

# Hotline

The Princeton Plasma Physics Laboratory is a United States Department of Energy Facility

## Researchers Test Tritium Measuring System

This summer, researchers from PPPL and Japan are trying out a new system for measuring — and accounting for — tritium left on the graphite tiles of the Tokamak Fusion Test Reactor (TFTR).

“Quantifying the amount of tritium hung up on the tiles is really important research work that will affect any future fusion reactor. We used very little tritium on TFTR, but for a large reactor where you burn tritium all the time, the build-up rate is much greater, and this is a major challenge,” said PPPL International Off-site Research Head Ken Young.

The collaboration is through an agreement between PPPL and the Japan Atomic Energy Research Institute (JAERI) called AN-NEX 4. In March, a PPPL team completed the development of the unique instrumentation to perform the tritium measurements.

“There were two main components to the project that concluded this spring. One was to build a manipulator that would bring equipment into the TFTR vacuum vessel so tritium measurements

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Members of the PPPL-Japanese team inspect the tritium analysis equipment at PPPL before turning it over to the Japanese. From left are PPPL's Ken Young, JAERI's Akio Yamada and Toshihiko Yamanishi, PPPL's Charles Gentile, and Makoto Koinuma, of the Sumitomo Corporation.

## Lab Garneres Two Diversity Awards from DOE



PPPL Diversity Officer Pamela Lucas (middle) and PPPL Chair of the Director's Advisory Committee on Women Patti Wieser (left) present two diversity awards from the U.S. Department of Energy to PPPL Director Robert Goldston. Lucas and Wieser attended the DOE Diversity Conference and awards ceremony in Oakland, California.

In recognition of its progress in building sound and notable diversity programs and for implementing science education programs, PPPL received two Equal Employment Opportunity (EEO)/Diversity awards from the U.S. Department of Energy (DOE) on May 29.

On behalf of the Laboratory, PPPL Diversity Officer Pamela Lucas accepted the Turquoise Award for Commitment in EEO/Diversity and the EEO/Diversity Best Practices Award during the DOE's 1998 Diversity Conference in Oakland, California. In addition to Lucas, PPPL's Patti Wieser attended the gathering, which was titled “Diversity: One America in the New Millennium.”

“This is a great honor for the Laboratory to receive two awards for our diversity efforts. We have been through many changes during the past year, including a significant downsizing and a reorganization. Throughout these changes we have remained strongly committed to

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# Murphy-LaMarche Named Executive of the Year

**S**usan Murphy-LaMarche, Deputy Head of Human Resources at PPPL, is the 1998 "Executive of the Year" for the Mercer Chapter of Professional Secretaries International (PSI).

Murphy-LaMarche received the award at PSI's luncheon on April 20. In the nomination form, her secretary, Sonja Patterson, described her as "hardworking" and as having "a deep concern for employees."

"My boss has high standards, strong leadership skills, is highly motivated, and hardworking," said Patterson, who began working for Murphy-LaMarche seven years ago. "She also has the respect and trust of all employees. Employees can actually sit down and talk (with Sue) and know their concerns will be handled in a confidential manner."

Patterson also noted that Murphy-LaMarche "responds to career development not only for me, but for all employees, including upper management. She gave me room to grow professionally and to attend workshops and seminars. In fact, because of the encouragement, I have gone back to school."

During last year's downsizing at the Laboratory, Murphy-LaMarche oversaw the outplacement services that included training workshops, job development, and counseling. "We have many long-term employees here and I felt we had the responsibility to help those people

with their next careers. We wanted to provide an environment that would encourage these dedicated employees with unique skills to go on making a contribution somewhere else."

After coming to the Lab in 1983, Murphy-LaMarche became supervisor of the Computer Operations Center for the Laboratory's TFTR experiment. In 1991, she became Head of Training and served in that capacity for five years before becoming Deputy Head of Human Resources. Murphy-LaMarche, a former teacher, is a 1972 recipient of a master's degree in education from Hofstra University on Long Island, New York.

Upon receiving the PSI award, Murphy-LaMarche said, "Having been a teacher, I realize the importance of continuing to educate ourselves and our staffs. Seeing a staff member make the connection between education and moving forward is especially rewarding. People at the Lab mean a lot to me and it is nice to be recognized." ●



*Susan Murphy-LaMarche*

## HOTLINE

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## Donations Given to Womanspace



*The recent Director's Advisory Committee on Women (DACW) drive for Womanspace at the Lab was a success. Donations filled three large boxes. In addition, the drive netted a gift basket for children and a generous cash contribution. DACW Co-Chair Mary Ann Brown (left), who organized the drive, presented the donations to Womanspace Executive Director Pat Hart during a luncheon on April 20 for Professional Secretaries International, Mercer Chapter. Thanks go to everyone who contributed to the drive!*

## System

Continued from page 1

could be taken in situ. The other was to develop an oven and its associated vacuum equipment that connects to our tritium handling system so we could actually heat up tiles taken from TFTR and analyze tritium concentration in those tiles," said Young.

In June, researchers will begin taking measurements and evaluating the way tritium is held up in the tiles, as well as do other tritium-related activities.

Japan is interested in the project because it plans to take a role in the next step of a deuterium-tritium burning machine. Young noted that future tokamaks will use a large amount of tritium and must account for it, increasing

the need to better understand the behavior of tritium in fusion machines. "How much tritium the graphite tiles retain will be a serious issue on the International Thermonuclear Experimental Reactor because there will be a limited inventory of tritium allowed on-site," said Young.

The ANNEX 4 provides the team with \$500,000 a year for about three years, with matching funds through the Department of Energy. The project will take place primarily at PPPL, with JAERI representatives periodically working at the Lab.

The PPPL team includes Bill Blanchard, Carl Bunting, Andy Carpe, Lloyd Ciebiera, Charles Gentile, Steve Jurcznski, Steve Langish, Dennis Mueller, Tom Provost, Denis Shaltis, Bob Simmons, Charles Skinner, Al von Halle, Dick Yager, and Ken Young. ●

## Diversity

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diversity and to promoting an inclusive work environment in which all employees are respected," said PPPL Director Robert Goldston.

Added Lucas, "Winning both of these awards at this particular time is significant. In spite of the budget uncertainties we've experienced recently, PPPL's commitment to the principles reflected by these awards did not waver. This would not have been possible without the strong support of the PPPL leadership and the efforts of the Human Resources Division, the Director's Minority Advisory Committee, the Director's Advisory Committee on Women, and the Diversity Working Group."

The Turquoise Award recognizes PPPL's "commitment and implementation of EEO/Diversity practices and the progress demonstrated in building sound and notable diversity programs." Upon receiving the citation, Lucas said, "The Turquoise Award demonstrates that little can become much in the hands of capable, committed individuals and this provides PPPL with a strong base upon which to continue our efforts."

Last year, the Department of Energy established the National DOE and Contractors EEO and Diversity awards to recognize organizations that have advanced the cause of diversity in the workplace and have provided a positive role model for other facilities and programs within the department. The program, sponsored by the DOE's Office of Economic Impact and Diversity, is open to all DOE federal organizations, DOE laboratories, and managing and operating contractors. The award categories include the Turquoise Award for commitment, the Roadrunner Award for progress, and the Zia Award for excellence. This year there were two recipients of the Turquoise and two of the Roadrunner awards. In addition, several labo-

ratories and contractors received "best practices" awards.

PPPL garnered the EEO/Diversity Best Practices Award for "implementing science education programs, including a 'Science over Supper' program, in which its scientists team with area teachers to explore science concepts taught in the classroom, and for its 'Research Enrichment Program' that targets minority students interested in careers in science."

"The 'Best Practices' Award for our efforts in Science Education was really a surprise. The entire Science Education Program and the PPPL staff who lead workshops for 'Science Over Supper' and those who serve as mentors to high school students in the Princeton Research Enrichment Program should be commended for their dedication and commitment to making the resources of the Laboratory available to all members of the community," commented Lucas, who is also a Science Education Program Leader at the Laboratory. ●



During the awards presentation at the DOE's 1998 Diversity Conference are (from left) Deputy Director of the DOE Office of Civil Rights William Garrett, PPPL's Pamela Lucas, Director of the DOE Office of Civil Rights Stanley Suyat, and PPPL's Patti Wieser.



# Pollution Prevention Day Draws Area Students

**M**ore than 125 students from area schools participated in hands-on science demonstrations, watched some of their classmates receive awards for pollution prevention posters, and toured TFTR during Pollution Prevention Awareness Day at PPPL last month.

The Laboratory hosted the youngsters, as well as about a dozen children of staff who came to PPPL for Take Our Daughters to Work Day. The day featured a talk by Stony Brook Millstone Watershed Education Director Jeff Hoagland, recycling-related exhibits, and the presentation of awards to fifteen students for entries in the Laboratory's Pollution Prevention Poster Contest. The winning posters were among 620 created for the contest, many of which were displayed in PPPL's Lobby. PPPL's Facilities and Environmental Management Division, Director's Advisory Committee on Women, and Science Education Program sponsored the poster contest and activities.

## First Place

First place poster contest winner Stefanie Wittkop, of Timberlane Middle School in Hopewell, won a \$400 gift certificate to Halters Cycle and Fitness in South Brunswick. Justine Duffy and Todd Pagurek, of Corpus Christi School in Willingboro, garnered the second and third place prizes, respectively. Justine received a \$100 gift certificate to a local bookstore and Todd won two tickets to Six Flags Great Adventure, as well as a \$50 gift certificate to



PPPL's David Gates demonstrates the plasma generator to the young visitors.

Sam's Club in West Windsor. In addition, Union Camp Corporation contributed a \$50 U.S. Savings Bond as a prize, which went to Benjamin Nelson, of Timberlane Middle School.

Honorable mention prizes went to Tyreece Johnson, of Antheil Elementary School in Ewing; Robin Barnett and Sara Ortiz of Corpus Christi School; Megan Finley, daughter of a PPPL staffer; Stephanie Torrey, of Grace N. Rogers School in East Windsor; Megan Penney, of Timberlane Middle School; Mallory Ottinger, Adam Savitsky, and Abby M. Schlamowitz, of Toll Gate Grammar School in Pennington; Sherri Zhou, of Upper Elementary School in West Windsor; and Sasha Rosario, of Woodrow Wilson Elementary School in Trenton.

For the honorable mention prizes, the Spirit of Philadelphia donated a lunch cruise for four, the Circle Line Corporation of New York contributed four tickets for a sightseeing cruise, Sam's Club donated a \$50 gift certificate, Princeton University's President's Standing Committee on the Status of Women donated a T-shirt, Six Flags Great Adventure gave two tickets to the park, Dial Electronics donated a \$25 gift certificate, Express Navigation, Inc. donated two \$20 gift certificates for whale watching, the Liberty Science Center contributed four tickets to the museum, PPPL's Director's Advisory Committee on Women donated 10 biographies for young readers, the Robert J. Novins Planetarium at Ocean County College gave four tickets to the planetarium, and Borders Book Store donated the "Handy Science Answer Book."

Exhibitors during Pollution Prevention Awareness Day included Union Camp, FMC, Long View Waste Systems, Staples/Philadelphia Stationers, Stony Brook Millstone Watershed Association, Farmstead Asset Management, and Mercer County Improvement Authority.

In addition to the activities for youngsters, the Laboratory hosted two programs for adults featuring speakers Kyra Hoffman, Daniel Caraccio, PPPL Deputy Director Richard Hawryluk, Richard Wetherald, George Hawkins, and PPPL Director Rob Goldston. ●



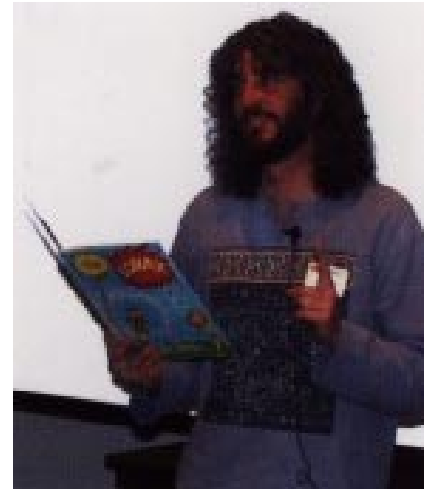
PPPL Director Rob Goldston presents an award to a poster contest winner.



Above, Diane Carroll, Head of PPPL's Science Education Program, demonstrates to students the effects of magnetic fields on plasma in an uncoated fluorescent light bulb during Pollution Prevention Awareness Day. Below, PPPL's Andrew Post Zwicker demonstrates turbulence with a flowing bubble apparatus.



Above, PPPL's Thomas McGeachen leads a tour group.



Guest speaker Jeff Hoagland presents a talk to the youngsters.

## Thank You

Pollution Prevention Awareness Week organizers Margaret King and Thomas McGeachen would like to thank the following for their support and efforts for the events:

J. W. Anderson  
 Dori Barnes  
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 Cheryl Such  
 Molly Tompkins  
 Al von Halle  
 Patti Wieser  
 Andrew Post Zwicker  
 Director's Advisory  
 Committee on Women  
 Director's Minority  
 Advisory Committee

# PPPL Participates in Plasma Science Expo

Photo by James Morgan



PPPL's scientific demonstrations drew a crowd at the Plasma Science Expo at George Washington University in Washington, D.C. The two-day April event attracted hundreds of students, teachers, and members of the public. PPPL'ers Diane Carroll, Anthony Contino, John DeLooper, Pamela Lucas, James Morgan, and Andrew Post Zwicker represented the Laboratory at the Expo. In front of the fusion display at left, Post Zwicker discusses science to a group of students. Contino, near the PPPL display at right, demonstrates an electromagnetic arm wrestling machine.

## PPPL Hosts Booth at Communiversality Celebration



Photos by Gregg Wielage



In April, PPPL participated in Communiversality, an annual springtime celebration that joins Princeton University with the community of Princeton. In photo at far left, PPPL Associate Director for External Affairs John DeLooper (left) demonstrates turbulence with a flowing bubble apparatus to the sons of PPPL Deputy Director Richard Hawryluk as Hawryluk (in sunglasses) watches. In the other photo, Information Services Head Anthony DeMeo fields questions about the Lab.



# DACW Meeting Brings Women of the Lab Together



*Above, Joanne Bianco gathers handouts for the meeting. At top right (from left) Joanne Bianco, Virginia Finley, Dolores Bergmann, and Sharon Warkala form a discussion group during the presentation.*



**T**he Director's Advisory Committee on Women (DACW) Open Meeting brought together about forty Lab women and supervisors to discuss issues on May 4 in the MBG Auditorium. The Director of the Laboratory and the DACW host the annual event to provide an open forum for the women of PPPL.

Guest speaker Carol Kivler of Kivler Communications, who was enthusiastically received during last year's DACW Open Meeting, gave a presentation about "Developing Personal Resiliency to Change and Transition." PPPL Director Rob Goldston and DACW Chairperson Patti Wieser offered opening remarks prior to Kivler's talk, which was followed by an informal discussion and a chance for women to "network." ●



*Above, camaraderie abounds among attendees. From left are speaker Carol Kivler and PPPL'ers Dolores Bergmann, Virginia Finley, Molly Tompkins, and Sara Flohr.*



*Meeting participants jot down a list of changes during Carol Kivler's presentation about change and transition. From left are Marie Iseicz, Maria Pueyo, Joane Bianco, Virginia Finley, and Dolores Bergmann.*



*Guest speaker Carol Kivler discusses "Developing Personal Resiliency to Change and Transition" during the DACW Open Meeting.*

# PPPL'ers Honored for "Making a Difference"



*The recipients of the President's Standing Committee on the Status of Women honorees are, from left, Ronald Davidson, Pamela Lucas, and Susan Murphy-LaMarche.*

PPPL's Ronald Davidson, Pamela Lucas, and Susan Murphy-LaMarche are among a group of honorees recently recognized at Princeton University for "making a difference in the lives of women at Princeton."

The President's Standing Committee on the Status of Women honored forty-three students, alumni, faculty, and staff who have, in ways large and small, made Princeton University a more welcoming environment for women to live, learn, or work. The group received certificates during a reception in their honor last month at Prospect House.

During the reception, Princeton Provost Jeremiah Ostriker, Vice President for Human Resources Joan Doig, and Chair of the President's Standing Committee on the Status of Women Karen Woodbridge delivered remarks.

Doig said to the honorees, "We've come together really to hear all about you and the way you have contributed to life here at the University."

Davidson, Professor and Associate Chair of the Department of Astrophysical Sciences and Head of the Nonneutral Plasmas Department at PPPL, served as Director of the Laboratory from 1991 through 1996, during which time he created the Director's Advisory Committee on Women. He was cited for "making Princeton a more welcoming environment for women by establishing an advisory committee to address issues of women at PPPL. Ron's strong support of the mission and vision of the Committee has enabled it to address issues such as employment parity and sexual harassment awareness and to review and identify career opportunity programs and processes that assist women in achieving full career development."

Lucas, PPPL's Diversity Officer and a Program Leader for Science Education, was recognized for "advancing the awareness of diversity at PPPL by providing the education, information, and training required to move the members of her community toward being agents for change. Through her efforts and example, the PPPL community has begun to learn the benefits that inclusion of diverse peoples can bring."

The citation for Murphy-LaMarche, who is PPPL's Human Resources Deputy Head, said, "Sue has infused the environment at PPPL with the energy, curiosity, and tenacity required to effect change. She has been a creative and innovative presence in the upper management, decision-making arena as an advocate for the inclusion of women on staffs historically dominated by men and as a resounding voice for the promotion of women."

The honorees had been nominated by fellow members of the Princeton community. Commenting on being recognized, Lucas said, "I am honored to have colleagues who make a difference in the lives of so many people. When you look all around and are in the company of people doing so much, it's a humbling experience."

Murphy-LaMarche said, "It's so nice when people think you make a difference in the workplace."

Added Davidson, "I am deeply honored by receiving this award from The President's Standing Committee on the Status of Women. However, the people most deserving of recognition are the women of PPPL, whose dedicated contributions play a vital role in making this a truly productive and enjoyable workplace."

Congratulations, Ron, Pam, and Sue! ●