BROOKHAVEN BULLETIN

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BROOKHAVEN NATIONAL LABORATORY

Roger Stoutenburgh

Standing before BNL's High Flux Beam Reactor (HFBR), BNL's Dimitrios Cokinos (third from left), president of the Long Island Section of the American Nuclear Society (ANS), accepts the plaque commemorating the HFBR as a Nuclear Historic Landmark from ANS President Gail de Planque, Environmental Measurements Laboratory. Looking on are BNL'ers (from left) Seymour Baron, Associate Director for Applied Programs; Reactor Division Head Michael Brooks; Herbert Kouts, HFBR patent coholder; HFBR Scientific Program Head John Axe; and Joseph Hendrie, HFBR patent coholder.

HFBR Honored by American Nuclear Society

BNL now has two Nuclear Historic Landmarks — and its latest landmark continues to make up-to-the-minute science news.

When the American Nuclear Society (ANS) designated BNL's High Flux Beam Reactor (HFBR) a Nuclear Historic Landmark on October 17, the HFBR became BNL's second reactor to earn this distinction. The Brookhaven Graphite Research Reactor, decommissioned after the HFBR came on line in 1965, was so honored in 1986.

At the age of 23, the HFBR continues to provide unmatched performance, as measured by neutron flux, along with its sister reactor at the Institut Laue-Langevin, in Genoble, France.

In fact, to equip the HFBR for research into the next century, a Department of Energy (DOE) committee this summer recommended that an HFBR instrumentation-upgrade request deserves line-item status in DOE's budget request to the President for 1990.

A bronze plaque commemorating the HFBR's landmark designation was presented by ANS President Gail de Planque, director of DOE's Environmental Measurements Laboratory in New York City. Now installed in the HFBR lobby, the plaque was unveiled at an on-site luncheon. It was attended by, among others, Herbert Kouts and Joseph Hendrie, two of the five BNL'ers who hold the patent for inventing the HFBR's design.

The plaque is inscribed: "Production of intense neutron beams at the HFBR, beginning in 1965, gave the U.S. a unique probe for the study of matter, which continues to make important advances in science."

To explain further the HFBR's place in nuclear history, the ANS offered a citation stating: "The [HFBR] . . . was the first reactor designed to use a highly undermoderated, compact, central core surrounded by a heavy water moderator/reflector. This configuration maximizes the low energy neutron flux available at the beam tubes . . . . The elegant simplicity of its design has contributed to the HFBR's record of high availability and long, useful life."

The citation goes on to explain the significance of the "neutron beam experiments at the HFBR [that] have included pioneering research into the properties of the nucleus, condensed matter, and complex chemical and biological structures." (See accompanying box on page 2.)

The ANS citation concludes, "Many of these experiments have been on the cutting edge of research. The data obtained at the HFBR have played a central role in the development and understanding of solutions to many problems in solid state physics, chemistry, and structural biology."

— Marsha Belford

First Light From NSLS Wiggler

At 10:09 p.m. on Thursday, October 20, light came out of the first wiggler installed in the x-ray ring of the National Synchrotron Light Source (NSLS).

Inserted into a straight section of a synchrotron, a wiggler is a magnetic device that wiggles the electrons within the ring. With each wiggle, electrons emit photons, and, as these photons are superimposed upon each other, the photon beam becomes more intense.

When fully commissioned in 1989, this hybrid wiggler will produce x-rays that are thirty times brighter than those available from the NSLS's standard bending magnets.

Called a hybrid because it is composed of several elements, the wiggler's set of magnets is made of samarium cobalt, a material with a naturally strong magnetic field, and its 30 poles are made of vanadium steel.

The wiggler will be used for high momentum resolution x-ray scattering studies on beam line X-25, to be conducted by the insertion device team headed by Lonny Berman, NSLS. The team also includes BNL'ers John Axe, Physics; Jerome Hastings, NSLS; and Robert Sweet, Biology; as well as Paul Horn, IBM; Denis McWhan, AT&T Bell Labs; David Moncton, Exxon; and Peter Pershan, Harvard University.

Those who contributed to the wiggler effort on beam line X-25 include: Scientists Lonny Berman, Glenn Decker, John Galayda, Jerome Hastings and Lorraine Solomon; Engineers Rudolfo Alforque, Hank Hsieh, Joseph Schuchman, Sushil Sharma and Martin Woodle; Designers David Onsrud, Frank Short and Richard Wiseman; Programmers John Dabrowski and Ed Desmond; Technical Supervisors Dennis Klein and Ed McKenna; and Technicians Wickham Case, Charles Nielson, Mihai Radulescu, Robert Scheuerer, George Stenby, Gerard Van Derlaske and Thomas White.

An identical hybrid wiggler will be installed in February, to be used for high-energy resolution x-ray studies on beam line X-21.

AUI Board Elects New Trustees

Three new Trustees were elected at the annual meeting of the Board of Trustees of Associated Universities, Inc., (AUI) held at BNL on October 19-20. For Chairman of the Board Marvin Kuschner, State University of New York at Stony Brook, the meeting marked the midpoint of his two-year term.

The Trustees newly elected to three-year terms were Mostafa El-Sayed, University of California, Los Angeles; Val Fitch, Princeton University; and Ernest Henley, University of Washington.

Reelected for an additional three years were Bernard Burke, Massachusetts Institute of Technology; Barry Cooperman, University of Pennsylvania; Donald Hess, University of Rochester; and Aihud Pevsner, The Johns Hopkins University.

In addition, four Trustees retired from the Board. Charles Bockelman, Yale University, who had been on the Board since 1970, retired after completing six terms. Robert Dicke, Princeton University, had served three terms since 1979; James Ebert, The Johns Hopkins University, had been on the Board for two terms, beginning in 1982; and Steven Koonin, California Institute of Technology, served one term, which began in 1985.

A Model Start to SXLS Project

Last June, the National Synchrotron Light Source (NSLS) Department received $3 million from the Department of Defense (DOD), as part of a five-year project for the construction of the first U.S. compact synchrotron, or superconducting x-ray lithography source (SXLS). On October 19, a DOD Synchrotron Review Committee (SRC) performed the first review of the SXLS project, and part of the NSLS presentation was this full-scale model of the compact synchrotron.

Built by the Carpenter Shop in Plant Engineering, the model is made of styrofoam and measures 8.5 meters in circumference. The next step for NSLS staffers working on the project is to build a conventional magnet prototype of the SXLS, which will ultimately employ superconducting magnets. The industrial participants in the project are Grumman Corporation and General Dynamics (GD), to whom the SXLS technology developed at the NSLS will eventually be transferred.

Surrounding the SXLS model are: (front, from left) NSLS Chairman Michael Knotek; Jules Godel, NSLS; Gaetano Vignola, NSLS; Sam Gurol, GD; (back, from left) Richard Heese, NSLS; Tony Favale, Grumman; John Keane, NSLS; James Murphy, NSLS; Tom LeMaire, NSLS; Satinder Sidhu, NSLS; David Patterson, DOD; Steve Kovacs, Grumman; Hank Hsieh, NSLS; Gwyn Williams, NSLS; John Warlamount, SRC; Dave Nagel, SRC; George Campisi, SRC Chairman; Winston Thaw, Grumman; Bernard Fay, SRC; Alan Wilson, SRC; Robert Madden, SRC; BNL Deputy Director Martin Blume; Joe Schuchman, NSLS; Swarn Kalsi, Grumman; and Lee Patterson, GD.

—photo by Roger Stoutenburgh

A Golden Opportunity to Give and to Receive

Roger Stoutenburgh

To add "gold" to the pot waiting at the rainbow's end, Frank DeRosa, Plant Engineering, backed his truck up to the sign he made for the 1988 BNL United Way Fund Drive.

Already, the total in the pot is over $73,500. Your donation will help the drive reach this year's goal of $80,000 . . . and it may win you a prize. Lost your pledge card? Your United Way representative has extras, or call Susan Foster, Ext. 2888.

The prize drawing for pledges mailed by October 31 will be held on Tuesday, November 1, at 12:15 p.m., in the Cafeteria. Stop by to see if you will win the grand prize — a weekend for two in New York City at the Marriott Marquis Hotel — including tickets for *Me and My Girl,* dinner, room, brunch and parking. Or maybe you'll win one of the numerous dinners for two at various Long Island restaurants.

Outstanding Research at the HFBR

Solid State Physics

• **Critical Phenomena** — In the 1960's, BNL's Laurence Passell and Gen Shirane quantitatively uncovered how magnetic materials change near a critical point, the temperature below which a material makes the transition to a magnetic state. Further predictions of the dynamic scaling behavior of such magnetic systems were first confirmed by BNL's Julius Hastings, Lester Corliss and their collaborators in the 1970's.

• **2-D Physics** — In the 1970's, BNL's Shirane and Robert Birgeneau of the Massachusetts Institute of Technology discovered how magnetic order is established in two classes of two-dimensional magnetic materials, and how that order differs from that in three-dimensional ones.

• **Zero-Point Energy** — Through the 70's, Shirane and outside collaborators determined the behavior of helium atoms packed within lattices at temperatures so low that only zero-point kinetic energy dominates their behavior.

• **Superconductivity** — Since the discovery of high temperature superconductors two years ago, BNL's Shirane, John Tranquada and others have demonstrated that magnetic correlations between atoms in these materials do exist, correlations that have been proposed by BNL's Victor Emery to be required for superconductivity.

Nuclear Physics

• **Dynamical Symmetries** — The Interacting Boson Model predicts three symmetries in nuclei. The first examples of all three were discovered, and other key tests of the model carried out, through collaborative work done from 1977-85 by BNL's Richard Casten, David Warner and others, using both the HFBR's (n,γ) instrument for "complete spectroscopy" and the isotope separator facility TRISTAN.

• **Proton-Neutron Interaction** — To understand the way in which interactions among valence protons and neutrons deform the nucleus and to account for systematic energy level and g factor data from TRISTAN, Casten proposed in 1984 the "N_pN_n scheme." This scheme correlates vast quantities of nuclear data and offers a unified interpretation of nuclear phase transitions.

• **Rapid Neutron Capture** — In the mid-1980's, a BNL/Iowa State/Clark collaboration first studied in detail the lifetime and decay of $_{80}Zn$, a nucleus critical to the rapid neutron capture process of nucleosynthesis taking place in supernovae. The lifetime of $_{80}Zn$ helps determine how long a supernova explosion must last.

Chemistry

• **Organic and Organometallic Compounds** — In the early days of the HFBR, BNL's Walter Hamilton carried out pioneering studies of hydrogen bonding, which have shown the importance of these interactions in a wide variety of chemical and biological systems. More recently, studies by Thomas Keotzle and coworkers have concentrated on the bonding of hydrogen to transition metals, elucidating the structure of metal hydride complexes important to catalysis and hydrogen-storage applications.

• **Zeolites** — Since the 1980's, BNL's Ake Kvick and others have begun developing an understanding of the ordering of aluminum and silicon within zeolites, compounds useful for breaking down hydrocarbons into fuel oil and gasoline, as well as how guest molecules bind to the zeolite crystals' frames.

• **Fast-Ion Conductors** — Because of their applications in fuel cells, sensors and high-technology batteries, fast-ion conducting materials have become the object of structural studies by BNL's Richard McMullan and collaborators, who are investigating the mobility of the metal ions, which is of importance for the understanding of fast-ion conduction mechanisms.

Biology

• **Protein Crystallography** — In early 1968, pioneering experiments proved that neutron diffraction could be used for protein crystallography to study protein function and structure.

• **Complex Membranes** — In the 1970's, a detailed description of the myelin membranes of nerve cell sheaths led to the correlation of structure with biological function and physical properties of complex membranes. One result was that BNL's Benno Schoenborn and others developed the first bimetallic multilayer, which resulted in multilayers being used as monochromators and polarizers on several HFBR beam lines.

• **Ribosome Quarternary Structure** — 1988 was the culmination of work begun in 1972 to map the 21 proteins of the small ribosomal subunit. The completed map improves the understanding of the polymerization of amino acids to form proteins and of the ribosome's role in gene expression.

— Marsha Belford

BNL Staff Approved For IAPG Observer Membership

As a scientist in an advanced power field, would you like to:

• attend information exchange meetings with other federal researchers in your field?

• receive nonrestricted, federal research and development information — at no cost?

If you answer yes to these questions, you're in luck, because BNL staff were recently approved for observer membership in the Interagency Advanced Power Group (IAPG).

The IAPG helps federal researchers in advanced power fields exchange information and avoid undesirable duplication of their research efforts. Sponsored by the Army, Navy, Air Force, Department of Energy (DOE) and National Aeronautics & Space Administration (NASA), the IAPG was established in 1960.

While employees of the sponsoring agencies can join IAPG free as full members, observer status is granted to employees of federal liaison agencies and those working in recognized federally funded research and development centers (FFRDC).

FFRDCs are privately-operated contractors having special relationships with the government, which permit them access to Department of Defense (DOD) information and documentation not available to industry in general. BNL is one of the 36 DOD-, DOE- and NASA-sponsored FFRDCs for which the IAPG Steering Group unanimously approved observer membership at its most recent meeting.

Though observer members are nonvoting, they may attend most semiannual information exchange meetings and receive nonrestricted research and development information, without cost, through the Power Information Center (PIC), the support service for the IAPG.

One of the PIC's main functions is to coordinate the IAPG's semiannual information exchange meetings of working groups and panels. Currently, working groups exist in the following advanced power fields: systems; chemical; electrical, with panels on power conditioning and superconductivity; magnetohydrodynamic; mechanical, with panels on heat engines and auxiliary components; nuclear; and solar, with panels on solar photovoltaics and solar thermal.

The PIC also maintains a data base of advanced power research projects and distributes publications to its members on a regular basis.

For further information on IAPG membership, contact Judi Decker, PIC Program Coordinator, c/o CSR, Incorporated, 1400 Eye Street, NW, Suite 600, Washington, DC 20005. Her phone number is (202) 842-7600.

team safety

The leaves are turning, the air is crisper and football may be in the air, but safety had better stay on our minds! Week fourteen of the Team Safety* program was pretty tough for the home teams.

The Plant Engineering Custodial A team fumbled with a back injury sending them back to the showers until January 16, 1989. Central Shops teams fumbled twice: The Heavy Shop Team lost the ball on October 24, when a back injury stopped their progress and gave them a wash until January 16. The Light Shop Team, which was almost to the lunch table, (originally scheduled for November 8) had an unreported back injury in September, which has resulted in several weeks' lost time. This will send them to the showers until December 20. Let's go teams — get back on track!

Good news to report again from Supply and Materiel: All the teams are lost-time accident-free and have been so since the program began. Nice going, group. Keep up the safe work.

**Twenty-five teams are participating in the Lab's Team Safety Program. As a team reaches its time goal without any lost-time injuries, team members are being rewarded for their safe practices with a luncheon.*

In Memoriam

It has been learned that **Alfred Nelson,** who retired from the Department of Nuclear Energy as a technician in 1969, died on October 13, at the age of 85. He had been at BNL since February 1951, when he started working in the Hot Lab Operations Group.

He was a resident of Brookhaven Hamlet and is survived by a brother, Norman Nelson Jr., of Wading River; two sons, Norman Nelson, of New Jersey, and James Nelson, of California; a daughter, Lucia Nelson, of Massachusetts; and eight grandchildren.

Inside Info

Three members of the Physics Department were recently elected recipients of Senior U.S. Scientist Awards from the Alexander von Humbolt Foundation. The aim of this award is to promote scientific cooperation between scholars in the Federal Republic of Germany, and other countries. Towards this end:

• **Ole Hansen** began a ten-month stay at the University of Frankfurt, in August. There, he is collaborating on the NA35 experiment at CERN. In June, he will move to the nuclear physics accelerator laboratory KVI, in Groningen, the Netherlands, to spend two months working at the heavy ion cyclotron.

• **Ronald Rau** will go to Hamburg in January, to divide his time during 1989 between the DESY Laboratory and the University of Hamburg, while participating in the ZEUS collaboration, one of two high energy physics experiments at the electron-proton collider HERA.

• **Ernest Warburton,** in September, began spending a year at the University of Heidelburg, where he is conducting electron scattering research.

AA Meetings

Alcoholics Anonymous (AA) meetings are being held at the Lab every Monday at 5:30 p.m. All employees, others with current BNL identification cards and their spouses are invited to participate. To find out the meeting location, call the Employee Assistance Program, Ext. 2733. Participation in AA is confidential, so you will not be asked to identify yourself when placing the call.

Afro-American Culture Club Halloween Costume Party

The Afro-American Culture Club is a BERA-sponsored organization.

Bowling

Purple League

High games were bowled by Ed Beadle 220/212, Gail Schuman 204, Elaine Zukowski 188, Marsha Kipperman 187.

White League

Ed Sperry IV had a 202, Gerry Riker 198, Mary Scheidet 184.

Red/Green League

G. Meinken rolled a 243/201/602 scratch series, H. Dawson 221, R. Sick 218, K. Batchelor 210, N. Carter 203, N. Parrinello 203, E. Meier 202.

Arrivals & Departures

Arrivals

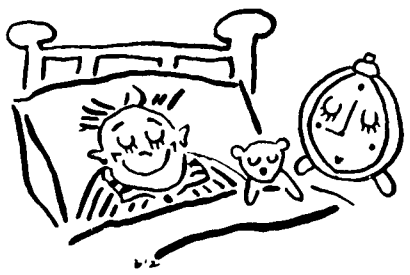
John N. Buscemi ..... S&EP
Joel J. Errante ..... Cent. Shops
David A. Graham ..... Physics
Yuhua Guan ..... Chemistry
Edwin V. Losee ..... Cent. Shops
Lino Miceli ..... Physics

Departures

This list includes all employees who have terminated from the Laboratory, including retirees:

Barbara J. LeMaire ..... Plant Eng.
Paul L. Ringold ..... DAS

Fall Back!



On Sunday morning, don't spring forward to get up — fall back on your pillow for more sleep. It's daylight saving time again, so at 2 a.m. on Sunday, October 30, you can change the clock to 1 a.m. and luxuriate in an extra hour.

Basketball

A meeting of the Basketball League will be held Thursday, November 3, at 5:30 p.m. in the gym. The meeting will determine how the league will be run. All who want to play this year must attend.

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At the BERA Store

A discount, mostly half-price, dining and entertainment plan is now available at the BERA Sales Office. This item sells at a local bookstore for the regular price, but BERA members can get it at a discount. To look at the coupon book, stop by the Sales Office in Berkner Hall any workday between 9 a.m. and 2 p.m.

Also available at the BERA Sales Office:

- **Merchandise** — Photo processing services supplied by Union Photo Company of Hackensack, New Jersey; film; some batteries; an attractive selection of Majestic and Gordon Fraser greeting cards; T-shirts; BNL postcards and mugs.
- **Tickets** — Magic Kingdom membership cards for Disney World, Epcot Center and Disneyland at no cost to the employee; United Artists Theater discount tickets at $3.25 each.
- **Handouts** — Twofers for some Broadway shows; travel brochures and flyers; Wholesale Club information and brochures; information on various magazine discount subscriptions; copies of East End Art News.
- **Participation Awards** — The Sales Office is the official redemption center for BERA Participation Awards.

For more information about the Sales Office, call Louisa Barone, Ext. 3347.

BERA Needs Lifeguard

Anyone interested in becoming a BERA lifeguard may apply by contacting M. Kay Hunt, Ext. 2873, or by calling Personnel reception, Ext. 2882, for an application.

Applicants must possess current Red Cross Advanced Lifesaving or Lifeguarding Certificates. They must also be available to work from 10:45 a.m. to 2:45 p.m., Monday through Friday, and to be on call to back up other lifeguards on weekends, if necessary.

Cafeteria Menu

Week of October 31

Luncheons

Monday, October 31 - Halloween

Soup: Witches' brew (garden vegetable chowder)	(cup)	.75
	(bowl)	.95
Beef cutlet Parmesan & spaghetti		3.10
Ham croquettes w/cheese sauce & veg.		3.10
Lite-line: Top round au jus w/veg.		3.10
Hot deli: Chicken patty sandwich		2.85

Tuesday, November 1

Soup: Chicken gumbo	(cup)	.75
	(bowl)	.95
Chicken & mushrooms in wine sauce over rice		3.10
Meat cakes & onions w/veg.		3.10
Lite-line: Broiled chicken & veg.		3.10
Hot deli: French bread pizza		2.85

Wednesday, November 2

Soup: Cream of broccoli	(cup)	.75
	(bowl)	.95
London broil w/mushroom gravy & veg.		3.10
Eggplant & zucchini Parmesan w/garlic bread		3.10
Lite-line: London broil au jus & veg.		3.10
Hot deli: Fried clams on a roll		2.85

Thursday, November 3

Soup: Cream of chicken	(cup)	.75
	(bowl)	.95
Veal Madeline & veg.		3.10
Fried fish amandine & veg.		3.10
Lite-line: Broiled fish & veg.		2.95
Hot deli: Monte Cristo sandwich		2.85

Friday, November 4

Soup: Chili bean	(cup)	.75
	(bowl)	.95
Spinach, mushroom & cheese quiche w/veg.		2.95
Linguine w/red or white clam sauce & garlic bread		3.10
Sliced turkey breast & veg.		3.10
Hot deli: Beef & onion cheddar melt		2.95

Breakfast specials

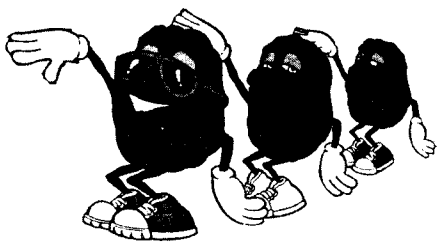
Monday:	Cheese omelet & toast	1.45
Tuesday:	Pancakes & sausage	1.10
Wednesday:	Ham & egg on roll	1.45
Thursday:	Beef hash & egg	1.50
Friday:	Waffles & bacon	1.05

Note to Employees:

Attendance at lectures, meetings and other special programs held during normal working hours is subject to supervisory concurrence.

Raisin' Fun for Halloween

Mort Rosen



Who was that masked raisin? If you've been wondering that ever since these three California Raisins danced through your office last Halloween, wonder no more. Tricking and treating some BNL'ers to a more than reasonable facsimile of the real thing (at right) during their breaks last Halloween were (from left) Ann Fort, Jeanne Danko and Kathleen Nasta, all of the Department of Nuclear Energy.

Volleyball

Standings — Week of October 17

League I		League II	
Dinkers	3-0	Nuts & Bolts	3-0
Upfagrabs	3-0	Set-Ups	3-0
Xrayted	3-0	Slammers	3-0
Cannonballs	0-3	Krush	2-1
Netminders	0-3	Ziegfield Vollies	1-2
Phoubars	0-3	Chunga's Revenge	0-3
		Fossils	0-3
		Upton-Ups	0-3

League III		Open League	
Frazzled	3-0	Dig Your Lips	3-0
High Volley'em	2-1	Magnum	3-0
MISfits	2-1	Phoenix	3-0
Renegades	2-1	Tom's Mutants	3-0
Good Timers	1-2	Constables	0-3
Printouts	1-2	Pi Chu	0-3
Sourcerers	1-2	Rowdy Radicals	0-3
Spikes	0-3	Vollies	0-3
		Meriem's Team	0-0

Hospitality News

Susan Sears will be the guest speaker at the next Hospitality Committee get-together on Tuesday, November 1, at 9:30 a.m., in the Brookhaven Center. She will demonstrate different techniques used in knitting and in creating various handcrafted items.

Please join us for this interesting presentation. If you have a sample of a knitted or handcrafted item that you have made or are working on now, bring it along.

Spouses of Laboratory employees and guests are invited to attend. Bring the children; free babysitting will be provided. Coffee, tea and danish will be served, and juice and cookies will be provided for the children.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department and/or appropriate bargaining unit, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Employment Manager, Ext. 2882.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

2988. SHEETMETAL/INSULATION SUPERVISOR - Will be responsible for supervision in the sheetmetal and insulation shops. Duties will include assigning, training, scheduling of work, and technical direction and assistance. Requires substantial experience in sheet metal or related trades and the ability to direct craftspeople in the fabrication of products using field measurements and without the aid of drawings and prints. Will be required to train and qualify for Asbestos Worker Certification and be respirator qualified. Plant Engineering Division.

2989. CLERICAL POSITION - (term appointment) Requires several years' general office experience. Knowledge of PCs is highly desirable. Will provide a variety of clerical support functions for the Employment Group including preparing travel vouchers, maintaining files, preparing letters and answering telephones. Personnel Division.

2990. CLERICAL POSITION - Requires good knowledge of office practices, demonstrated organizational abilities and excellent communication skills. Responsibilities will include acting as building receptionist, distributing mail, heavy telephones, records and form processing, filing, typing, and photocopying. Department of Applied Science.

2991. RESIDENCE CUSTODIAN - Staff Services Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

2992. WATER AND SEWAGE OPERATING ENGINEER - Requires high school or equivalency diploma and one year acceptable operating experience at a water treatment plant with facilities for filtration. Under minimum supervision lays out, constructs or installs, repairs, maintains and operates water and sewerage systems, related facilities and auxiliary equipment. Must obtain and maintain appropriate licensing or certification requirements. Plant Engineering Division.

2993. REACTOR SHIFT SUPERVISOR (3 positions) - Requires BS degree in physics, an appropriate field, or the equivalent experience and previous nuclear operating experience. Will direct, train, and coordinate the work efforts of reactor operators in performing required control, inspection, testing and maintenance of the High Flux Beam Reactor. Shift work required. Ability to obtain DOE "Q" clearance is necessary. Reactor Division.

2994. NUCLEAR REACTOR OPERATOR TRAINEES (2 positions) - Requires an AAS or equivalent experience in reactor operations as well as demonstrated mechanical ability. Previous reactor experience desired, naval reactor experience pre-

(Continued on page 4.)

[illegible] Ability to obtain and maintain DOE "Q" [illegible] required. Must be able to work rotating shifts. Reactor Division.

2995. ENGINEERING POSITIONS (2) - Requires a BS in electrical engineering or equivalent and five years' experience in the design of radiofrequency systems. A background in the design and analysis of low and high power rf systems is necessary. Experience in the design of transmitters, induction heaters or accelerator rf systems is desirable. Accelerator Development Department.

2996. ENGINEERING POSITIONS - Requires a BS in electrical engineering or equivalent and broad experience in analog circuit design. MS in electrical engineering is highly desirable. Experience in sophisticated instrumentation, low-level, high-noise immunity circuit design and signal processing is required. Booster Project. Accelerator Development Department.

2997. ENGINEERING POSITION - Requires a BS in electrical engineering or BS in computer science or equivalent, and five years' experience in microprocessor systems design. Must have strong hardware design and microprocessor software development skills. Familiarity with A/D and D/A interfacing required. Experience with multitasking real-time operating systems and networking a plus. Candidate should have experience with project planning and good communication skills. Booster Project. Accelerator Development Department.

2998. P&GA SPECIALIST - Requires AAS in commerical art or equivalent experience. Must be skilled in the traditional processes, including LeRoy lettering, paste-up, typography, layout and mechanical and isometric drawings. Experience in the use of computer workstations for creating graphics is highly desirable. Photography & Graphic Arts Division.

2999. BIOLOGY ASSOCIATE POSITION - Requires a bachelor's degree in biology, biochemistry, chemistry or molecular biology or equivalent experience. Laboratory experience in these areas and knowledge of computers highly desirable. Duties will include work on synthesis and testing of synthetic DNA endonucleases. Must be able to work evenings and weekends occasionally and be available for travel. Biology Department.

3000. TECHNICAL POSITION - Requires an AAS in electronic technology or equivalent and rf power amplifier prototyping experience. Previous experience in analog circuit troubleshooting, rf measurement techniques and familiarity with test equipment required. (Booster Project) Accelerator Development Department.

3001. TECHNICAL POSITIONS (3) - Requires AAS in electronic technology or equivalent and a minimum two years' experience in digital circuitry. A thorough knowledge of construction modifications and diagnostic procedures as well as familiarity with test equipment required. (Booster Project) Accelerator Development Department.

3002. TECHNICAL POSITION - Requires AAS in electronic technology or equivalent, good communication skills and previous experience in the following areas: production wiring, electrical/electronic assembly, printed circuit assembly and production testing. Familiarity with production layout techniques and ability to work from production drawings as well as prototype sketches necessary. Previous mechanical assembly experience, fabrication skills and ability to work with power tools desired. (Booster Project) Accelerator Development Department.

3003. TECHNICAL POSITION - Requires AAS in electronic technology or equivalent. Experience in fabrication and debugging of analog and digital circuits required. Previous instrumentation and multikilowatt power supplies experience desirable. (Booster Project) Accelerator Development Department.

3004. PROGRAMMER/ANALYST (2) - Requires a BS degree or equivalent in computer science, electrical engineering or physics and 2-4 years' experience. Will provide programming and related support services to all aspects of software projects such as: interfacing, design, coding, testing and documenting involving the development of particle accelerator control systems of Apollo workstations. Knowledge of C, UNIX and LISP would be helpful. Accelerator Development Department.

3005. PROGRAMMER/ANALYST (2) - Requires a BS degree or equivalent in computer science, electrical engineering or related technical discipline plus at least 2 years' systems programming or scientific applications experience. Work involves the maintenance, development & diagnostics of the Laboratory's major computing operating systems as well as applications programming and user interface in support of major scientific programs. Knowledge of the IBM-VM or DEC-VMS computing environments is extremely desirable. Knowledge of FORTRAN and C would be helpful. Computing and Communications Division.

3006. ENGINEERING POSITION - Requires a BS in mechanical engineering or the equivalent and several years of relevant experience. Will be responsible for the design, construction, and installation of beam line systems and experimental equipment for two test facilities. Must be familiar with machine design and mechanisms, and must have a good knowledge of shop fabrication techniques and joining processes. Some knowledge of vacuum and magnet technology would be an asset. Department of Nuclear Energy.

Motor Vehicles & Supplies

87 HONDA REBEL - excel. cond., $1,450. Jim, 874-4159.

86 CAMARO - fully loaded, T-tops, alarm, 28k mi., V6, a/t, red w/gray int., $8,900. Ext. 4962.

86 HONDA GYRO SCOOTER - low miles, like new, $500. 585-6518, 8:30 a.m.-4:30 p.m.

86 OLDS CALAIS - 2 dr., a/c, a/t, velour int., mint, $7,500. Ext. 3163 or 286-1024 after 6 p.m.

84 MAZDA 2200 TRUCK - new brakes, muffler, $1,500. 821-0686 eves.

84 PONTIAC TRANS AM - 305 h.o., 5-spd., T-tops, tinted glass, excel. cond., $7,800. 928-9109.

84 MERCURY TOPAZ - 4 dr., a/c, p/s, am/fm stereo, very good cond. 924-1967.

83 CAMARO - T-tops, 4 cyl., 4-spd., p/s, p/b, mint, garaged, 51k mi., $4,600 neg. Sue, Ext. 7235 or [illegible] leave message.

83 MAZDA PICKUP - B2000 Sundowner Sport, long bed, 5-spd., 4 cyl., excel. mileage and cond., $2,500. Ed, Ext. 2526 or 765-2017 after 6 p.m.

83 JEEP CJ7 - 4-spd., new 33" AT tires, $6,000 neg. Steve, 744-8087.

82 CHEVY S10 TRUCK - blue, V6, good tires, needs rebuilt carb., $1,000. 878-1056.

82 MERCURY MARQUIS - full power, landau roof, a/t, overdrive, cruise, 4 dr., excel. cond. Ext. 2384 or 722-8736.

82 VW RABBIT - diesel, cracked block, new radiator & muffler system, body good, asking $450. Ext. 2521 or 286-1765 eves.

82 HONDA CIVIC - 5-spd., 116k mi., good cond., $900. Tom, Ext. 4440.

81 MAZDA - 2 dr., 5-spd., a/c, am/fm cass., moon roof, excel. cond., 90k mi., $1,500. Ext. 3426.

81 MOTOR HOME - 24', low miles, new tires, excel. cond. 878-1572 or 924-5878.

81 PLYMOUTH RELIANT - 2 dr., many new parts, am/fm stereo, $500. Ext. 4486.

81 SUZUKI RS-175 DIRT BIKE - rebuilt engine, good cond., asking $299. Phil, 286-1348.

81 CAMARO BERLINETTA - blue, V6, a/c, p/s, p/w, p/l, Blaupunkt cass. stereo, clean in/out, runs well. Chris, 286-1348.

80 FORD MUSTANG - 4 cyl., new tranny, clutch & paint, asking $1,100, must sell. Brenda, 366-1860.

80 OLDS OMEGA - 4 cyl., 2 dr., a/c, p/s, p/b, am/fm cass., runs well, excel. cond., $1,500. Ext. 7103.

80 SUZUKI DS-185 DIRT BIKE - low miles, excel. cond., reliable, asking $300. Glenn, Ext. 3464 or 499-6341.

80 BUICK SKYLARK - 76k mi., good cond., rebuilt trans., $1,300 neg. Ext. 3851.

80 CHEVY CITATION - several new parts, driving cond., needs tune-up, $150. Ext. 4486.

79 FORD FAIRMONT - 6 cyl., a/t, p/s, am/fm cass., new brakes, shocks & struts, 103k mi., runs well, $850. Jeff, Ext. 2298 or 929-4974 after 7 p.m.

79 DODGE OMNI - good for parts, $150. Bruce, Ext. 2188.

79 PONTIAC GRAND PRIX - p/s, p/b, p/w, p/moonroof, a/t, V8, a/c, new radials, wire rims, exhaust & brakes, am/fm stereo cass., $2,695. 567-1358.

79 OLDS STARFIRE - 4-spd., stereo, am/fm, tachometer, hatchback, very good cond. Rich, Ext. 3405 or 751-3666.

79 BUICK REGAL - V6, a/t, p/b, p/s, body damage in rear, new tires, battery & brakes, $800. Lou, Ext. 3499 or 821-6753.

79 DODGE ASPEN - 6 cyl., a/t, $650; 78 Olds Cutlass, p/w, 350 V8, new battery, tires & wire wheels, asking $800. 289-3434, 8 a.m.-5 p.m.

78 PEUGEOT 504 - 4 dr., new am/fm radio cass., 2 new tires, best offer. 289-5770 after 6 p.m.

78 DATSUN 280Z - lt. blue, 5-spd., am/fm cass., a/c, sunroof, new engine, 4 tires & battery, mint cond., $4,000. Ext. 4931.

78 CHEVY MALIBU - V8 SW, p/s, a/c, runs well, $975. Ext. 3606 or 751-7675 eves.

78 FORD COACHMAN MOTOR HOME - sleeps 8, good cond., $7,000. Tom, Ext. 2214 or 727-0225.

77 BMW 530i - good cond., needs tune-up & brakes, $2,500. 821-0686 eves.

77 FORD GRANADA - 2 dr., a/c, p/b, p/s, runs well, $325. Tim, 281-7873.

77 VW DASHER WAGON - will run or good for parts, $150 or best offer. Augie, Ext. 3884.

77 VW RABBIT - runs well, $400. Ext. 5012.

77 FORD THUNDERBIRD - 70k mi., very good cond., $1,400. Ext. 3068 or 345-3579.

77 PLYMOUTH - runs, needs work, $100. Dave, Ext. 3093 or 281-0062 eves/wknds.

77 HONDA CIVIC - orig. owner, many extra parts, $500. Joe, Ext. 7507 or 744-3729 after 6 p.m.

77 BUICK REGAL - a/t, p/b, a/c, sunroof, new tires, 80k mi., $500; 76 Capri Ghia, a/t, 4 cyl., new tires, p/b, am/fm, 92k mi., asking $800. 929-8912.

76 DATSUN PICKUP - cap, 4 new tires, runs well, good cond. 475-3553.

75 OLDS "98" - full power, runs well, some rust, $400. 878-9551 after 6 p.m.

74 PONTIAC GRAN SAFARI WAGON - runs well, full power, a/t, h.d. trailer tow package & hitch, 455 eng., $1,400. 744-3614 after 6 p.m.

73 FORD MUSTANG - 302 eng., a/t, runs well, restorable, future collector's item, $700. 281-2092.

73 CHEVY PICKUP - 6 cyl., best offer. 878-9551 after 6 p.m.

73 DODGE DART - 6 cyl., 2 dr., a/t, p/s, runs, body good, $400. 363-6753 after 6 p.m.

71 CHEVY MINI MOTOR HOME - 350 V8, a/t, cruise control, sleeps 6, good cond. in/out, asking $4,000. Ron, Ext. 2467 or 924-8644.

71 CAMARO - white w/black int., runs, $275. Mark, 727-3673.

TIRE - 721 Firestone, new, 235/75R15, Eldo rim, $75 neg. Ernie, 588-4987.

TIRES - 4, steel belted radials, new, P235 75/R15, on Ford rims, $275. Ext. 5462 or 288-2080 after 5 p.m.

ENGINE PARTS - early Buick V6, block, heads, pistons, cranks, etc., $50/all. Bill, Ext. 2377 or 399-6168.

Boats & Marine Supplies

12' MISTREL MAUI WINDSURFER - 1986, 2 sails, 6.0 & 5.3, w/accessories, $695. Keith, 864-1967.

MAKO 238 - walk-around cuddy, twin 115 h.p. Evinrude, VHF-CB, Loran recorder, loaded, ready to go, in water. 924-5329.

TRAILER - medium size, extra wheel & winch, some rust but solid, $100. 744-9429.

SINGLE LEVER CONTROL & CABLES - for Morse twin engine, $65 neg. Ernie, 588-4987.

Miscellaneous

SUNBEAM KITCHEN CENTER - kitchen table & 4 chairs; snow skis. Ext. 7019 or 399-3228.

ELECTRIC RANGE - Caloric, 36", 6 years old, needs one top burner element, $50. Mike, 281-6070.

PORTABLE WASHING MACHINE - Sanyo, $75. Ext. 2673 or 744-8632 after 6 p.m.

OTTOMANS - convert to single beds, 1 excel., $25; 1 needs repair, $15. Ext. 4697 or 744-9423 eves.

KITCHEN SET - table w/leaf, Formica top, chrome legs, 4 chairs, wicker back w/chrome legs, excel. cond., $75. Ext. 4696.

SOFA BED - love seat, cocktail table, end table, good cond., take all, $275. 281-9412 after 5 p.m.

BEDROOM SUITE - triple dressr, armoire, night tables, headboard, Provincial, excel. cond., $850. 929-4787.

CAPTAIN'S BED - twin, on 4 drawers, 2 cabinets, 2 bookshelves, ½ closet, solid oak, stained walnut, $395. Jack, Ext. 4447 or 744-3919 after 5 p.m.

BED - full size, dresser, desk, white w/gold trim, $150; sofa, barrel chair, good cond., reasonable. Ext. 3512 or 929-4270.

CAMERA - Mamiya ZE-2, used only 3 times, $155; stadium coat, never worn, 5/6, $40. Ext. 3699.

PC MONITOR - Monochrome Tandy VM-2, excel. cond., asking $60. John, Ext. 3292 or 286-1348.

COPIER - Sharp, 2 years old, tabletop, excel. cond., orig. $1,300, asking $600. 226-1828 after 5 p.m.

PUBLIC ADDRESS SYSTEM - for large room, 2 large J.B.L. speakers, power amp, effects, $2,500. 369-2414.

PC DESK - 6 shelves, glass front, walnut finish, excel. cond., $125. 286-3863 eves.

SOUND MOVIE CAMERA - super 8mm sound projector, screen, $75. Jim, Ext. 4696.

MONOCHROME DISPLAY - Amdek 310A driver card, $100; clock calendar card for PC/XT, $15. Ext. 3458 or 369-2504.

AIR CLEANER - powerful, tabletop, electronic ionizing unit, clears smoke, pollen, etc., excel. cond., orig. $129, sell for $35. 654-5888.

METERS - NP400L Acutum; H P 415P SWR Shallcross milliohm meter, 670A w/documentation, $20/each. Rich, Ext. 4172.

CERAMICS EQUIPMENT - 500 molds & 2 kilns, make offer. Ext. 4251.

PET KENNEL - used once, 2'x2½'x3', airline approved, orig. $120, sell for $80. 474-3837 (answering machine).

EXERCYCLE - Matsuri Exerciser, w/resistance gauge & timer, $100. Ext. 2004.

YORKIES - 8 weeks, 1 male, 1 female, AKC father, mother purebred but no papers, $100/each. 924-0496.

BOWS - Golden Eagle Cam Hunter, R.H., 30" draw, 50-60 lbs., $175; Bear Whitetail, R.H., 30" draw, $75. Bill, Ext. 2377.

DOG COLLAR - new, 20"; dog tie-out & runner chain, 15', new. Ext. 2950.

EXERCISE MACHINE - Solo Flex, like new, $500. 277-3805.

VIOLIN - full size, 1912 German Imperial Amati-style, carved scroll, bow & case, $650; clarinet, wood, LeBlanc Noblet, $195, 751-5868 eves.

FIREPLACE COVER - polished brass, glass doors, fits up to 38"wx28"h, $35. Ext. 2679 or 472-6922.

OIL BURNERS - 2, used, good cond., $10 & $20. Walt, Ext. 2907/2241 or 698-0576.

HOT AIR BURNER - w/Beckett head, 2 years old, must sell whole unit, $375. 588-4703 after 5 p.m.

WATER PUMP - portable Homelite, 8.3 G.P.M.; Briggs & Stratton, gasoline engine, good cond., $100. Henry, Ext. 3817.

SNOW THROWER - Toro, 8 h.p., electric & manual start, $525. 475-7366.

TOPSOIL - fine screened, delivered, $18/per yard; also peat moss, sand, gravel, blend. 924-9427.

SEWING MACHINE - Singer Zig-Zag, buttonhole attachment, accessories, $25. Al, Ext. 5128.

LAWN MOWER - Lawn Boy super deluxe, 21" cut, self-drive, like new, $225. Dan, Ext. 4987 or 698-7322.

WALLPAPER - beige design, brand-new, 5 rolls, $15. Susan, Ext. 7716.

PIZZA OVEN - commercial, electric, 24x18, excel. cond., asking $100. Tony, 698-9274.

HOT WATER HEATER - electric, 52 gallon, 1½ years old, $80. 722-4821.

WINDOW - Andersen CR15-2, new, damaged flanges, 5'⅜"h x 2'10⅝"w, orig. $379, sell for $300. 475-1916.

STORM DOOR - 30x79½, $25. Bill, 472-4684 after 6 p.m.

SNOW THROWER - Sears Craftman, 32", electric & manual start, used 2 seasons, orig. $1,200, asking $550. Ext. 7904.

AVON COLLECTION - 100 pieces, $100; Jim Beam collection, 30 pieces, $100; 5 old painted oak chairs, $50. 878-6637.

SUEDE COAT - new, rust color, size 12, $50; Hounds Tooth cape, $10. 744-2203.

TICKETS - Doo Wopp, 7:30 & 10:30 p.m. shows, Chimes, Cleftones, Delvikings, Wrens & Bluestars, Nov. 19, $17.50/each. D. Vail, Ext. 2067 or 2021.

U-PICK PUMPKINS - half-price sale, Sat., Sun., 9 a.m.-6 p.m., Beaver Dam Rd., Brookhaven Hamlet.

Free

DOG - German Shepherd mix, female, needs home, very affectionate. Ext. 3955 or 345-5685 eves.

CAT - 6 months old, dark gray, very loving & playful, neutered. Ext. 3744.

Yard Sales

SHIRLEY - Boy Scouts, Nov. 11, 12 & 13, 410 River Road.

RIDGE - 12-family block sale, Oct. 29 & 30, Highview Lane, follow signs, 10 a.m -5 p.m.

MILLER PLACE - Oct. 29, 10 a.m.-4 p.m., North Country Road to Honey Lane to 3 Magnolia Lane. 473-9016.

Lost & Found

FOUND - man's English-type racer bicycle, in area of Bldg. 510E. Gerry, Ext. 3751.

Car Pool

BELLPORT - 5th member wanted for established car pool. Liz, Ext. 2346, or Ed, 286-7539 after 6 p.m.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed, sex or national origin of the applicant.

For Rent

BELLPORT VILLAGE SOUTH - furnished, 3 bdrm., 2 bath, no pets, non-smoker, Nov. 1 to June 30, $800/mo. 286-0466 or 286-9389.

JAMESPORT, S. - 1 bdrm. cottage, l/r, eik, porch, bath, part. furn., near beach, 25 min to Lab, suitable couple, no pets, $475/mo. + util. Walt, Ext. 2907 or 698-0576.

MIDDLE ISLAND - 3 bdrm. house, 2½ baths, 5 appl., carpet, garage, incl. pool, tennis & maintenance, $1,500/mo. +. 928-3728 eves.

MOUNT SINAI - 1 bdrm. apt., water view w/private deck, avail. immediately, $825/mo. incl. util. 473-1761.

RIDGE - 5 bdrms., 3 baths, l/r, d/r, den, playroom, 1-car gar., poss. M/D, $1,250; 3 bdrms., 2 baths, l/r, d/r, den, 1-car garage, $900, both available Nov. 1, no pets, 5 min from Lab. Ext. 5076 or 744-4615.

RIDGE - 3 bdrm. ranch, 1½ baths, country kitchen, l/r, all appl., incl. dishwasher, w/d, new carpet, fenced-in yard, family neighborhood, 5 min. from Lab, $850/mo. 744-1110 or 744-8632 after 6 p.m.

ROCKY POINT - large studio apt., new, lots of space & cabinets, priv. driveway & fenced yard, nice location, 5 min to Lab, $425/mo. + electric. Ruth, 744-5077.

ROCKY POINT - 3 bdrm. house, 2 baths, newly remodeled in/out, private, $1,100/mo. +. 928-6898 eves.

WADING RIVER - room for rent, private entrance, kitchen, quiet area. 929-4477.

CATSKILLS - 3 bdrm. chalet, w/sleeping loft, fully furn., near Windham & Hunter Mts., great for skiing, hunting, & fall foliage. Bea, Ext. 3642 or Kay, Ext. 4501.

HILTON HEAD, SC - 2 bdrm. condo, sleeps 6, tennis, golf, beach, pool, Oct. & Nov. $350/wk. 585-9149.

For Sale

EASTPORT - 2 bdrms., large l/r, kitchen, full bsmt., 100x120 beautifully landscaped property, near schools and shopping, $115,000 firm. Terry, Ext. 2232 or 874-4159 after 5:30 p.m.

PORT JEFFERSON STATION - 5-bdrm. contemporary hi-ranch, M/D, 3 baths, 2 kitchens, gar., vinyl siding, fenced yard, ¼ acre, mint, $174,990. 331-1523 eves.

RIDGE - 2 bdrm. townhouse, central a/c, appl., 5 min. from Lab, avail. 1/1/89, $97,000. Ext. 4676.

ROCKY POINT - 4 bdrm. tri-level, 2 bath, eik, l/r, f/r, TV/sun rm., utility rm., attic, garage, patio, shed, outdoor shower, carpeted, full appl., large closets, mint cond., $165,000. 821-0691.

SHOREHAM - 4 bdrm. 2½ baths, Colonial, ⅓ + acre, low taxes & heating bills, set up for large family, SWR schools, $175,000. Barbara, 744-0960.

SHOREHAM - 3 bdrm. ranch, carpeted, eik, w/w, wood/coal stove, pool, priv. fenced backyard, 2½-car gar., low taxes, SWR schools, clean, $135,000. 744-9677.

ROCKLEDGE, FL - 2 bdrm. house, 2 baths, 2-car garage, fam. rm., porch, w/w carpet, shades, some drapes, appliances, $64,500. 407-631-2840.

ADIRONDACKS - 5 acres, 290' waterfront property, swimming, boating, fishing, terms avail. 288-5576.

FREEHOLD, NY - Greene Co., 5 acres, 700' road frontage, near skiing, 2 golf courses, ½ hr. off NY Thruway, will subdivide, 30 mi. w. of Albany. 584-6729.

POCONO, NY - ½ acre property in Masthope PA, on-site skiing, boating, horseback riding, etc., 289-7218.

HILTON HEAD, SC - 3 bdrm. condo, sleeps 8, 2 baths, washer/dryer, wet bar, 6 tennis courts, 3 pools, whirlpool, golf, ocean view, asking $89,000, will rent. 929-8912.

Wanted

CEMENT MIXER - wet saw, bobcat, to buy or rent. Tony, 698-9274.

MICROSCOPE - good quality, for young student. Ext. 4487 or 363-6908.

KILN - front loader preferred. Ted, Ext. 4589 or 475-8581 eves.

CAP - for Toyota short bed pickup. 286-0795.

CHILD CARE - older woman preferred, $5/per hour, Port Jefferson area. Edward, P.O. Box 546, Upton, NY 11973.

OLD LAWN MOWERS - gas, complete machine of any type. Dan, Ext. 4987 or 698-7322.

ITEMS FOR YARD SALE - Boy Scout, can arrange pick-up. Ext. 4243.

CHILD CARE - after school, for 8 & 9 year olds, bus transportation from Setauket Elem. School. 751-8671.

MINERALS - mineral collections, mineral books (old), any language. Plotkin, Ext. 7974 Wed. only; 798-2887.

RECORDS - 45 RPM & some LPs of the 50's & 60's era. Frank, Ext. 3120.

CHAIR CANING - our chairs need recaning. Bob. Ext. 4044.

OLD BARBIE DOLLS - 475-4199.

DRIVER'S MANUAL - for 1969 VW bug, to buy or copy. Liz, Ext. 2346.

In Appreciation

It was my good fortune to have been employed by BNL for 27 years and to have made so many good friends at the Lab. I thank all who attended my retirement party on Oct. 7, and I missed those who couldn't make it, but sent their regards. Thank you one and all — I really appreciated your warm wishes. — Ann "K" Kuczynski

Classified Ad Policy Deadline is 4:30 p.m. Friday for publication Friday of the next week.