

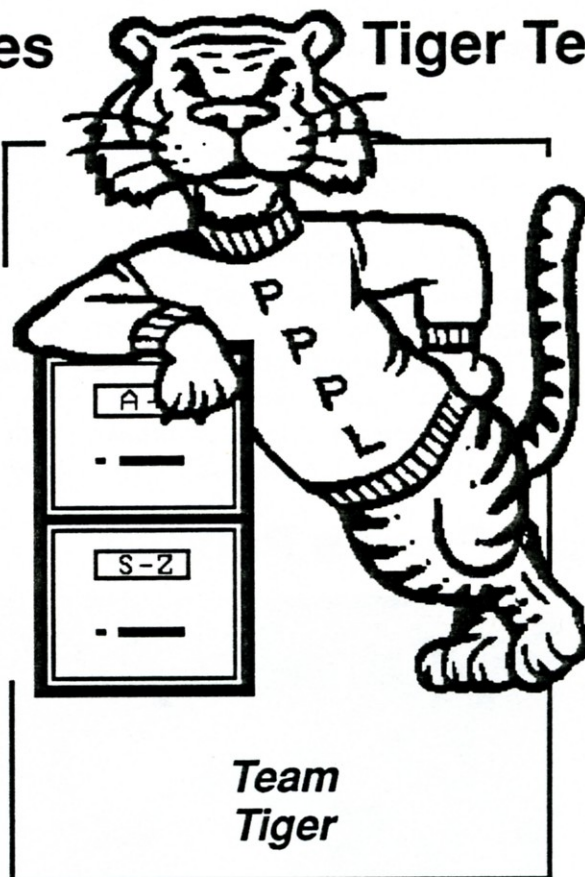
DOE Releases Tiger Team Action Plan

Just over a year ago, (February 11 through March 1, 1991) PPPL was going through the Tiger Team Assessment. Now, the Department of Energy (DOE) has officially released the Laboratory's Action Plan to correct deficiencies identified during that process, according to John DeLooper, Associate Director for Environment, Safety & Health/Quality Assurance (ES&H/QA).

In the meantime, however, PPPL has been very busy taking corrective actions related to the 250 findings made during the assessment. Each finding was broken down into milestones—phases or steps to be taken to correct the finding. Of these 612 milestones, nearly half have been completed.

Comments Deputy Director Dale Meade, "Since the Laboratory's mission is to develop fusion as a safe and environmentally attractive energy source, we are very pleased at the progress made so far, but we realize that continued hard work will be required to complete this important task. Some parts of this corrective action plan are needed for the 1000 Curie test Operational Readiness Review (ORR) on TFTR this June, and others for the full deuterium-tritium test ORR in the spring of 1993."

According to Quality Assurance Engineer Jim Graham, "Laboratory



management has made completion of these milestones a high visibility issue. Regular status reports are issued to middle and upper management that break down the status of the corrective process—which milestones are closed (completed), open, and overdue, and what Lab department is responsible for completion. In addition, Management conducts monthly Laboratory Management Reviews (LMRs) during which the status of milestones is examined and problems addressed."

Notes Graham, "Despite staffing shortages and other major projects that take staff time, we are making good progress in taking cor-

rective actions. Each month, open item reminders with due dates are sent directly to employees responsible for the specific corrections. They have put in tremendous effort and have been completing the necessary work in as timely a manner as possible."

A recent Department of Energy news release, which announces that the PPPL Action Plan is out, addresses the issue of funding and timing for corrective action. It says, "*In many cases, the planned corrective actions are straightforward and can readily be implemented within funding levels. Because of the need to hire additional people, develop and implement oversight procedures and practices, and design and construct monitoring equipment and improved facilities, some corrective actions will require additional funding and time to implement. The total estimated cost for these efforts is approximately \$33 million over six years.*"

The Department of Energy intends to follow up and make certain corrections are completed, as indicated by DOE Secretary James D. Watkins' statement in the news release. He says, "*DOE intends to proceed with the remaining corrective actions as part of our efforts to reestablish full awareness and accountability for our responsibilities to environment, safety, and health.*"

Public Meetings Held on EA Findings

Two public meetings to explain the conclusions of the *Environmental Assessment for The Tokamak Fusion Test Reactor D-T [deuterium-tritium] Modifications and Operations* and to answer questions regarding the findings were held at PPPL Saturday afternoon, March 14, and Monday evening, March 16. The meetings had been advertised in area newspapers and copies of the *Environmental Assessment* and a *Finding of No Significant Impact* were distributed to local libraries, as well as state, county, and local township officials.

The program included a welcome by USDOE Princeton Area

Office Manager Milton D. Johnson, an overview of the Laboratory and its programs by PPPL Director Ronald Davidson, and a description of the TFTR D-T experiments and a summary of the findings of the Environmental Assessment by PPPL Deputy Director Dale Meade. On hand to help answer questions were staff from the Environment, Safety and Health Division, the TFTR Project, the Engineering Department, the Security and Emergency Preparedness Division, and the Information Services Division. A tour of TFTR followed the presentations.

Approximately 60 people attended the meetings and many joined the tours. Audience members were

encouraged to participate by asking questions spontaneously at any time during the program. Questions included: "Where does tritium come from?" "How will tritium be shipped?" "What are the effects, if any, of the magnetic fields produced during experimental operations?" It was generally recognized by those in attendance that TFTR operations will not impact significantly the environment or the community.

A meeting to provide PPPL staff with an opportunity to become familiar with the conclusions of the EA was held here on March 12, with Deputy Director Dale Meade presiding.

Science on Saturday Proves Popular

"Between 350 and 400 students and parents from the Princeton, Trenton, and Bucks County areas came to each Science on Saturday program this winter," says Co-coordinator Larry Lagin. "We're delighted with the turnout, since our goal is to show as many kids as possible that science is fascinating and to interest them in becoming scientists."

This year's subjects drew tremendous interest. They included questions such as "What killed the Dinosaurs?" and "Is There Order in Chaos?" and topics like the evolution of galaxies, solar cars, and laser sound and pictures.

Excellent advance publicity via direct mail to schools and to previous audience members was organized by Robert Redding. That, combined with high quality, relevant programs and encouragement by teachers, brought out exceptionally large crowds this year, making Science on Saturday one



Dr. Gordon Thomas of AT&T Bell Laboratories (standing) spoke to an animated audience on the topic "Sending Sound and Pictures with Lasers" during this year's Science on Saturday series in LOB Auditorium.

Photo: Denise Applewhite

of the most visible parts of the Science Education Program.

Finding Topics, Speakers

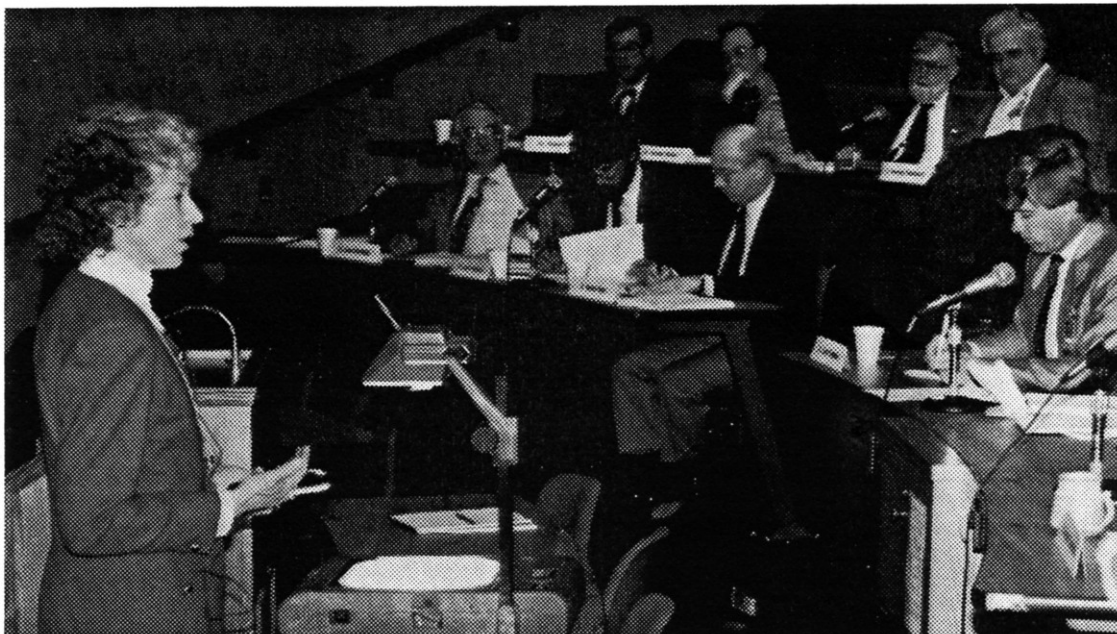
Each year, Co-coordinators Larry Lagin and Dennis Manos work together to pick expert speakers and timely topics for the six to eight lectures that are scheduled. Explains

Manos, "To find hot topics, we get ideas from *Scientific American* and other publications, we talk to high school teachers who are here in the summer, and we get ideas from Science on Saturday audiences."

Notes Lagin, "We try not to use the same topic again over a four-

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What's Happening at PPPL?



Dr. N. Anne Davies (standing), Associate Director for Fusion Energy/Office of Energy Research, gave FEAC (Fusion Energy Advisory Committee) members an update on DOE activities related to planning the next tokamak design during meetings at PPPL March 18 and 19. Also pictured are FEAC members (front row, left to right) John Sheffield, Oak Ridge National Laboratory; John Holdren, University of California, Berkeley; Barrett Ripin, Naval Research Laboratory; and David Overskei, General Atomics. Second row, (right to left) are: Marshall Rosenbluth, University of California, San Diego; Steve Dean, Fusion Power Associates, Ron Parker, Massachusetts Institute of Technology; and Robert McCrory, University of Rochester.

Photo: Denise Applewhite

In soldering technology, Madeline Michalowski is the best, having mastered the "Military Standard 2000" training—the highest soldering standard there is. And if there were such a standard for Easter eggs, she'd have a certificate for that too. Madeline, who works in the Electronics Fabrication Lab of the Engineering Department, has been an "egger" for many years.

Photo: Denise Applewhite



**ESU
FIRE SAFETY TIP**

Practice E.D.I.T.H. Exit Drills in the Home

If fire breaks out in your home—get out fast. Design an escape plan with your family. Be sure to include two ways out of every room in case one exit is blocked by flames or smoke. Select a meeting place outside where everyone will gather. Then, practice your plan with Exit Drills in the Home—E.D.I.T.H.

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Science on Saturday

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year period. Therefore, a student who comes regularly could learn about as many as 30 topics in that time span."

"Once Larry and I pick the topics, we begin looking for speakers," Manos explains. "Because many scientific experts live in local communities, we are usually able to find speakers who are within an hour of PPPL. This year our speakers came from Bell Labs, Princeton University, Rutgers, Drexel, and the University of Pennsylvania."

Manos adds, "Sometimes we hear of an excellent speaker who is able to provide us a topic that will be of interest to our audience. We are especially interested in providing a balance of speakers that includes women and minorities, so we encourage everyone to suggest *both* potential speakers and topics to us."

"Speakers prepare their hour and a half hour talks, travel to PPPL, and give their lectures all on a voluntary basis. We are very grateful to our speakers. They are the heroes of our program," observes Manos.

Refreshments Add Fun

According to Pat Buggs, this year, Science on Saturday buffs consumed 2600 cups of hot chocolate, coffee, and tea, 140 gallons of orange juice, apple juice, and milk, and nearly 3000 donuts!

Says Manos, "We appreciate Pat's hard work in purchasing all those goodies and setting them up, and we're very grateful for the funding for refreshments provided by the American Vacuum Society's New York and Delaware Chapters. I really see Science on Saturdays as a way for kids to have fun learning, and refreshments help give that message."

On a more serious note, Legin says, "I consider what we're doing patriotic—it's a step towards moving the country back into the top ranks in scientific fields through arousing student curiosity. Come one, come all, we want to inform and encourage everyone's interest in science!"

Manos, who is Principal Research Physicist, Head of the Atomic

Beams Group, and Head of the Surface Physics Group, has been coordinating Science on Saturday for 3 years. Legin, Lead Software Engineer in the Computer Systems Division, has been involved for 2 years.

Everyone is waiting to see what fascinating speakers and topics they will come up with for next year. If you have ideas, please let them know!

The Library a Treasure Trove of Info

Did you know? PPPL has a wonderful Library, and the versatile staff can help you retrieve just about any kind of information imaginable, although of course the collection focuses on fusion and plasma physics. Research physicists are the most frequent Library users, and some engineers are also regular users. But there are services available that could help any PPPL employee.

Says Head Librarian Judy Frazer, "We do all the things any branch library does, such as circulating books and reports. Our book collection is well used, with nine out of ten titles circulating. We also have journals, newspapers, and many standard reference works, including dictionaries, encyclopedias, directories, and road atlases.

"Another service that any Lab employee might find useful is our PhoneFiche—telephone books covering the U.S. and some foreign countries, all on microfiche," notes Frazer, adding, "We also provide a service few libraries do—a copier that's free to the user for library materials."

"We have the wonderful advantage of being a part of the Princeton University Library system, so we can request both professional and nonprofessional materials from throughout the system," Frazer observes. "Usually it only takes one or two days to retrieve the materials

for the borrower. If no library here has the materials, we can get them through interlibrary loan."

Online Searching

While the card catalog still provides access to older materials, the Library depends on two online catalogs for more recent acquisitions. One is the Online Catalog of the Princeton University Libraries, the source to use for finding books and bound journals.

The other is the well used "PPL CAT"—a local catalog of journal articles and reports related to plasma physics and nuclear fusion. PPL CAT is constantly updated by Assistant Librarian Rhoda Stasiak. She observes, "PPL CAT is an unusual service, because few library catalogs take information down to the *article* level. My job is to select relevant titles from all the journals we receive and catalogue them by author, title, and subject. Information is up to date at least through the previous week."

In addition to its catalogs, the Library has many other online data bases within reach of its computers. FOLIO databases, which include government documents, popular journals, and the Princeton News Network, can be searched by anyone with a PUCC study account.

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Library

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Commercial data bases available through DIALOG are searched only by the librarians and costs are charged back to your laboratory account. You may now order full texts of journal articles online, and they will be mailed or faxed directly to the Library. The Library is paying for such document delivery services on a trial basis.

The Library is also offering a current journal awareness service, using Current Contents on diskette. Through this service, you can automatically receive by mail a list of articles in your specialty as such articles are published. This service supplements the ongoing process of receiving tables of contents of journals that you request in your office. See the librarians to find out more.

Changing with the Times

Ever since the Library came into being, it has been changing with the times. From 1952 to 1958, as part of Project Matterhorn, it was classified. In 1961, the name of the laboratory was changed to PPPL, and the Library became a branch of Princeton's Firestone Library. The collection has expanded to include 13,000 bound volumes, 20,000 reports, and an extensive microfiche collection.

Over the years, Library activities have reflected the interests of the Lab. For example, according to Stasiak, "In earlier times, when TFTR was being built, borrowing from the Princeton University Engineering Library was heavy."

At the present, it is not surprising that with tritium to be introduced into TFTR in 1993, many requests related to tritium technology and to environmental safety are being made.



Photo: Denise Applewhite

The library staff offer the challenge, "Try and stump us!" Standing (left to right) are Head Librarian Judy Frazer and Library Assistant Ellen James. Seated are Rhoda Stasiak, Assistant Librarian, and Sharon Brown, Library Assistant.

Try and Stump Us!

In addition to Librarian Judy Frazer and Assistant Librarian Rhoda Stasiak, Library Assistants Sharon Brown and Ellen James are available to help you find what you need. In fact, they offer a challenge to all comers to "Try and stump us!"

Stasiak remembers some previous challenges. "One person wanted the original Einstein paper on relativity which was published in a German journal in 1905. Another wanted a German article from the mid-eighteen hundreds. A third wanted an original paper by Newton, but when I told him it was in Latin, he said he'd settle for an English translation. We were able to accommodate all these requests!"

Now it's your turn! Send a librarian on a treasure hunt, and you'll discover just how resourceful they can be.

HOTLINE

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Alcoholic Beverages Policy

The Princeton University guidelines for serving alcoholic beverages have recently been reissued. All guidelines that apply to the University apply to PPPL as well. In addition, all federal, state, and local laws and regulations apply here. While some of these guidelines are most likely to apply for student events, it is appropriate that all University employees be familiar with them. In addition, specific guidelines for PPPL are listed.

Princeton University Guidelines

1. When alcoholic beverages are served at an event, non-alcoholic

beverages should also be available and clearly visible.

2. Events at which alcoholic beverages are served should include the serving of food in visible, accessible areas.

3. If anyone under 21 years old will be present at the event, alcohol will be served in a designated area where access can be restricted to those of legal drinking age.

4. Under normal conditions, at events where alcoholic beverages are served, a responsible individual will be designated to serve and monitor the compliance of state and University policy and to summon assis-

tance should there appear to be individuals who are severely intoxicated.

PPPL Additional Guidelines

1. When alcoholic beverages are served at an event, non-alcoholic beverages should also be available and clearly visible.

2. The approval of the Laboratory director is required at any PPPL event where alcoholic beverages are to be served. (Nonalcoholic beverages and food may be served without such approval.)

3. In those instances where alcoholic beverages are approved by the Laboratory director, only beer, champagne, and/or wine are permitted.

TRANSITIONS

Births

Congratulations on the March 5th birth of son Richard Alfred to **Richard Cargill** of the Stores Operations Branch and **Fran Jenner Cargill** of the Property Administration Branch.

All the best to **Connie Cummings** of Accounts Payable and her husband Dale on the birth of baby boy Brandon, March 10.



In Memory

Michael Emma died on January 25. He was a Technician at PPPL when he retired in 1981 after 14 years with the University.

Calvin Perry died on January 10. He had been employed here since 1977 and was most recently Lead Janitor at the Lab.

David Eugene (Gene) Colburn, died on January 11. He retired from PPPL in 1989 after 12 years with the Laboratory. At retirement, he was in PBX Heating Systems.

Low Cost Spaying (800) 631-2212

Friends of Animals' Breeding Control Program offers low cost spaying for both cats and dogs. Call for a certificate and list of affiliated veterinarians in the area. Costs are: \$38 for female cats, \$20 for male cats, \$59 for female dogs, and \$34 for male dogs. (Marilyn Hondorp at ext. 2656 can refer you to local veterinarians.)

Sell, Buy, Rent, Give Away or Trade

Send your ad to **HOTLINE**

Name: _____ Ext: _____

Item: _____

Price: _____