



HOTLINE

PRINCETON PLASMA PHYSICS LABORATORY

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PPL WINS NATIONAL SAFETY AWARD OF HONOR

The National Safety Council (NSC) confirmed that PPL has become a safer place to work by selecting the laboratory to receive its Award of Honor for most improvement in its category in 1984. The award, the highest occupational safety award the NSC can bestow, was given to PPL during the

October 16 management safety meeting.

In presenting the award to laboratory Director Dr. Harold Furth, New Jersey Safety Council President C. Edwin Max told his audience that "it's always a pleasure to recognize an effort that's paid

off." He congratulated laboratory employees for "contributing to making this achievement possible. I hope the performance continues, because you're doing a very good job."

The Award of Honor is presented to a variety of commercial and noncommercial companies, plants, and laboratories for demonstrating outstanding safety performance. Award applicants are required to show significant reductions in accidents and workdays lost due to injury. PPL, employing a combined University and contractor workforce of 1700 people, achieved the highest rating for improved performance among research laboratories in 1984.

Dr. Furth noted that "this laboratory has received a lot of recognition in the area of research, but I believe this is the first time we have received such a distinction in the field of safety." He called excellence in research and safety "mutually reinforcing. A place which can work safely should be a place where one can do good research, and I expect we'll be seeing plenty more of both here."

The NSC computes an accident incidence rate for each

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Laboratory Director Dr. Harold Furth (left) accepts the National Safety Council's Award of Honor from New Jersey Safety Council President C. Edwin Max.

Award applicant by examining the number of disabling accidents occurring for each 200,000 hours worked. The severity of each accident is also weighted by the number of days lost from work per 200,000 hours.

PPL is part of an NSC group—ing designated as non-commercial research laboratories, which includes other DOE-sponsored projects as well as all university-oriented research laboratories. In 1984, PPL reduced its disabling accidents by 69% and reduced the severity of accidents by 89%. Both figures were calculated by comparing the laboratory's current performance to its performance from 1981 through 1983. The only other DOE-related activity to win the Award of Honor is the Oak Ridge National Laboratory in Oak Ridge, Tennessee.

The NSC Award of Honor reflects PPL's steadily improving safety performance. In December 1984, PPL reached one million man-hours of work without a lost time accident, and was rewarded with an NSC banner.

Deputy Director of Technical Operations J.R. Thompson pointed out that all employees "can take a lot of pride in the achievements of the laboratory today and over the years." He said he could "sense a very real attitude of change toward our safety program. We have achieved excellence in our physics program, and we should expect excellence in our safety program as well."

Although Thompson cited the work of Ray Pressburger and Joe Stencel as being "funda-

mental to the lab's safety improvement," he maintained that the Area Safety Coordinators and Managers "are the heart and soul of this program, and it's you we'll be looking to in the future. We're off to a good start; we have quite an impressive record, and we've received recognition from the outside world. But it's very important to the future of the lab that we sustain what we've started, and we'll be counting on all of you to continue with the good job you've done so far. I hope this isn't just a one-time award, but the beginning of an annual event."

Dr. John Tobin, head of PPL's Occupational Medicine and Safety Division (OM&S), acknowledged the parts increased emphasis on safety training, periodic safety meetings, and the lab-wide Area Safety Coordinator program have played in reducing PPL's accident rate. He attributed the

lab's improved accident record to an increased commitment and participation in safety programs by senior laboratory management; organizational and staffing changes in the Safety Division; and increased employee safety awareness, as well as the organization of the Area Safety Coordinator Program. Safety Branch Manager Les Thompson agreed that the Area Safety Coordinator program "had a lot to do with the award."

Of the more than 12,000 industrial, educational, research, and governmental organizations which were members of the National Safety Council in 1984, only 500 Awards of Honor were made. However, Dr. Tobin estimated that well over 100 of the awards presented went to operational units of large companies, such as General Motors and DuPont, for example.

DOE Cites Laboratory for Improved Safety

A National Safety Council Award of Honor wasn't the only prize PPL received for its improved safety performance. In recognition of PPL's reduced accident rate over a three year period, the laboratory was presented with the Award of Excellence from the Department of Energy (DOE) during the October 16 management safety meeting. PPL is the only DOE Chicago Operations Office facility to receive a Phase I Award of Excellence, which recognizes dramatic improvement in a facility's safety record, this year.

Don Carden, head of the

DOE's Princeton Area Office, gave the award to Dr. Harold Furth, and added "the Depart-



Don Carden (right) of the DOE's Princeton Area Office presents Dr. Furth with the DOE's safety Award of Excellence.

ment's congratulations on your improvement, and for your important contribution to DOE's outstanding safety record."

DOE Princeton Area Office safety officer Juris Balodis submitted the lab's safety record for Award consideration. Juris feels the commitment to safety is evident at all laboratory levels. "In the summer of 1981, Dr. (Harold) Furth made a command decision to improve safety," he recalled. "Dick Rossi then took the hard initiatives that were needed to make sure safety procedures were in place throughout the lab. The improved safety record here is the proof that those programs work."

Juris feels much of the groundwork for the lab's safety program was accomplished through the hard work of Ray Pressburger. "Ray's work with the Area Safety Coordinator (ASC) program has been outstanding," he said. "If he hadn't put as much effort as he has into it, the program wouldn't be as big a success as it is today. However, J.R. Thompson's personal interest and involvement in the ASC program and other operational safety areas has made the big difference in raising the safety consciousness at PPL."

Juris emphasized that although the lab has done well in improving safety thus far, "we shouldn't be content to rest on our laurels. The awards are meaningful, but they don't recognize the total scope of the lab's safety program. Now the challenge will be to keep everyone's safety

interest high. We have to keep looking ahead, keeping

an ever-improving safety record as our goal."



PPL firefighters fought a smoky blaze that occurred in the pump house in August. To extinguish the fire, three firemen climbed down to the bottom of a sludge tank (next page; arrow indicates ground level) to close valves on the vessel.

Fire Wrap-Up

Emergencies often bring out the best in people, and the August pump house fire was no exception. In addition to validating PPL's faith in its Emergency Preparedness Plan, it also showcased the dedication of three volunteer firemen.

The fire broke out in the pump house next to the water cooling tower shortly before 9 a.m. August 15. It was apparently caused when workmen, using an acetylene torch to remove the metal liner from a sludge tank, inadvertently ignited the tank's styrene inner liner. The smoldering fire spewed smoke and fumes throughout the pump house area.

Emergency Response Coordinator Jack Anderson recalled trying "to cool the tank, but it reignited from the intense heat. So we decided to fill the tank with water to cool it off. To do that meant sending three firefighters, dressed in full turnout gear and wearing self-contained breathing apparatus, into a pit approximately 20 feet below grade level to close two gate valves at the bottom of the tank. The smoke in the pump house reduced visibility to almost zero, and the firemen had to climb down a ladder into almost two and a half feet of water that had been pumped into the area while fighting the fire."

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The trio who entered the smoky pit were Tom Furman, Mike Yea, and Frank Bozarth. They located the valves "mainly by feel," Anderson said, and managed to close them. The sludge tank was then filled with water, allowing the fire to be finally extinguished.

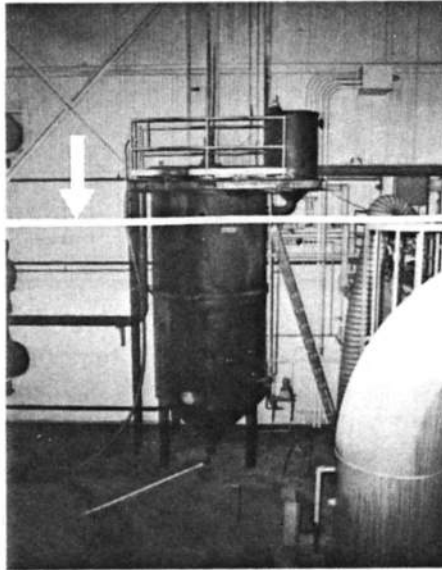
"The entire ESU team did a fantastic job," Anderson asserted, "but those three guys performed above and beyond the call of duty. They were really outstanding."

Anderson said the August fire "proves that all the work that's been done on the Emergency Preparedness Plan, along with the mutual aid and assistance agreements we've worked out with the first aid and fire departments in surrounding towns, has paid off. The proof was that the fire was dealt with quickly and efficiently."

He admitted that the number of employees milling around the fire scene was the "only drawback to the operation. The spectators became too curious; they wanted a look at the fire. They could easily have been in harm's way if there had been a toxic chemical in the fire and smoke."

In the future, Anderson has asked that all employees stay away from an emergency site. However, employees who can assist the emergency control teams by providing information about the site (the layout of the interior of a building, for example) should report to the Command Vehicle at the emergency site and await instructions from emergency personnel.

Anderson offered his thanks to the ESU, all responding municipal fire and first aid squads, and all PPL employees who offered their assistance at the fire site. "Without the caliber of people we had to work with, there could have been damage to surrounding pumps that would have had a negative impact on the TFTR program. We often take our emergency services people for granted, but they're always there to do a good job when they're needed."



Emergency Evacuation System

The Emergency Evacuation System for C-Site became operational last month. The system provides zoned and site-wide interior and exterior emergency voice broadcast, "whooper" evacuation signals, and flashing lights in high-noise areas.

The system will only be used for emergency notices such as fire, and toxic spills. Critical announcements, such as lab closings due to bad weather or power failure, will also be carried on the system. As far

as possible, such announcements will be broadcast to affected zones only.

This emergency system is independent of the existing personnel paging system, which will remain in service.

The voice broadcast and flashing lights modes of the system will be tested very briefly with other emergency systems each Wednesday at 12 noon. Any employee who identifies a problem with the system, such as inoperative speakers, should notify Plant Maintenance, ext. 3092.

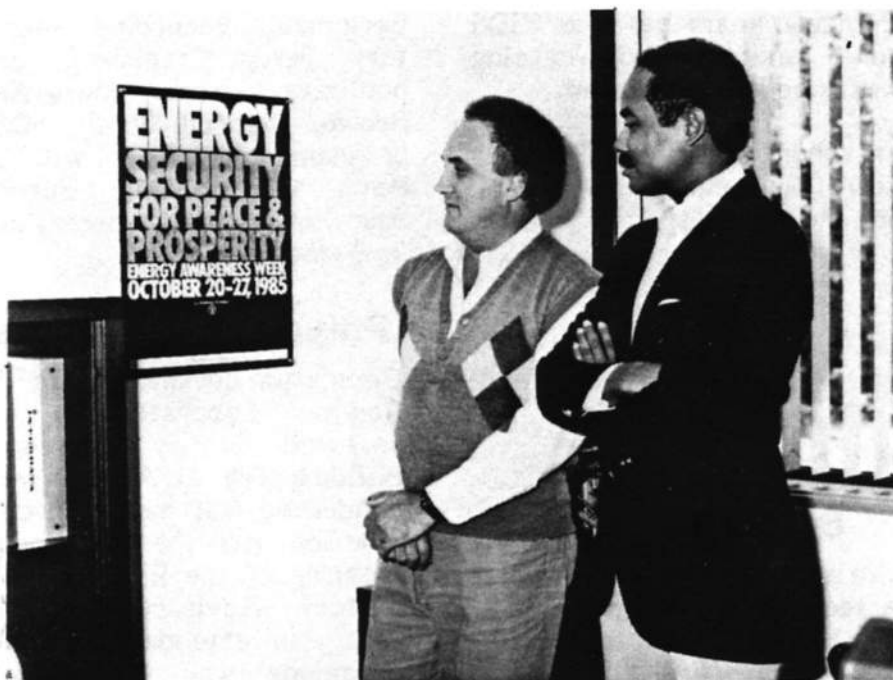
Some features of the new emergency system, such as the evacuation signals, would be disruptive to normal PPL operations. These features will be tested periodically during off hours; announcements will be issued prior to these tests.

Energy Week

Several years ago, the Department of Energy established "American Energy Awareness Week" in an effort to stimulate the development of America's resources, technologies, and energy conservation habits to provide a more secure and stable future for our nation.

Energy Awareness Week was observed at PPL from October 20 through October 27. However, energy awareness is a year-round concern throughout the laboratory.

According to Bob Gulay of Plant Project Engineering, PPL has pared down its usage of all types of energy. As an example, he pointed out that



Steve Ragolia (left) of Plant Project Engineering and Don Green of the Department of Energy's Princeton Area Office admire the DOE Energy Awareness Week posters they distributed throughout PPL.

PPL has reduced its energy consumption from the DOE's FY75 baseline of 64.9 kWh per square foot to 45.3 kWh per square foot in FY85. The difference results in a reduction of slightly more than 30% over that period, and translates into a savings of hundreds of thousands of dollars for the laboratory.

The electrical reduction was the result of a variety of projects, including demand limiting, conservation procedures,

recent lighting retrofit projects in buildings and grounds, and the Energy Management Control System (EMCS).

"Thanks to cooperation in conserving energy, the lab has scored quite an accomplishment so far," said Robert Smart, Head of Facilities and Support Office. "In the face of tight lab budgets, we need to realize savings wherever possible. The important factor now is to keep our momentum going."

Heating Policy

In an effort to combat increasing energy costs and deal with budgetary restrictions, PPL is continuing the winter heating policy it has followed for the past several years. The policy has resulted in significant savings through

conservation efforts by the laboratory community.

The policy requires thermostats to be set to maintain a minimum temperature of 65 degrees Fahrenheit. Heat will also be turned off or cut back

on weekends, weather permitting. Exceptions will be made for designated experimental areas, but unannounced inspections will be held throughout the heating season to ensure compliance with temperature restrictions.

Space heaters, which can only be purchased with the approval of Plant Engineering, or individual room controls should be set to maintain a maximum temperature of 68 degrees Fahrenheit. Unneeded lights should be turned off.

If you have an office or space you feel requires supplemental heat, or if you know of any energy wasting situations, call Plant Maintenance at ext. 3092.

Environmental Concerns

The laboratory is very sensitive to environmental issues and takes extraordinary measures to ensure that all PPL operations have minimal impact on the environment. In addition, sampling is conducted on air, water, soil, and vegetation to test for potential toxic pollutants. PPL's environmental status is summarized in a yearly report, which is distributed as a public document.

It is important that all employees not dump anything into the environment or into the laboratory's sanitary sewer system without prior approval. Dumpsters are provided for normal garbage, which is disposed of at an approved dump site.

In addition, the Materiel Control Division provides pickup and disposal of toxic or potentially toxic substances. Call Spence Holcombe at ext. 2328 to arrange for pickups. If in doubt about any substance, call Safety for a determination.

Help keep the environment clean!

File Clean Up

Maybe the organizers of the APS, IEEE, and AVS conferences deliberately chose the months of October and November for their major meetings -- not just because it's the beginning of the academic year, or the government's fiscal year, but to allow secretaries some quiet time (with the bosses gone) to clean out files, reorganize for

the new year, get the RIDS done, and inventory/catalog what needs to be stored.

In other words, don't order new filing cabinets -- clean out the old ones!

D U M P!

D ESTROY
U SELESS
M ATERIAL
P ROMPTLY!

SOSS Elections

Chris Ritter was reelected to a second term as chairperson of the Secretarial and Office Support Staff (SOSS) organization after the group's September 30 election.

Other SOSS officers elected in September include vice chairperson/treasurer Dolores

Bergmann, recording secretary Terry Greenberg, and publicity secretary Mary Ann Brown. Serving on the SOSS program committee will be Betty Carey, Jean Hurley, Ann McGee, Marie Steer, and Jo Barbour.

Polymer Lab Opens

Dedication ceremonies for the Polymer Laboratory, a new research facility located in Building 1-A at A-Site, were conducted last month in conjunction with the first annual meeting of the Polymer Laboratory Advisory Committee. In attendance at the ceremony was Dr. Edward Cohen, Executive Director of the New Jersey Commission on Science and Technology, the group responsible for a \$30,000 state grant in support of this activity.

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Safety Training

The following Health and Safety training courses are scheduled for November:

Basic First Aid	S. Larson Ext. 3166	November 11, 13, and 15 1-3 p.m.
Fire Extinguisher Training	S. Larson Ext. 3166	November 12 and 26 2-3:30 p.m.
Self-Contained Breathing Apparatus	S. Larson Ext. 3166	November 13 9:30-11:30 a.m.
Back Injury Prevention	M.A. McBride Ext. 3468	November 14 8:30 a.m.-noon
Cardiopulmonary Resuscitation (CPR)	S. Larson Ext. 3166	November 18, 20, and 22 9 a.m.-noon OR 1-4 p.m.

Employees must obtain permission from their immediate supervisor to attend these classes. Supervisors must call the responsible instructor to enroll their employees.

In the Polymer Lab, graduate students will study the effects of radiation on polymers, an important topic for coil design. The Lab is the second research facility to be established on the Forrestal Campus through a cooperative effort between the Plasma Physics Laboratory and Princeton's School of Engineering and Applied Science (SEAS). The first, a Chemical Engineering Laboratory, has been in operation for approximately two years.

Students working in the two laboratories are members of the new Interdepartmental Program in Plasma Science and Fusion Technology, which is directed by Dr. Robert G. Mills.



Graduate student Peter Pang watches as Professor John K. Gillham of the Department of Chemical Engineering cuts the orange and black ribbons during dedication ceremonies for the Polymer Laboratory at A-Site. Professor Gillham is in charge of the new research facility.



Don't Run in Heavy Traffic

If your daily run takes you near heavy traffic, you may be doing yourself more harm than good.

Running in heavy traffic for 35 minutes raises the level of carbon monoxide in your blood to that of someone who smokes about a pack of cigarettes a day, according to an article in "Women's Sports and Fitness" magazine. Carbon monoxide displaces oxygen in

the blood, reducing the amount of oxygen delivered to your body and possibly causing long-term damage to blood vessels.

Although some experts advise huge doses of dietary supplements to combat exposure to environmental pollutants, it may be easiest just to reroute your run to avoid heavy traffic.



United Way

AT WORK

First Call for Help

You've got a problem. You need to find a good child care agency, help for your aging parents, or a way out of the dead-end job you're in. You need information and assistance, but you don't know who

to ask, or where to turn. How will you find the answers you seek? By contacting First Call for Help, a service funded by the United Way - Princeton Area Communities.

First Call for Help is directed by the Princeton Area Council of Community Services, a United Way member agency. First Call does not deal solely with United Way organizations, however. Its purpose is simply to point people in the right direction for help with their problems or questions. If someone needs services available outside the United Way's 13-community service area, First Call will link the individual with the appropriate agency.

The Council began offering information and referral assistance to individuals and agencies in 1976. Callers have been matched with community resources offering aid

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for problems as varied as job counseling, transportation, divorce, schizophrenia, housing, and care for the aged. In addition, callers have received valuable help in handling state and local regulations affecting them.

First Call for Help can be reached by dialing 609-924-5865 or 609-799-6033.

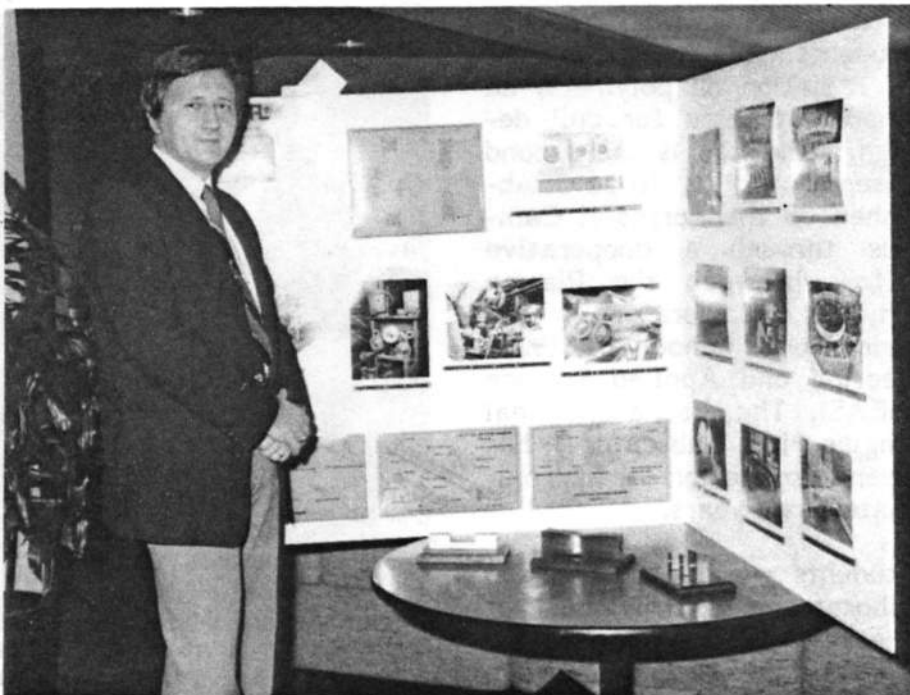
TRANSITIONS

The HOTLINE staff offers its congratulations to Bruce Hollendonner of Receiving #3, who married Grace Allen on September 14.

For Sale



A 14-foot, Flying Tern-type sailboat with trailer and extras. \$700. If interested, call Frank Homan at 201-359-5043.



Jim Chrzanowski poses beside his poster, detailing ATF coil winding, during a "dry run" of a poster session slated for the 11th Symposium on Fusion Engineering sponsored by the IEEE next month. Jim's poster is one of 18 prepared by the Graphic Services group that will represent the laboratory at the Austin, Texas meeting.

Tour Thank-Yous



The torrid pace set this spring by the laboratory's tour program cooled a bit as the weather heated up during the summer months. A total of 729 visitors viewed PPL's progress between July and September, with over half of them arriving in July. We'd like to thank the following guides, who kept those tourists in tow:

JULY

Halsey Allen
Dale Ashcroft
Charlie Bushnell
Sal Cavalluzzo
Dave Ciotti
Sam Cohen
Ernst de Haas
Fred Dylla
Robert Fleming
Robert Forester
George Gammel
Don Grove

John Johnson
Naren Kokatnur
Dan Kungl
Milt Machalek
George Martin
Loran Meray
Ernst Nieschmidt
Stan Schweitzer
Al von Halle
Howard Zuvers

August

Dale Ashcroft
Byron Benson
John Bradish
Charlie Bushnell
Diane Carroll
Sal Cavalluzzo
Dave Ciotti
Fred Kloiber
Naren Kokatnur
Paul LaMarche
Ed Lawson
Holt Murray

September

Charlie Ancher
John Bradish
Robert Fleming
Robert Forester
John Johnson
Naren Kokatnur
George Martin
Dale Meade
Ernst Nieschmidt
Ben Prichard
Earle Sheaffer



Personnel Division Head Steve Iverson, Assistant to the Personnel Director Bobbie Cruser, and laboratory Director Harold Furth (left to right) congratulated more than 44 laboratory retirees at a dinner held in their honor in September. Each retiree was presented with a gift from the laboratory in recognition of their years of service.

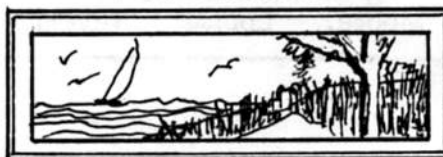
P.U. League

All women from overseas are invited to come to the University League each Tuesday morning from 10-11:30 a.m. Conversation in small groups and a program on American customs and holidays, etc. follows coffee and tea at 10:00. You may bring small children. Native English speakers are always welcome. For more information or transportation, contact Barbara Suppe at 609-924-6519.

Visiting scholars and foreign students on campus are interested in being helped with English and meeting "host families." If you are interested in meeting our International Community, please call the

International Center in Murray-Dodge Hall, 609-452-5006.

Art Exhibit



From October 6 through November 1, Hopewell artist Donald Localio will be exhibiting his abstract oil paintings in the Dorothy Brown Room at the Princeton University League, 171 Broadmead.

Born in Princeton, Localio has exhibited extensively and has had several solo exhibitions. His paintings reflect the influence of his mentor, Willem de Kooning.

Questions Answered

"How do I tell my two year old that there's going to be a new baby?" "What's the best kind of day care program for my child?" "My son's grades keep getting lower and lower every year. What can we do?"

Sometimes parents and guardians have concerns about their children that they would like to discuss with a professional. However, they may not need or want counseling.

Parents or guardians may take advantage of the Whitney Center's Parent Consultation Program. The program provides a forum for discussing a child's social, emotional, or intellectual development. Discussions may center on any and all facets of a child's life: from eating and sleeping, to changes that may occur due to divorce, illness, the birth of siblings, and so on.

Parents interested in participating in the Parent Consultation Program may call 609-924-2896 to ask for an appointment. The Whitney Center is located at 253 Nassau Street in Princeton.

The Community Guidance Center of Mercer County is an out-patient mental health counseling center. In addition to the Parent Consultation Program, the Center offers counseling and psychotherapy for individuals, groups, and families; psychiatric and psychological evaluations; alcoholism and substance abuse prevention and treatment; consultation and education to individuals, groups, and organizations; and custom designed Employee Assistance Programs for corporations, organizations, and the troubled employee.

OSHA Violations

The following safety reminders are drawn from a list of common Occupational Safety and Health Administration (OSHA) violations:

- Compressed gas cylinders shall be stored in secured, well-ventilated, dry locations, at least 20 feet from highly combustible materials. Cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways. Assigned storage spaces shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons.
- Valve protection caps where the cylinder is designed to accept a cap shall always be in place and hand tight, except where cylinders are in use or connected for use.
- Oxygen cylinders in storage shall be separated from fuel-gas cylinders or com-

bustible materials (especially oil or grease) by a minimum distance of 20 feet, or by a noncombustible barrier of at least five feet high having a fire-resistance rating of at least one-half hour.

- Cylinder valves shall be closed when work is finished.

Art on Display

A selection of drawings, paintings, and sculpture by internationally recognized artists -- all on loan from local private collections -- is on exhibit at the Squibb Gallery now through November 3.

"Fifty Years of Contemporary Art" features art styles ranging from 1930's abstraction through surrealism, abstract impressionism, pop, minimalism, photo realism, representational and figurative work, to the most recent East Village expressionism. Some of the painters represented in the collection include Marc Chagall, Red Grooms, Rene Magritte, John Marin, Henry Moore, Louise Nevelson,

David Smith, and Frank Stella.

The Squibb Gallery is located in the world headquarters of the Squibb Corporation, three miles south of Princeton on Route 206. The gallery is open daily from 9 a.m. to 5 p.m., with hours extended to 9 p.m. on Thursdays. Weekend hours are from 1 to 5 p.m. on Saturday and Sunday.

Retirement Thanks

Since it is difficult to individually thank all the people who participated in their retirement, Jean Henderson and Harold Barbour have submitted the following statement to the HOTLINE:

"We thank everyone who helped to make our lunch such a memorable event. Both of us are happy we were persuaded to "give in." We truly enjoyed it!"

"Our gifts were fantastic, and unique for each of us. Thank you all whose generosity made it possible for us to receive such memorable mementoes of PPL -- and of all of you."

The PPL HOTLINE is issued by the Princeton University Plasma Physics Laboratory, a research facility supported by the United States Department of Energy. Correspondence should be directed to PPL Information Services, Module 2, C-Site, James Forrestal Campus, ext. 2754.
