

You did it! **1,000,000 Safe Work Hours**

by Phyllis Rieger

Awareness of safe work practices coupled with enforcement of existing safety regulations helped PPPL achieve one million accident-free hours on November 4.

In a brief ceremony on November 7 at the C-Site entrance safety sign, Laboratory Director Dr. Harold Furth praised, "Our hard-working employees who made the effort to create a safe work environment. Let's aim for two million accident-free hours."

Dr. Milton Johnson, Manager of the Princeton Area Office, U.S. Department of Energy, congratulated, "management and each employee for working in a safe and efficient manner to reach this milestone which shows the dedicated commitment of PPPL personnel to recognize safety is essential."

Deputy Director for Technical Operations Tip Brolin has stressed safety's importance and has said, "A good safety record is tangible evidence of our safety commitment and performance."

To celebrate the occasion, employees were treated to cake and beverages in the C-Site cafeteria on November 9. ✱



(Photo by John Peoples)

Director Harold Furth (right) points to the one million accident-free hours shown on the Safety Sign at the Laboratory entrance. Ray Jeanes, Jack Joyce, Milt Johnson, Dale Meade, Mary Shoaf, Ellis Simon, and Tip Brolin (left to right) joined Dr. Furth in the ceremony noting this achievement.

R&R for TFTR

by Phyllis Rieger

"Expect new challenges on a regular basis" is one motto understood by those who work on the TFTR.

According to Dale Meade, Head of the TFTR Project, TFTR has made significant progress in the last six months establishing world records for ion temperatures and fusion neutron production rates. Much of the progress came from the injection of high power neutral beams (up to 30 MW).

Unfortunately, the best results were

constrained by the inability of the 2-ton carbon bumper limiter to absorb the power. A limiter defines the edge of the plasma and prevents it from striking the vacuum vessel. During the last run, physicists determined that excessive heat loads had damaged bumper limiter tiles.

Deputy TFTR Project Head Jim Sinnis said, "We were pleased at TFTR's recent achievements (see box on page 2) and with the limiter repairs, we feel results will even be better."

Continued on Page 2

Inside

TFTR Sets World
Record 2

Express Mail Service
Begins 3

Travel Services Moves
to Accounting 4

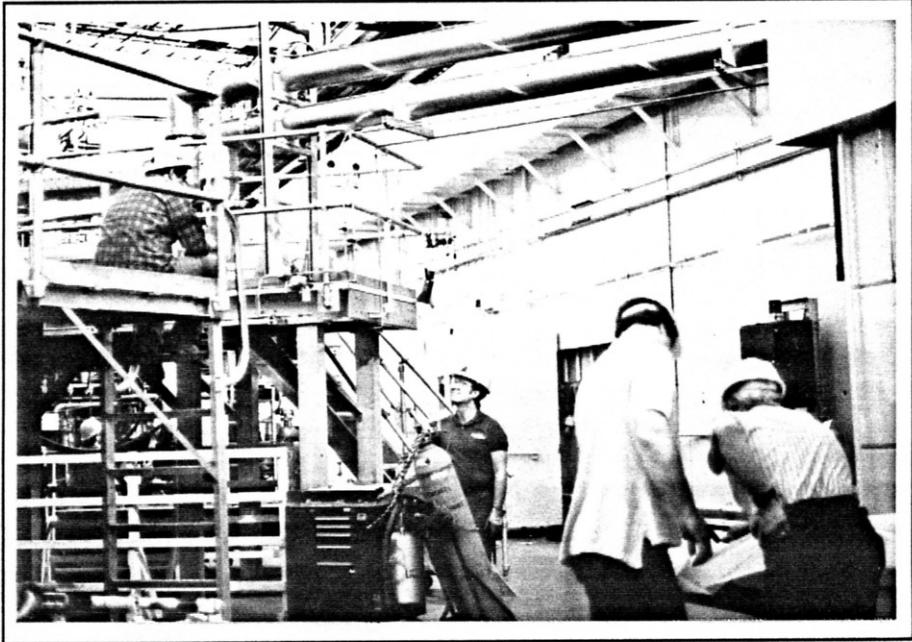
R&R for TFTR

Continued from Page 1

A mini shutdown was approved on October 25 to fix the bumper tiles. Upon entering the TFTR vacuum vessel, George Barnes, Mike Ulrickson and Kingston Owens found several graphite tiles that were damaged and needed repair. The plan is to replace about 50 tiles (out of 2,000) and to realign the limiter. These activities will end with a pumpdown on January 23, 1989.

Erik Perry, manager for the shutdown, said, "In addition to the bumper limiter and the rf (radio-frequency) limiter we will perform a number of other tasks, such as inspection and possible repair of other components."

Erik worked with physicists, engineers and technicians to devise a shutdown schedule of over 100 activities. ✱



(Photo by Phyllis Rieger)

Over 100 activities will be completed during the mini shutdown of TFTR.

TFTR—World Record Results

Super supershots have helped the Tokamak Fusion Test Reactor (TFTR) achieve international recognition for attainment of a world record ion temperature of 30 keV (330 million degrees Centigrade) using neutral-beam heating powers of 30 megawatts.

Supershots are characterized by peaked density profiles; that is, high density in the center of the plasma and low near its edge. This is obtained by using neutral-beam fueling to build

up the center, and conditioning the limiter to absorb particles near the edge.

For those of us not scientists, this means the TFTR is a world leader in reaching scientific results for a magnetic fusion energy device.

At the International Atomic Energy Agency (IAEA) Meeting in Nice, France, TFTR physicists also presented the most detailed measurements and analyses of high temperature plasmas. The present plasma parameters corre-

spond to an equivalent $Q_{DT} \sim 0.3$ which would extend to $Q_{DT} \sim 0.5$ full power. Q is the ratio of fusion power output to heating power input. Equivalent Q_{DT} is the value of a Q that would be obtained if tritium were present in addition to deuterium.

Experiments during the coming run will concentrate on improving plasma performance to $Q_{DT} \sim 1$ (energy breakeven) and on developing a better understanding of plasma confinement in the TFTR.

PPPL
ORC Employee Opinion
Survey Response

Iverson Reports PPPL Benefits Ratings to University

A long-awaited PPPL presentation on the status of employee benefits was recently made to members of Princeton University's Benefits Committee. The presentation was a response to the findings of the Employee Opinion Survey of all Laboratory employees conducted by Opinion Research Corporation (ORC). Among those at the presentation were members of Princeton University's senior

administration, several of whom have recently been appointed to new posts.

Princeton Plasma Physics Laboratory Director of Personnel, Steve Iverson, Chairperson of the Benefits Subcommittee of the ORC Response Task Force, presented to the University Committee a detailed report of PPPL employee ratings of the benefits, along with results of an evaluation of benefits at other United

States Department of Energy-funded laboratories.

"Our primary objective," Iverson stated, "was to report fully our employee's evaluation of the University's insurance benefits. We stressed the concern shown in the survey with regard to the medical plan, which employees rated lowest of the various benefit programs. Tuition Refund, Post-Retirement Life Insurance, and the

Biweekly Pension Plan also were rated somewhat 'below average,' but to a lesser degree than the Medical Plan."

Data Reviewed with University

Iverson said the University's Benefits Committee was concerned about the very low rating given the medical plan in the Employee Opinion Survey. "The Committee was receptive and listened attentively," said Iverson. "Paul Benacerraf, recently appointed Provost at Princeton and Chairperson of the Benefits Committee, said the data we provided would be considered along with input from other sources as changes to the health plan are considered in the future."

When approaching possible changes in the structure and content of Princeton's benefit program, many complex and inter-related factors must be considered, including government legislation, competitive benefit trends, changes in employee needs and expectations, demographics of the University's work force, as well as financial considerations. All will bear on recommendations that will respond to employee concerns.

"Medical insurance, and related dental care, are among the most costly of benefits, and any future improvements in these areas must be weighed against costs and other compelling needs that affect the quality of life at the University and the Laboratory," Iverson added.



(Photo by Ed Farris)

Steve Iverson, Chairperson of the Benefits Subcommittee of the ORC Response Task Force, presented PPPL employee ratings of benefits and the results of an evaluation of benefits at other USDOE-funded laboratories to Princeton University's Benefits Committee recently.

This year the University Benefits Committee did approve two other benefit changes of interest to many employees: a revised program for staff educational assistance and an increase in the Tuition Grant program. These changes were announced in the Spring in the new Benefits News publication issued by the University and discussed in HOTLINE (Vol. 9, No. 23). "These improvements," Iverson related, "indicate a positive desire by the Benefits Committee to insure that the University's overall benefit package will keep pace with the market."

Surveys used for Comparison

The second part of Iverson's presentation to the Benefits Committee compared Princeton benefits to the results of (1) a Survey of Benefits Policies and Practices conducted by Brookhaven National Laboratory and (2) a Report of Supplementary Compensation at DOE-funded laboratories.

"Twenty-two institutions participated in the Brookhaven survey," Iverson said, "including a number of national laboratories and a select group of private firms which place emphasis on research and development or specialize in high-technology products. Twelve DOE-funded laboratories participated in the second survey, the Report of Supplemental Compensation."

These two surveys gave us a highly creditable basis for evaluating Princeton's benefit offerings. "Remember," Iverson cautioned, "benefit packages tend to vary by type of organization or employer groups. Thus, we should expect the content of the Princeton benefit package to be comparable to those offered by other employers in higher education."

The results of both surveys showed that Princeton group insurance package to be somewhat below average for comparable institutions. At the same time, however, other University benefits meet or exceed those offered by other employers. "Looking at the overall cost of benefits to the University, that is, the percent of every payroll dollar spent on benefits," Iverson explained, "Princeton ranks in the top-half of the DOE-funded laboratories."

Princeton Benefits Competitive

Iverson concluded that, "based on the information the Laboratory gathered from

the Brookhaven and DOE studies, and from other, more general benefits studies, Princeton benefits are competitive overall. The major difference," Iverson explained, "is in how Princeton spends its benefits dollars. Other employers spend more of their dollars on medical insurance; Princeton puts its benefits dollars on items such as paid vacation, long-term disability payments, and contribution to retirement, among others.

"You'll rarely see a Tuition Grant program offered by an industrial employer. Tuition grants are a very expensive benefit when used by employees to help offset the tuition costs of putting children through college. On the other hand," Iverson continued, "preference as to how benefits dollars are to be spent will vary from employee to employee and will depend on personal needs, age of the employee or dependents, family/marital status, health and other considerations." *

Fast Mail Delivery Links C-Site with College Road

An express mail service between the LOB and Building 307 has been initiated on a trial basis. This service will use the shuttle drivers and building receptionist to provide a simple means of getting priority mail between the two sites.

Mailboxes have been installed in front of the LOB and in the 305/307 shuttle shelter. The shuttle driver will pick up mail from these boxes and deliver it to the receptionist at the other end of the run. To use this service, one should:

- Deposit the mail in your respective mailbox and raise the indicator flag so that the shuttle driver will know that something is in the box for pickup.
- Call the recipient to advise him/her that the mail will be delivered to the receptionist (LOB or 307) on the next shuttle bus run (allow 20 minutes).

Recipients must pick up the mail at their end of the delivery; the receptionist will not call or deliver the mail.

The service and any impact on shuttle and reception services will be evaluated in a couple of months. *

Toy Run Kicks Off

To help kids in Bucks County, PA, have a happy holiday season, PPPL employees Debbie Anastasio and Ronnie Koon are collecting new toys and canned goods which will be distributed on December 17. This holiday drive is sponsored by Breed MC, a group of motorcycle enthusiasts, who will run the toys that Saturday afternoon to the Delaware Valley Medical Center in Langhorne.

Contributions may be left in a special box outside the print shop, room A105. If you have questions, call Debbie at ext. 2141 or Ronnie at ext. 3292. ✱



Security Tips

Help keep PPPL crime free. Practice the following security tips from Public Safety.

- Display ID badges at all times.
- Report all crimes or attempted crimes and all suspicious person to Security, ext. 2536.
- Challenge unfamiliar individuals without ID badges.
- Use the Mandatory Property Pass System.
- Secure all personal and Government property if left unattended.
- Lock all Government and personal automobiles and remove the keys from the vehicles. Store items in the car trunk whenever possible.
- Record the serial numbers of personal and Government property for future reference.
- Discourage piggybacking through Card Read doors.
- Do not prop doors open. When found open they should be closed.
- Lock all doors and desks when away from the work area. ✱

Safety Training

The Occupational Safety Branch has scheduled the following safety training courses for December:

<u>Course</u>	<u>Date/Time/Location</u>
Radiation Safety Training	5-7 December, 8:30 a.m.-12:00 noon LOB Auditorium
Basic Safety	12 December, 9:00-10:00 a.m. 307 College Road
Confined-Space Entry	13 December, 9:00-11:30 a.m. 307 College Road

Employees must obtain permission from their immediate supervisor to attend these classes. Supervisors should call Mary Ann McBride at ext. 3468 to enroll their employees.

Basic Safety is offered every Monday at 1:30 p.m. in the Safety Training Trailer.

CPR is offered every Tuesday at 9:00 a.m. in the Safety Training Trailer. Contact Mary Ann McBride, ext. 3468, to enroll.

Colloquia

Colloquia are held each Wednesday from September to June at 4:15 p.m. in the MBG Auditorium, unless otherwise noted. Speakers for November and December are given below:

November 30 — "Laser Fusion Results from Nova," by R.P. Drake, Lawrence Livermore National Laboratory, Livermore, California.

December 1 (Thursday) — "The Radon Problem," by Robert H. Socolow, Princeton University, Princeton, New Jersey.

December 5 (Monday) — "Clean and Safe Fusion Energy in the 21st Century," by Gerald Kulcinski, University of Wisconsin, Madison, Wisconsin. ✱

Did You Know?

On November 18, Steamboat Willy also known as Mickey Mouse was 60 years old and push button phones were 25 years old. ✱

Petty Cash Hours Extended

Effective November 14, petty cash hours have been extended. The Petty Cash window, located in Module II, Room 194, C-Site, is now open in the morning from 9:00-10:00 a.m. and in the afternoon from 1:00-3:00 p.m. ✱

Travel Services Moves

Effective Monday, November 28, 1988 travel arrangements will be handled by the Accounting and Financial Controls Division—Travel Section. Contact Dawn Horner at ext. 2658 or drop by Module II, Rm. 150 to make travel arrangements or pick up tickets.

The PPPL HOTLINE is issued by the Princeton University Plasma Physics Laboratory, a research facility supported by the United States Department of Energy. It is primarily an internal publication. Correspondence and requests to reprint material should be directed to Carol Phillips, Editor, HOTLINE, P.O. Box 451, Princeton, NJ 08543 or telephone 609-243-2754; interoffice correspondence should be addressed to Room B366, James Forrestal Campus, C-Site.