

## Ulrickson Receives FPA's 'Excellence in Fusion Engineering' Award

Dr. Michael A. Ulrickson received the "Excellence in Fusion Engineering" award from Fusion Power Associates (FPA) at its annual meeting and symposium held in Santa Fe on September 6. The award is given to recognize and encourage individuals in the early part of their careers who have shown outstanding technical accomplishments and leadership potential in the field of fusion engineering. Mike is the second recipient of this award which was established in memory of Professor David J. Rose who died in 1985 and was considered a pioneer in the new discipline of fusion engineering.

Mike, who is the head of the Limiter and Impurity Control Section in the TFTR Tokamak Operations Division, was selected by Fusion Power Associates for his pioneering efforts in "the design, development and testing of graphite materials for

use as limiter and protective armor in magnetic confinement devices." In addition to receiving a plaque, he also received a check for \$500.

Mike began his studies of graphite materials while working on PLT (Princeton Large Torus) in 1976. He later helped design the graphite limiters and protective armor for PDX (Poloidal Divertor Experiment) and TFTR (Tokamak Fusion Test Reactor). Graphite limiters and divertors are in the baseline designs for the Compact Ignition Tokamak (CIT) and the International Thermonuclear Engineering Reactor (ITER). Limiters define the edge of the plasma and prevent the plasma from striking the vacuum vessel. The limiter absorbs the power conducted and convected to the plasma edge. The plasma-limiter interaction has a strong influence on the plasma impurity content and plasma performance.



(Photo by John Peoples)

*PPPL Physicist Mike Ulrickson was recently awarded the FPA's Excellence in Fusion Engineering award for his work with graphite materials for limiters and protective armor in magnetic confinement devices. \**

## October is Energy Awareness Month



(Photo by John Peoples)

*Bob Rogers (l) of the DOE /PAO and Steve Ragolia (r) of the Plant Engineering Branch stand in front of the DOE Energy Awareness Month poster on display in the LOB Lobby.*

"Energy Makes America Work," shouts the DOE Energy Awareness Month Poster as it proclaims October Energy Awareness Month. To help remind everyone of the importance of energy and the need to continue to use our energy resources wisely and efficiently, the DOE poster will be on display around the Laboratory. Featuring the American bald eagle and America's energy resources — hydro-power, coal, oil, solar, wind, nuclear, natural gas, and geothermal — this poster has been distributed to schools, libraries, state energy offices and energy-related organizations around the nation.

"Over the past few years PPPL has been very successful in its conservation efforts," said Bob Smart, Associate Head of Administration. He continued, "Here at

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**United Way Campaign Set to Kick Off October 25 at PPPL.**



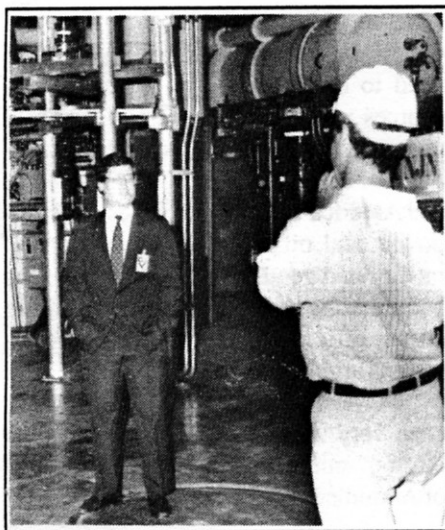
PPPL we have a key role in the nation's long-term efforts to provide energy without adversely impacting the major environmental problems, such as the greenhouse effect and pollution. In the short-term, as a major energy consumer, it is important that PPPL continues to make strong efforts to practice good energy conservation. This helps save our limited natural resources while at the same time reducing our very high energy costs. The important factor now is to keep our momentum going." \*

## 'Sun of Man' Aims October 6

Many of you have noticed the NJN (New Jersey Network) personnel and cameras in various areas of the Laboratory within the last five months.

Marc Levenson, NJN health and science reporter, has been filming a documentary on fusion energy. Called "Sun of Man," the hour-long show will air Thursday, October 6 at 8:00 P.M. Many PPPL personnel are featured and different areas of the Lab including the TFTR control room, the Test Cell, and the Monday morning meeting of physicists will be shown.

NJN includes 23/WNJS Camden, 50/WNJM Montclair, 52/WNJT Trenton, and 58/WNJB New Brunswick. However, you're advised to check your local television guide for the exact station.



(Photo by Dietmar Krause)

Marc Levenson, NJN reporter, filmed parts of "Sun of Man" at PPPL. \*

## PPPL Authors to Present Papers at IAEA Conference

The 12th International Conference on Plasma Physics and Controlled Nuclear Fusion Research will be held in Nice, France, 12-19 October. The conference, which is organized biennially by the International Atomic Energy Agency (IAEA), is considered by many the premiere conference for plasma physics. This year, sixteen PPPL authors will present papers covering work at the Laboratory, and Doug Post will present a paper on the International Thermonuclear Engineering Reactor (ITER). Papers to be presented at the meeting are:

- "An Overview of TFTR Confinement with Intense Auxiliary Heating," presented by M. Bell
- "Transport in TFTR Supershots," presented by M. Zarnstorff
- "Stability of TFTR Plasmas," presented by J. Manickam
- "Transport Studies on TFTR Utilizing Perturbation Techniques," presented by P. Efthimion
- "Tritium Retention and Conditioning of Graphite Limiters in TFTR," presented by M. Ulrickson
- "Fusion Product Measurements in TFTR," presented by J. Strachan
- "Current Drive and Confinement of Angular Momentum in TFTR," presented by S. Scott
- "ICRF Heating on the TFTR Tokamak for  $P_{RF}$  up to 5 MW," presented by J. Wilson
- "Formation and Heating of Peaked Density Profiles Produced by Pellet Injection in JET," presented by G. Schmidt
- "Initial Results of the PBX-M Experiment," presented by M. Okabayashi
- "Measurements of Confinement Characteristics of S-1 Spheromak," presented by M. Yamada
- "DC-Helicity Driven Tokamak," presented by M. Ono
- "Alpha Particle Loss in Tokamaks," presented by R. White

- "Theoretical Studies of Enhanced Confinement Properties in Tokamaks," presented by W. Tang
- "Theory of Energetic/Alpha-Particle Effects on Magnetohydrodynamic Modes in Tokamaks," presented by L. Chen
- "CIT Physics Basis, Performance Analysis, and Engineering Design," presented by R. Parker

In addition to those presenting papers, H. Furth, P. Rutherford, D. Meade, R. Goldston, F. Perkins, and K. McGuire hope to attend the conference. \*

## New Assignments

**Olga Bennett**, Administrative Assistant to Associate Director for Administration Richard Rossi, has been assigned to the Personnel Division on a part time basis. In this dual position, Olga will assist Personnel on various projects and activities. One of her first assignments is as the new Laboratory administrator responsible for C-Site Cafeteria Operations and Liaison. Any questions or problems concerning the cafeteria or cafeteria operations should be directed to Olga, ext. 2651.

**Deborah A. Smith** has been named Head of the Automated Information and Management Branch in the Information Resource Management Office. This new branch is responsible for operations, documentation, data base management, and hardware and software support for the Administrative Operations Department. \*

## Good Relations

Current trends and issues in U.S. science funding and technology prompted a delegation of 11 educators from the People's Republic of China to visit the U.S.

Invited by the U.S. Department of Education, the group toured PPPL as part of a month-long program administered by the National Committee on U.S.-China Relations. According to the Committee, "The delegation's primary focus is the variety of American policies which support university-level scientific research and to facilitate the transfer of research findings into economic activity."

PPPL physicist Norton Bretz led the group on a tour of the Laboratory. At an earlier discussion, PPPL physicist Joe Cecchi talked about the Laboratory's rela-

tionships with industry and technology transfer and physicist Tom Stix outlined the Laboratory's role in graduate educa-

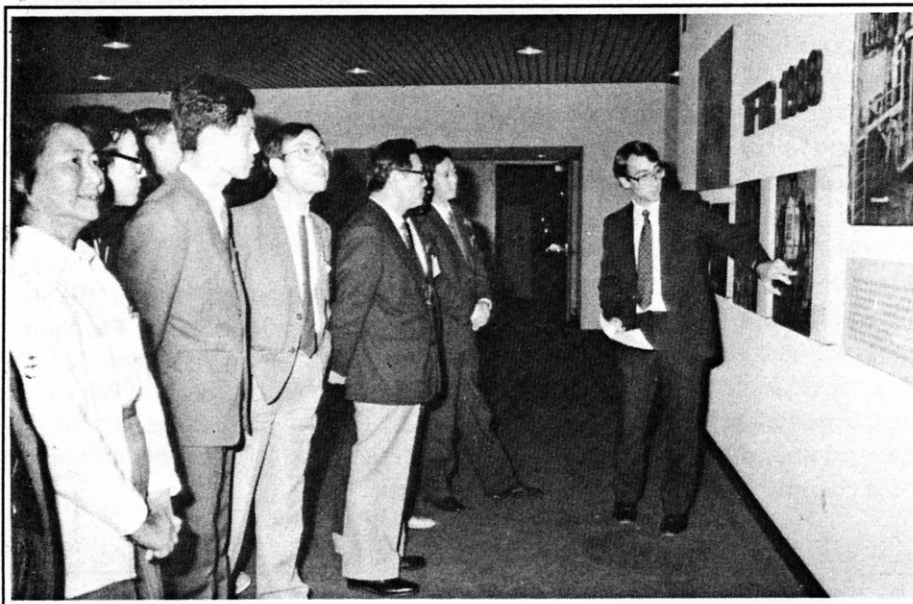
## Adopt an Animal: New Homes are Needed

**Wanted:** Home for four kittens left at Princeton Nursery. Dark grey fur with white tips (possibly part angora), three to four weeks old. Will be available in two weeks. First shots included. Call Sara, 924-1776.

**Wanted:** Home for Ashes. Female, gray, one-year-old cat, declawed (must be an in-door cat), spayed, and has all shots. Owner allergic and must give up. Call Barbara Sarfaty, ext. 2440.

**Wanted:** Home for 12-13 week old German Shepherd puppy. Black/tan markings, all shots, housebroken, good with children. Call Jack Thompson, 883-3595.

**Available:** Home for a small horse. Farm owner is looking for a small horse for pre-teen son. Call Marilyn, ext. 2656. \*



(Photo by John Peoples)

*Norton Bretz talks with a delegation from the People's Republic of China. \**

## PPPL ORC Employee Opinion Survey Response

### Career Development Resource Shelf Now Available to Employees

"New Horizons," "Accounting to Zoology," and "When Mother and Father Work," are just a few of the interesting books that can be found on the new Career Development resource shelf located in the PPPL Library. Established by Janet Buckner, PPPL Career Counselor and leader of the Career Counseling Workshop, the shelf is intended as a resource for Laboratory employees interested in identifying and exploring various career options and career paths.

Along with the many books there are many brochures and catalogues for our local colleges and universities, pamphlets and information on college entrance requirements, and standard resource references such as the "Occupational Outlook Handbook."

Bill Johnson, training and development manager, said, "we are delighted with how well the Career Counseling Program has developed and would like to encourage everyone to take advantage of this new library resource."



(Photo by Dietmar Krause)


*PPPL Librarian Jane Holmquest (r) shows Lena Scimeca one of the many books on career development now available to interested employees. \**



## Computer Corner

### Macintosh Software Warning

Macintosh computers delivered recently have included Apple's "System Software Update Version 6.0." Additionally, recent software manuals (such as MacDraw II) have recommended the use of System 6.0 over older system software. **The 6.0 system software was released in error by Apple.** It contains, at last count, 66 bugs. These bugs cause problems (ranging from annoying to catastrophic) with commonly used programs such as Excel. Apple is working on a fixed version, 6.02, which they hope to release in late October. In the meantime, *stick with what you're using now.* For the vast majority of Mac users, that is Apple's 5.0 system software, which contains (yes, I know it's confusing!) System 4.2 and Finder 6.0.

If you're not sure what you have, pull down the  menu and choose "About the Finder" to get a description of your current system software. If you already have the new, buggy software (System 6.0/Finder 6.1), get a copy of the 5.0 system software from the Macintosh Software Library (C-Site A127 or 307 College Rd. Rm. 154) and install the older version in place of the new.

MacDraw II users: even though the manual says the 4.2/6.0 combination is "not recommended," Claris (MacDraw's publisher) requests that you ignore the manual's recommendation and stay with the 4.2/6.0 system software until Apple issues a corrected version. If you have questions about Apple system software versions, you can call the Macintosh Hotline at 2792.

### Macintosh Software Demo

On October 17 at 4:00 p.m. in the MBG Auditorium, Ashton-Tate will demonstrate the following software:

**FullWrite Professional**  
**Full Impact**  
**Dbase Mac**

Contact D. Barnes, ext. 2557, for further information. ✱

## Let's Talk Benefits

Wednesday, October 19th is the day all of your TIAA/CREF questions will be answered. Ms. Katherine Stetts, an Advisory Officer with TIAA/CREF servicing Princeton will be at the Laboratory to give two presentations to the staff. The first session will be from 10:00 to 11:30 a.m. and the second will be from 1:30 to 3:00 p.m. Both will be given in the Melvin B. Gottlieb Auditorium at C-Site. Items Ms. Stetts will address include TIAA/Pension Accounts, Supplemental Retirement Annuities, and Money Market Accounts. A question and answer session will follow each presentation. ✱

## On Camera

PPPL's video magazine, "In Focus," will celebrate its first birthday by taking a look at the early days of the Lab with Dr. Lyman Spitzer when it airs in mid-October. Times and dates to be announced shortly.

## Staff Day Scheduled for October 29

Mark your calendar! October 29 is Staff Day. Princeton, predicted by **The Sporting News** to "... win their first title in 19 years" plays the University of Pennsylvania, winner of five of the last six Ivy League titles. Watch for more details in **HOTLINE.** ✱

## Safety Training

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

<u>Course</u>	<u>Date/Time/Location</u>
Radiation Safety Training	4-6 October, 8:30 a.m.-12:00 noon Theory Conference Room
Forklift Operator Training	12 October, 8:45 a.m., all day Safety Training Trailer
Confined Space Entry	13 October, 1:30 - 3:30 p.m. Safety Training Trailer and 20 October, 9:30-11:30 a.m. Safety Training Trailer
Portable Power Tools	18 October, 1:30-2:30 p.m. Safety Training Trailer

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.