEEK

JULY 13-JULY 15

Annual Theory and Simulations of Disruptions in Tokamaks Workshop

FRIDAY, JULY 17

Open Public Tour
10 a.m.

Email tours@pppl.gov

Lab Management Review

UPCOMING

WEDNESDAY, JULY 22

Suspect & Counterfeit Items Awareness Training

MBG Auditorium

Introductory Class 8:30-11:30 a.m.

Refresher Class 1-3 p.m.

Contact Frank Malinowski,
fmalinow@pppl.gov, ext. 2203

TUESDAY, AUGUST 4

Small Group Safety Training

10:30 a.m. to 12 p.m. ♦ MBG Auditorium

FRIDAY, AUGUST 7

Open Public Tour
10 a.m.

Email tours@pppl.gov

SUMMER SCHEDULE FOR PPPL WEEKLY

The PPPL Weekly has moved to a bimonthly schedule during the summer. The next issue will be on July 27.

INSIDE

Payroll Report **2**

Bluefishing Trip **2**

Stellarator Study **3**

Retirees **4**

Boy Scout Fair **4**

SOS Box **5**

Smoking Policy **6**

Menu **7**

PPPL launches study for a world-leading U.S. stellarator program

By John Greenwald

A team of physicists and engineers at PPPL has launched a study of possible missions and designs for a world-leading U.S. stellarator program that would include a major experimental facility. The study, supported by a \$100,000 Laboratory Directed Research & Development (LDRD) grant for the current fiscal year, will detail the need for such a program and describe options for carrying it out. “Stellarators have many attractive features and it’s natural to examine what a mission could be,” said Hutch Neilson, head of the Advanced Projects Department and leader of the study team.



Hutch Neilson

Stellarators confine the hot, charged plasma gas that fuels fusion reactions in twisty — or 3D — magnetic fields, compared with the symmetrical — or 2D — fields that the more widely used tokamaks create.

The twisty configuration enables stellarators to control the plasma with no need for the current that tokamaks must induce in the gas to complete the magnetic field. Stellarator plasmas thus run little risk of disrupting, as can happen in tokamaks, causing the internal current to abruptly shut off.

[continued on page 3](#)



Meet PPPL

This PPPL image is featured in the July issue of the DOE Sustainability Spotlight that highlights a description of the new [National Labs Roadshow](#), a virtual journey to all 17 laboratories supported by the DOE’s Office of Science. The campaign aims to increase awareness of the people, places and science of the national laboratories.

Why the Lab needs you to submit your timesheets by the deadline

It's important for biweekly, hourly and monthly employees to submit their timesheets on time in order for PPPL management and the Department of Energy to get an accurate accounting of costs for departments and projects. Labor costs represent 60 percent of the Laboratory's total costs and timesheet data is needed in order to keep accurate information. The Laboratory has two separate systems for timesheets: the biweekly/hourly payroll uses the Princeton University time collection system, and the monthly payroll, is processed through a PPPL-developed system.

Biweekly and hourly employees

Timesheets are due every two weeks by 10 a.m. on the Monday after a pay period ends. After employees have completed their timesheets, supervisors have one hour until 11 a.m. that day to review them for any errors and approve them. Payroll staff then reviews the timesheets again before the file is retrieved by Princeton University. Employees cannot get paid if their timesheets are not approved by PPPL payroll.

Monthly employees

Monthly timesheets are due on the 21st of each month and cover the period from the 21st of the previous month to the 20th. They must also be reviewed and approved by a supervisor by the same deadline. This ensures that labor costs are charged to the proper accounts.

Payroll staff members must record PPPL's labor costs in a timely manner and can only do so if staff and supervisors submit their timesheets on time. When staff members and supervisors do not submit their timesheets, payroll staff must follow up with them. This is an ongoing problem that takes staff members away from other payroll responsibilities. In May, for example, 60 monthly employees did not turn in timesheets on time. If a staff member consistently fails to submit timesheets, disciplinary action may be recommended for that employee.

It is an important part of all employees' jobs to complete their timesheets by the due date as accurately as possible. With the summer upon us, it's particularly important that employees fill out timesheets before leaving the office for a holiday, vacation or business trip. This will allow supervisors and payroll staff to process the timesheets. The next biweekly/hourly and monthly timesheets are both due this month on July 20.

The payroll staff greatly appreciates your efforts to complete your timesheet as accurately as possible by the deadline. Please contact Anthony Bleach, ableach@pppl.gov, ext. 3621; Penny Neuman, pneuman@pppl.gov, ext. 2500; or Janice Cheslock, jchesloc@pppl.gov, ext. 3486 if you have any questions. 📧

2015 Annual PPPL Bluefishing Trip Aboard the 80' Suzie Girl

Date: Friday August 21st 2015

Departure: 5 p.m. SHARP!!!

Location: Belmar Marina Hwy. 35, Belmar, NJ 07719

Cost: \$80 Per person ALL INCLUSIVE. Cost includes everything—rods, bait, fish cleaning, food, beverages, prizes, etc. All you need to do is show up!



**Money due by Friday, July 25.
NO REFUNDS**

Contact Andy Carpe, ext. 2118, acarpe@pppl.gov, or Bob Tucker Jr., ext. 3190, rltucker@pppl.gov.

Stellarator study

continued from page 1

The study could set the stage for development of a new U.S. stellarator program. Stellarators had been the main line of fusion development in the 1950s and early 1960s before taking a back seat to tokamaks, whose symmetrical, doughnut-shaped magnetic field geometry produced good plasma confinement and proved easier to create. But breakthroughs in computing and physics understanding have revitalized interest in the twisty designs. Construction of the most recent U.S. stellarator, the National Compact Stellarator Experiment (NCSX) — now called QUASAR — was halted at PPPL in 2008 when costs exceeded projections after some 80 percent of the machine's components had been built or procured.

Stellarators remain crucial to the fusion programs in Germany and Japan. PPPL leads U.S. participation in Germany's new Wendelstein 7-X, an advanced stellarator that will begin operating this year, and the Laboratory has collaborated in research on Japan's Large Helical Device.


The new study will address key questions regarding the mission and need for a U.S. stellarator program. Among them:

- What high-level fusion-development issues would motivate a substantial U.S. effort in stellarators?
- What should a U.S. stellarator program focus on in light of expected research needs for fusion energy science in the 2020s and 2030s?

- What should be the timeline for such a program?
- How do facility options —including QUASAR — compare with one another in terms of scientific value, world leadership potential, cost and schedule?

Members of the PPPL team have begun brainstorming such questions and examining a range of stellarator concepts. "The focus will not be on Quasar, since it's a well-understood and feasible facility that can serve as a reference for our comparisons," Neilson said. "Quasar is not ruled out, but we need to challenge ourselves to think more broadly about the best way to create a world-leading stellarator program."

Plans call for the team to prepare a report built around questions and answers about key mission issues. Possible steps after that could include a national workshop to identify the best missions to consider, followed by creation of an expanded national team that would scope out design concepts and other initiatives for fulfilling the missions.

Looking ahead, Neilson said it could take some 10 years to design and build a new U.S. stellarator and get it up and running. Such a machine could require several more years to reach peak scientific productivity, he added, and showcase its full capabilities. 

Suspect & counterfeit items awareness training

There will be a three-hour hands-on suspect and counterfeit awareness training on how to identify a variety of suspect items on Wednesday, July 22, with an introductory class from 8:30 to 11:30 a.m. and a refresher class from 1 p.m. to 3 p.m.

This training session is mandatory for the following personnel and must be renewed every three years:

- QA/QC Staff
- Buyers & Subcontract Administrators
- Receiving Personnel
- System Engineers and Maintenance Technicians
- Personnel directly involved in installations
- Personnel involved in ordering or receiving hardware, including electrical items

This includes subcontractors working on site!

Please contact Frank Malinowski, fmalinow@pppl.gov, ext. 2203, to register.

PPPL bids a fond farewell to retiring employees!



EUGENE BAKER
Senior engineer
Engineering
31 YEARS



JIM MACTAGGART
Senior programmer
Information Technology
31 YEARS

Volunteers needed for Boy Scout STEM Merit Badge Fair



PPPL will host its second annual STEM Merit Badge fair for some 350 Boy Scouts from Central New Jersey on Oct. 3. The event will feature hands-on activities to help Boy Scouts earn badges in one or two of 17 different subjects including robotics, engineering, electronics, sustainability, fire safety, and nuclear science.

Organizers need numerous scientists, engineers, and subject matter experts to volunteer to work on lesson plans for specific merit badges and to serve as technical experts at the event itself. The group also needs numerous general volunteers to help with traffic control, check-in, refreshments, and other logistics.

Please register as soon as possible to volunteer. We are looking for PPPL and Princeton scientists, engineers and subject matter experts to work in partnership with registered merit

badge counselors to develop a lesson plan and activities for the specific merit badges selected. Counselors and Princeton experts will jointly identify the prerequisite requirements for Scouts to complete in advance, and will specify the demonstrations and/or hands-on activities to be completed at the Fair so that Scouts can earn the selected badges on October 3rd. When PPPL first hosted this event in 2013, approximately 350 Boy Scouts participated in 15 different subject areas, one of which is shown above. We are also in need of general volunteers to help with traffic control, check-in, refreshments and other event logistics. Please use the link below to register as a volunteer and indicate your subject area preferences.

The 2015 STEM Merit Badge Fair volunteer sign-up form is online at <http://tinyurl.com/PPPLSTEM-2015>, so that organizers can begin registering Scouts for the event.

Contact Rob Sheneman, rshenema@pppl.gov, with any questions.



Physicist Dick Majeski, second from right, was among 45 bike riders who participated in this year's 400-mile Harbor House Ride for New Beginnings to raise funds to help runaway and homeless youths. The five-day June ride ran from Barnegat, New Jersey, to Chincoteague, Virginia, then to Vineland and Toms River in the Garden State on the return leg. The event marked Majeski's 16th ride for Harbor House, which operates an emergency youth shelter in Toms River and provides counseling for at-risk youths and their families. (Photo courtesy of Harbor House)

The Safety Or Suggestion Box

The Safety Or Suggestion Box (SOS Box) is a way to increase workplace safety in a simple yet vital manner. Employees may submit suggestions, comments, near misses, hazards, or similar suggestions or praises directly to the ES&H department via the Employee Information & Services Page (see link to SOS Box below). The ES&H department uses the submittals to help prevent hazards or injuries, and

it brings attention to practices that may need to be improved. During the upcoming quarter (July-September 2015), everyone is encouraged to utilize this reporting mode. Everyone who submits a valid actionable safety post (specific enough to fix, with the submitter's name included) to ES&H via the SOS Box will be entered into a drawing for a chance to win a \$20 gift certificate to the Plasma Hutch!

http://www-local.pppl.gov/eshis/Drop_box_link.html

People Soft unavailable July 16 to early July 21

Due to a planned upgrade, PeopleSoft Self Service will be unavailable from 3 a.m. Thursday, July 16 until 6 a.m. Tuesday, July 21.

PPPL Smoking Policy

In an effort to improve indoor air quality, and in accordance with the laws of the State of New Jersey that regulate smoking in public places and in the workplace, the Laboratory provides a Smoke-Free Environment. Smoking is not permissible in any Laboratory building, office, meeting room, common area, near fresh air intakes, laboratory vehicles, or **within 25 feet of any building entrance**. However, smoking is permissible in unrestricted and marked outdoor areas on the PPPL campus.

Signs stating **“THIS IS A NON-SMOKING FACILITY. NO SMOKING WITHIN 25 FEET OF BUILDING ENTRANCE”** are at the main entrances to all buildings as a reminder of this policy. **Large outdoor ashtrays are available in appropriate, smoking permissible areas adjacent to building entrances.**





BREAKFAST 7 a.m. • 10 a.m.
CONTINENTAL BREAKFAST 10 a.m. • 11:30 a.m.
LUNCH 11:30 a.m. • 1:30 p.m.
SNACK SERVICE until 2:30 p.m.

	Monday July 13	Tuesday July 14	Wednesday July 15	Thursday July 16	Friday July 17
COMMAND PERFORMANCE Chef's Feature	Chicken Parmesan served with Pasta & Garlic Bread	Roasted Vegetables served over Polenta	COMMAND PERFORMANCE Create Your Own Burrito	Grilled Pork Chop with Smashed Potatoes & Chimichurri Sauce	OUTDOOR BBQ Cowboy Baked Beans with Beef & Franks, BBQ Chicken, Corn, Cornbread, Texas Peach Cobbler, Slaw & Beverage
Early Riser	Ham & Cheese Omelet with Home Fries	Asparagus & Cheese Omelet with Home Fries	Corned Beef Hash & 2 Eggs	Sausage Cheddar Bake	Strawberry French Toast
Country Kettle	White Bean with Ham	Gazpacho	Gumbo	Tomato & Spinach with Tortellini	Italian Sausage Bean
Grille Special	Big Mac served with Fries	Pepperoni & Mushroom Cheesesteak	Popcorn Chicken Po' Boy	Pulled BBQ Chicken	Tofu Tacos
Deli Special	Portobello Mushroom on a Pretzel Bun with Fresh Mozzarella, Tomato & Pesto Mayonnaise	3-Foot Italian Hoagie	Grilled Ham, Peppers & Pineapple with Dijon Mustard on Ciabatta Bread	Seafood Salad Croissant	Breaded Chicken Cutlet with Salami, Fresh Mozzarella and Pesto Mayo
Panini	Pulled BBQ Pork on a Soft Bun with Slaw	Cheesy Shrimp & Grits	Country Fried Chicken Breast on a Soft Roll with Lettuce, Tomato & Mayo	Flatbread with Eggplant, Feta, Red Onion, Tomato and Tzatziki Sauce	Greek Gyro Wrap

	Monday July 20	Tuesday July 21	Wednesday July 22	Thursday July 23	Friday July 24
COMMAND PERFORMANCE Chef's Feature	Chicken Marsala served with Egg Noodles & Vegetable	Eggplant Parmesan served with Pasta & Garlic Bread	CELEBRITY CHEF CHARLIE TROTTER Seared Lamb Chops, Saffron Risotto, And Roasted Baby Carrots & Asparagus	Carved Roast Beef with Gravy, Mashed Potatoes & Vegetable	Seafood Pasta Fra Diavolo
Early Riser	Mushroom, Onion & Mozzarella Omelet with Home Fries	Banana Pancakes	Corn Beef Hash & 2 Eggs	Pineapple Coconut Pancakes with Ham Steak	Veggie Egg Burrito
Country Kettle	Broccoli Cheddar	Chicken Zucchini with Shell Pasta	Vegetable Lentil	Beef Barley	Split Pea
Grille Special	Handmade 8 oz. Burger with Choice of Cheese & Potato Salad	Italian Hot Dog	Tuna Melt on Rye	Bacon BBQ Chicken Cheesesteak	Grilled Peanut Butter & Banana on Texas Toast
Deli Special	Veggie Burger with the Works	Liverwurst on Rye	Ham, Turkey & Cheese Club Sandwich with Bacon	Krabby Kake Sandwich	Chicken Cutlet with Fresh Mozzarella, Bruschetta and Pesto on Ciabatta Bread
Panini	Salami, Capicola, Ham & Provolone on French Bread with Tomato & Pesto Mayo	Tilapia Tacos with Pickled Cabbage and Pico de Gallo	Chicken Mushroom Quesadilla	Veggie Quesadilla	Philly Cheesesteak Wrap Panini

MENU SUBJECT TO CHANGE WITHOUT NOTICE

Menu Item is in keeping with American Heart Association (AHA) and U.S. Department of Agriculture (USDA) guidelines.

VEGETARIAN OPTION

WEEKLY

Editor: **Jeanne Jackson DeVoe** ♦ Layout and graphic design: **Kyle Palmer**
Photography: **Elle Starkman** ♦ Science Editor: **John Greenwald** ♦ Webmaster: **Chris Cane**

The 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 WEDNESDAY. Other stories should be submitted no later than noon on TUESDAY.

Comments: commteam@pppl.gov ♦ PPPL WEEKLY is archived on the web at: <http://w3.pppl.gov/communications/weekly/>.