

Engineering Data Bank Added To Library

An Engineering Data Bank is the newest information service of the Research Library. It contains engineering evaluation and qualification test reports, parts and materials specifications, manufacturing processes, failure analysis data, and other related engineering data.

Included also are reports on specific engineering methodology and techniques, air and water pollution reports, and alternate energy sources. The Data Bank is available on 16 mm microfilm and is supplemented with a computerized and hard copy index, abstracts, and hard copy summary sheets.

It is a service of the Government-Industry Data Exchange Program (GIDEP) and sources for most of the information are aerospace and military defense programs. Currently, there are 600 government and industry participants in GIDEP, a program which seeks to reduce or eliminate expenditures of time and money by making maximum use of existing knowledge.

Staff members who wish to use the service should contact Madeline Windsor, on extension 3487, at the Research Library.

One representative to GIDEP is appointed by each participating agency. The

BNL representative is Bill Harrison who can be reached on extension 4774. Through him, certain other special services are available. For instance, the Urgent Data Request system allows him to query all other GIDEP participants on specific parts, components, material and process data, or solicit critical information not available from other sources.

In addition, Harrison has a roster which contains the name, organization and telephone number of all GIDEP representatives, as well as points of contact within each major electronic parts manufacturer and electronics test equipment manufacturer in the U.S. This gives staff members the opportunity to obtain assistance in resolving technical problems, or to obtain additional details as required for interpretation of a report.

Harrison also has information on the ALERT system which provides GIDEP participants with identification and notification of actual or potential problems, non-random or failure trends on parts, components, materials, manufacturing processes, test equipment, or safety problems.

Setlow Heads Biology: Shaw Returns To Research

Richard B. Setlow, a Senior Biophysicist, has been appointed Chairman of the Biology Department, effective October 15 for a period of five years. He succeeds Elliott N. Shaw, who will now return to full time research.

Setlow was one of the pioneers in determining the effects of radiation on DNA molecules, and his later research focused on the repair mechanisms of DNA damaged by chemicals and radiation. Most recently he has headed a group concentrating on the link between ultraviolet light and skin cancer. Dr. Setlow plans to continue this research on behalf of DOE and the National Cancer Institute, although his new administrative duties will, of necessity, curtail these activities.

Because of the excellence of its research, Setlow says, the BNL Biology Department is considered by many to be the best of such departments in the national laboratories. He considers his main job as chairman "to preserve that excellence and to convince DOE that the department continues to be relevant to DOE missions."

He notes that the Biology Department is very strong in using physical techniques to analyze biological structure and functions, and cites four in particular that are also much in demand by outside users. Neutron diffraction of biological structures is a national function and is a prime Biology program. Others are the Scanning Electron Transmission Microscope; the nuclear magnetic resonance machine to determine details of molecular structure; and when the NSLS is complete, the Biology staff will be making heavy use of both rings. Sophisticated optical equipment available includes large monochrometers and advanced circular dichroism. The Biology Department also does continuing basic research on how plants, animals, viruses and molecules react and work.

Setlow is no stranger to administrative chores. He came to Brookhaven in 1974 after 14 years as a Biophysicist with Oak Ridge National Laboratory, where he served first as a Group Leader, and from 1969-73 as Scientific Director of Biophysics and Cell Physiology.

He has an A.B. from Swarthmore and received his Ph.D. from Yale in 1947. For the next 18 years he taught physics and biophysics at Yale until he began his research career at ORNL. In Tennessee, he also held an appointment for seven years as Professor of Biomedical Sciences at the University of Tennessee, and, for two years, directed the UT-OR Graduate School of Biomedical Sciences.

Among numerous other organizations, Setlow is a member of the National Academy of Sciences. Currently, he is a member



Richard Setlow

of an NRC committee to study the feasibility of satellite power systems, and is chairman of another NRC committee on the biological effects of non-ionizing radiation.

His wife, Dr. Jane K. Setlow, is on the scientific staff of the Biology Department. They reside in Shoreham, and are the parents of four grown children.

Elliott Shaw came to Brookhaven in 1965 as a Senior Biochemist and was appointed chairman of the Biology Department in 1974. "I am pleased," he says, "that during my tenure, the department was able to recruit a considerable number of young, new project leaders. This department is a stimulating place for research because it is very well equipped with modern instrumentation and has enthusiastic investigators."

On Monday, Shaw will return to his laboratory to spend full time on his studies of protein chemistry, proteolytic enzymes and synthetic inhibitors of proteases. In more general terms, Shaw describes what this basic research hopes to achieve. "The proteins in our bodies are continually breaking down and the amino acids are reused to make new proteins, thus permitting our bodies to adapt to different circumstances. This process occasionally gets out of control as in the case of emphysema, or in general growth processes resulting in cancerous cells. My research is devoted to finding out the pathways of normal protein turnover. In discovering new ways to measure these processes, we can detect when they go awry. Then we can devise therapeutic agents to block the unwanted side effects."

Dr. Shaw received his Ph.D. from M.I.T. as an organic chemist, and subsequently was engaged in various research activities with the Squibb Institute for Medical Research and the Rockefeller Institute of Medical Research. Before joining the Brookhaven staff he taught biochemistry for eight years at Tulane University, and his research there was primarily concerned with enzyme function. From September 1977 to June 1978, he spent a sabbatical at the Clinical Research Center, Harrow, England, where his research was concentrated on white blood cell metabolism. He is currently an Adjunct Professor of Biochemistry at SUNY, Stony Brook.

He and his wife Charis, and their two children, reside in Shoreham.

—photos this page by Humphrey



Combustion Researchers Meet At BNL

This week, BNL's Chemical Sciences Division hosted a three-day conference on combustion research. Among the participants were (left to right): Jack Preses, DOE, Assistant Director of the Chemical Physics Program; James Muckerman and Bruce Klemm, BNL scientists who organized the conference; and Bill Adams, DOE, Director of the Chemical Physics Program, Office of Basic Energy Sciences.

Close to 70 researchers from all over the country came to exchange information and ideas and present their programs for re-

view by DOE sponsors from the Office of Basic Energy Sciences.

Since the research is basic, common combustion devices such as gas turbines or furnace burners are not studied. Instead, these investigators are concerned with fundamental combustion chemistry. They make theoretical calculations, as well as perform experiments involving chemical diagnostics and rates of combustion reactions. A main goal in this research is to gain a better understanding of combustion systems so that, eventually, efficiency can be improved and pollutant emissions reduced.

Forest Project Ends

All research projects have an objective, and when that goal is met, the project is terminated. Last month, the cesium¹³⁷ gamma radiation source in the Brookhaven Irradiated Forest was inactivated, bringing to an end a Biology Department project which began 18 years ago.

Initiated in 1961 in a stand of pine-oak forest, the experiment was intended to appraise the effects of ionizing radiation on natural plant communities. The radiation systematically reduced the forest's structure and established a series of zones around the source. With time, the zones expanded and became more pronounced. Larger and taller plant forms were more sensitive, and shorter, lower-growing forms were more resistant.

In certain circumstances, invading species not common in this type of forest seeded naturally. A primary reason for this additional growth was that as taller plant forms died off, more sunlight reached the forest floor,

so species that cannot tolerate shade conditions were able to propagate. Poplar, sedge grass, sweet fern and wild cherry are plants particularly resistant to stress and able to grow in disturbed areas. They are four of the invading species that repopulated certain zones in the Irradiated Forest.

An important observation noted by the researchers is that the effects of radiation produced a change in the vegetation that is recognized immediately as the same pattern produced by many other disturbances, including repeated burnings, mechanical disruptions, and other toxins.

The experiment has yielded much information about the ecological effects of radiation and also provided insights into the reaction of ecosystems to gradients of stress from other, natural insults. Although a specific time scale is difficult to predict, department biologists say that the affected area will gradually return to a mature forest.



Elliott Shaw

Fire!

As part of National Fire Prevention Week, October 7-13, the Fire and Rescue Group put on a series of demonstrations around the Lab site. At the firehouse on Monday, different types of fire extinguishers and fire fighting techniques were discussed, and volunteers practiced extinguishing paper fires and gas fires. The firemen had a good tip about fighting a gas or oil fire: move in close and shoot at the base. Above, Firefighter Frank Leon helps volunteer Susan Carlsen master this technique. — photo by Humphrey

Arrivals & Departures**Arrivals**

Parviz Farahzad.....Nuclear Energy
Sheree L. Flippen.....Ph. & Gr. Arts
Edward I. Hololob.....Plant Engrg.
Salvatore Marino.....Accelerator
John A. Scheblein.....Accelerator
Michael W. Torelli.....Medical

Departures

Antoine Knezovic.....Accelerator

Plants Have Many Uses

For plant fanciers, the New York Cooperative Extension has advice on ways to use plants to influence a home environment.

To make an area cooler, provide shade, plant ground cover, and prune lower growth for better air circulation. To make an area warmer, maximize solar exposure; increase exposure to paved areas, untilled ground, rock or masonry surfaces or south slopes; create sun pockets; establish wind breaks and cold airflow diverters; and use structural or plant "ceilings" to reflect outgoing radiation at night.

Humidity can be increased by using overhead plantings, which slow evaporation and add transpiration. Humidity can be decreased by eliminating windbreaks, improving the drainage system, paving ground, and increasing exposure to sun.

To reduce light levels, use dark surfaces to absorb more solar heat and reduce reflection, use vines and espalier to cover surfaces, and provide shade. To increase light levels, prune trees to increase light penetration and plant deciduous trees for increased winter light.

AUI Scholarships

Applicants for the AUI Scholarships should note when arranging to sit for the Achievement Tests, that there is a choice of English Composition Test — one with an essay section, and one without an essay section. Either test will be acceptable to satisfy the English Composition Test requirement for the AUI Scholarship Program.

In addition, candidates are reminded of the tutoring sessions which will begin at 7:30 p.m., October 10, in Berkner Hall.

BERA Sales Office

Located in the Cafeteria, the BERA Sales Office (Ext. 3347), is open weekdays between 9:00 a.m. and 1:00 p.m. and offers the following services:

Film Processing and Supplies

The film service offers employees a discount on processing, film, flash bulbs, and batteries. Cameras, albums, frames, and other photographic equipment may also be purchased. A receptacle is available for dropping off film to be processed during hours when the office is closed.

Ticket Sales

Available now are tickets for the Metropolitan Opera and Islanders Hockey. Also offered, free of charge, are discount coupons for Walt Disney's Magic Kingdom and Disneyland, as well as Great Adventure.

Miscellaneous Merchandise Sales

At the present time, assorted greeting card and Cooking Exchange cookbooks may be purchased.

Sweaters Are In . . . Space Heaters, Out

All BNL employees should be aware that the following Federal Emergency Building Temperature Restrictions are in effect:

- Interior space temperature will be maintained at no higher than 65° F.
- The use of portable auxiliary space heaters is prohibited.

It is Laboratory policy to comply with these regulations and employee cooperation is requested. Employees are encouraged to dress with the maximum 65° F temperature in mind so as to reduce discomfort.

The Department of Energy estimates that national compliance with these regulations will conserve up to 375,000 barrels of oil per day.

Needlecraft Wanted

The BNL Hospitality Committee's fall Tea and Sherry Party will be held Thursday, November 15, from 3:30 to 5:30 p.m. in the North Room of the Brookhaven Center. The theme of this Tea will be "The Needle and I," and will feature a display of various items illustrating different types of needlecraft such as crewel, needlepoint, embroidery, applique and Japanese decorative stitching. Items that have been knitted or crocheted will also be displayed.

If anyone has a sample of any of the above and would like to lend it to the Committee as an exhibit for the Tea, it would be greatly appreciated. Please call Jane Love, 286-1136, or Leah Gasser, 744-8334, for further details.

Singers Take Note

Under the direction of John Weeks, the BNL Singers are rehearsing every Tuesday at noon in Berkner Hall. If you are interested in singing a wide variety of songs, including madrigals and show tunes, please come and join the group. If you need further information, call either Peggy Judd or Carol Kraner on Ext. 2540.

Technology On TV

Employees may be interested in a TV series currently being aired on Channels 13 and 21. Connections: An Alternative View of Change is a series exploring the development of technology and its impact on the world.

The first show used the NY blackout of 1965 to demonstrate one of the series' main thesis: man is dependent on technology. Future programs, which investigate how technology has shaped the world, will trace "clues" across time that connect such diverse inventions and technological developments as the waterwheel and the computer, and astrology and the production line.

Show times are: Channel 13, Sundays at 8:00 p.m., repeated Tuesdays at 11:00 p.m.; Channel 21, Tuesdays at 6:30 p.m.

A Note Of Explanation

A recent article appearing in several Long Island weeklies has apparently caused confusion on the part of some Lab employees. The article dealt with BNL's 1978 Environmental Report, and stated that concentrations of strontium-90 which exceed the EPA drinking water standards have been found in a sampling well at the Lab's waste management area.

This is true. The concentrations are due to an inadvertent injection of old fission products in 1960 and have been closely monitored since that time.

However, the Laboratory's drinking water wells are located west to northwest of the waste management area, "upstream" in terms of groundwater flow. They are not affected by the zone of contamination at the waste management area. The drinking water wells are sampled bimonthly, and have been for many years. At no time have they shown signs of any strontium-90 due to Laboratory operations.

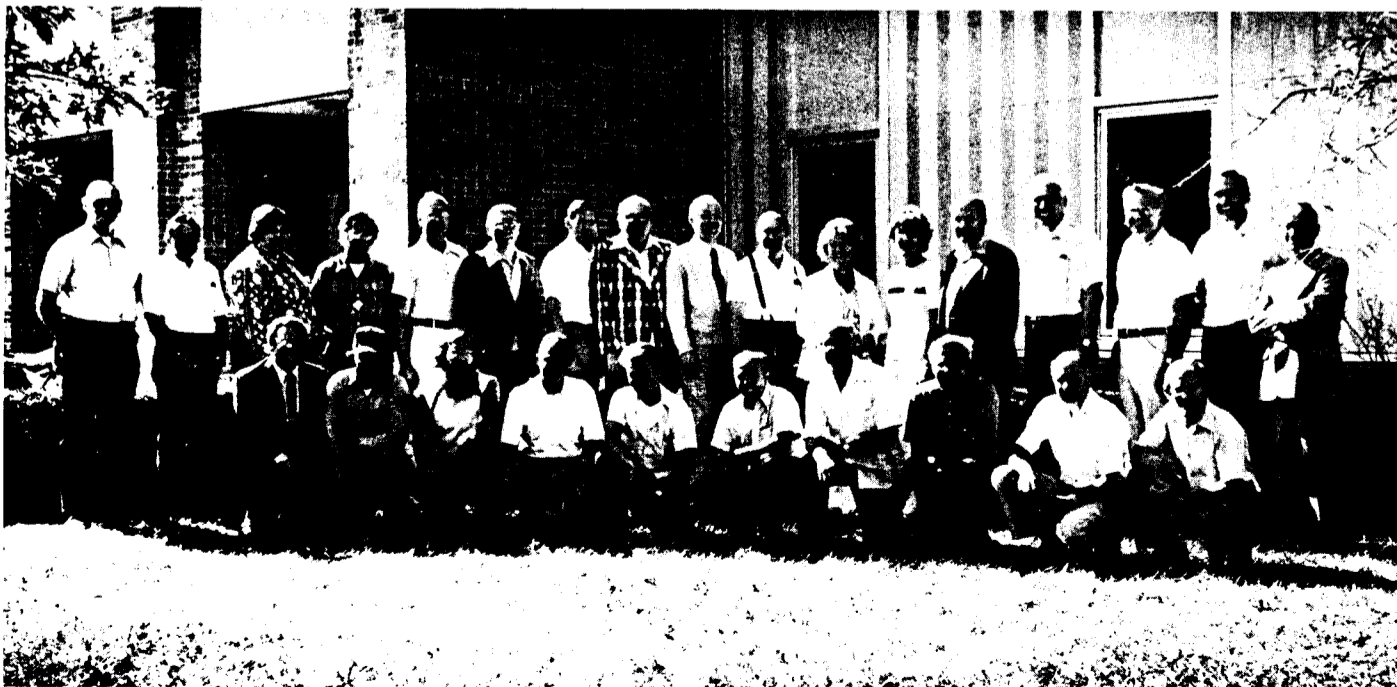
A Delightful Benefit

Swedish singers in a scene from the Ingmar Bergman film adaptation of Mozart's "Magic Flute," which will be screened at Berkner Hall on Tuesday, October 16, at 8:30 p.m. Easily the most lighthearted of Bergman's recent films, the "Magic Flute" has been described as "a beautiful sunny masterpiece that is the most important popularization of opera yet seen." This fund-raising event is for the benefit of BERA's Concert Series. A minimum contribution of \$3 per person is suggested, and whatever you donate is tax deductible.

Reports Available

The following reports are now available to the Laboratory Staff and to Affiliates of the DOE, AUI, and NRC. Others may purchase the reports from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. Staff members should call Ext. 3484.

| | |
|---|--------|
| BNL 50814 | \$4.50 |
| The Effect of Energy Conservation on Environmental Emissions: Utility, Residential, and Commercial Sectors. P.D. Raskin, et al | |
| BNL 50831-V | \$9.00 |
| Design Guide for Category V Reactors Transient Reactors. W.J. Brynda, et al | |
| BNL 50838 | \$9.00 |
| Conceptual Design and Economic Analysis of a Light Water Reactor Fuel Enricher/Regenerator. FY 1978. P. Grand, et al | |
| BNL 50887 | \$7.25 |
| Documentation of an Interactive Program for Projecting Space Heating Energy Demand (IPPSHED). D. Schneider | |
| BNL 50948 | \$7.25 |
| Flash Hydrolysis of Coal — Quarterly Report No. 6 for the Period April 1 to June 30, 1978. M. Steinberg, et al | |
| NUREG/CR-0707 | |
| BNL-NUREG-50965 | |
| Evaluation of Isotope Migration — Land Burial Progress Report No. 9. P. Colombo, et al | |
| BNL 50970 | |
| Vol. I | \$9.25 |
| Automated Energy Management Systems for Small Buildings. Volume I — Technical Document. Honeywell, Inc. | |
| BNL 50970 | |
| Vol. II | \$9.25 |
| Automated Energy Management Systems for Small Buildings. Volume II — Market Assessment Reports, Phase I and II. Honeywell, Inc. | |

Accelerator Department Service Awards

On September 19, Dr. Lyle Smith presented the 30, 25, 20 and 10 year Service Awards for the entire year to the eligible members of the Accelerator Department. Those who attended are pictured above. Standing: Bryan Culwick, Don Davis, John Czachor, Frank Heimburger, Al Prodell, Ted Arns, Roger Baker, Emil Bernatzky, Ed Dexter, Peter Montemurro, Mary Hughes, Helen Keeley, Rod di Girolamo, John Grisoli,

Bob Dryden, Joe Bauernfiend, Mike Koson. Kneeling: John Agostine, Ron Picinich, Doug Gillette, Joe Bamberger, Arthur Dunn, Lou Addressi, Bob Wessel, Jack Bittner, Carl Goodzeit, John Post. Not present for the picture: Don Brown, Gerry Dupre, Steve Eiseman, Bob Gibbs, Bill Klingenberg (Ret.), Fred Kuhn, Don Lazarus, Alexander Park, Irv Polk, Julie Spiro and Harold Worwetz. —photo by Humphrey

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CARL R. THIEN, Public Relations Officer

Mountain Club

A placid, Autumn canoe trip on the Carman's River is planned for Saturday, October 20th. We will be plying the upper and lower Yaphank lakes plus the stretch through South Haven Park. Call Ray Tessmer at 286-3934 for reservations. The cost for non-members is \$3 per canoe.

For those into backpacking, a trip to Mount Marcy in the Adirondack Mountains is scheduled for the weekend of Nov. 10-12. Call Steve Spencer (Ext. 3401) or John Elmore (Ext. 3651) for more details.

Coming events will include (weather permitting) cross country skiing, a hike across the frozen Great South Bay, rock climbing, and kayak instruction.

Volleyball

Team rosters are now being accepted for the upcoming volleyball season. The Mixed league will continue on Monday evenings and a new Open league, will play on Wednesday evenings. The new league will be open to employees and spouses but will continue to use USVBA rules as in the past. Both leagues will be tentatively divided into A and B divisions. Rosters must have a minimum of eight names and must identify a captain and a co-captain. There will be a meeting on Oct. 22 at noon in Berkner Hall, Room A, to elect officers and discuss the upcoming season. Bring rosters to this meeting, or send them to K. Sutter (Mixed) Bldg. 703, or J. Usher (Open) Bldg. 129.

Bowling

Purple & White League

Gail Thompson rolled a 215 for high game for the ladies. High game for the men was a 242 by Jim Griffin. Other good games were Betty Jellett 208, Sharon Smith 176/181, Marge Belligan 178, Gerrie Riker 180/170, Ben Belligan 224, Ed Sperry 204, Bill Sells 203.

Pink League

Millie Connelly had a 167/180/473, Deb Johnson 171, Marie Grahn 166 and Renee Flack 160. The Lickety Splits are in first place by four points.

Red League

This Isa Team won 8-3 over the Phou-bars. A great night for R. Barberich (221-221) 637-700 series. E. Sperry IV had a 200. The Old Timers also took 8 from the Blue Jays. R. Adams (203) grossed 613. The Sandbaggers won 8-3 against the Strangers. E. Meier (208) grossed 646 pins, K. Riker (206) 634 gross.

The Designers took 8 from the Old Timers II. E. Sperry had 630 gross. The Freon Loaders won 7-4 over the Pinball Wizards. V. Bilms (224) grossed 666, F. Stahman had a 207. The 76'ers came away with 4 against the Trouble Shooters. R. Larsen had a 204.

Blue & Gold League

High game was rolled by Rich Scheidet (214), 735 gross. Rick Murgatroyd 559 series, 676 gross. Nick Masciopinto had a gross series of 645 and Carl Jacobs, 627. For the women, "Mike" Milian had a gross of 614 and high game went to Mary Scheidet with a 152. Mickey Haller shot a 151. Hats off to Larry Musso for converting the 4-7-10 and Bud Pollock on his 6-7 pick-up.

Openings are still available for substitutes and alternates in all leagues. Interested bowlers should call Richard Larsen on Ext. 3810.



1979 Tennis Champs

Topping this picture and topping all events is Marie-Christine Saitta, Photography and Graphic Arts, who made a clean sweep of all events open to women, an unprecedented occurrence in most players' memories. Besides taking women's singles, Saitta paired with Mona Rowe in women's doubles and Niels Schumburg in mixed doubles to capture those two titles. Since coming to the Lab in 1970, Saitta has consistently played well in BNL tournaments,

winning several events through the years.

Pictured left to right are: Harvey Goldman (Physics), men's singles; Mona Rowe (DO); Marie-Christine Saitta; Arnold Sandberg (ISABELLE) who paired with Robert Meier (ISABELLE) in men's doubles; Niels Schumburg (Applied Math); and Robert Meier. Meier also won the men's singles consolation tournament, which included players who lost in their first or second rounds.

Programming Class

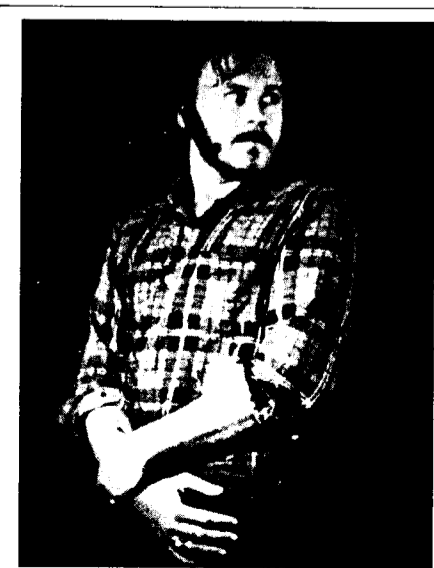
A course in FORTRAN programming will be conducted in the Tutorial Training classroom, Bldg. 179, if a sufficient number of employees are interested. The weekly classes will last from one to one-and-a-half hours and will be held during working hours. Those intending to take the course must have permission from their supervisors. For information, or to register, call Robert D'Angio at Ext. 2878 in Personnel.

SBRA Bicycle Rides

The locations given are where the ride starts at 9 a.m. unless stated otherwise.

- | | |
|---------------|---|
| Sat., Oct. 13 | Georges Bike Shop, Nesconset Hwy, Pt. Jeff. Station. |
| Sun., Oct 14 | Toppings Path, LIE exit 71 (Edwards Ave.) for a tour of Manorville. |
| Sat., Oct. 20 | Dunton Ave. Cycle Shop, East Patchogue. |
| Sun., Oct. 21 | Tour of Shelter Island, two rides offered. South Jamesport Boat Basin (Peconic Bay Blvd.) 8:30 a.m. sharp or Greenport Ferry Landing 11:00 a.m. |
| Sat., Oct. 29 | Smith Haven Mall, main entrance by the bank, for ride to Hecksher State Park. |
| Sun., Oct. 28 | Stony Brook railroad station, Rt. 25A. |

For additional information contact Bob Monaghan, Ext. 4824/4688 or 744-5098.



BERA's New Play Is In Rehearsal

Dennis Weygand, as Dave the doleful student who lives upstairs, in a scene from Simon Gray's contemporary adult comedy, "Otherwise Engaged." The BERA Theatre Group is now in rehearsal for this, their first performance of the season, opening at Berkner Hall on November 2.

To find out about some of the shenanigans Dave is observing, note future issues of the *Bulletin*.

—photos this page by Humphrey

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, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants.

The determination of the best-qualified candidate for available positions will be based upon education, experience and other job-related criteria. Such factors will be evaluated and measured against the demonstrable requirements of the available vacancy, as well as the Laboratory's Affirmative Action objectives.

The Laboratory is committed to a policy of Equal Opportunity in its selection and placement of personnel. Its objective is equality of opportunity in employment, training, and promotion without regard to race, color, religion, national origin, sex, age or handicap.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all nonscientific 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, as indicated below. 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 Personnel Placement Supervisor, Ext. 2882.

POSITIONS OPEN: Scientific. The following staff positions are open. Candidates may apply directly to the department representative named, or through the Office of Scientific Personnel, Ext. 3338.

POSTDOCTORAL RESEARCH ASSOCIATE - Cell physiologist for multi-disciplinary program in neuroscience. Contact: A.P. Wolf, Chemistry Department.

POSTDOCTORAL RESEARCH ASSOCIATE - To investigate processes of collisionless intramolecular relaxation, radiationless decay, and intermolecular energy transfer. Contact: D.M. Brenner, Chemistry Department.

LABORATORY RECRUITMENT: Opportunity for present Laboratory employees.

1119. SECRETARIAL POSITION - Requires excellent administrative, secretarial, and communication skills. Knowledge of laboratory procedures and policies is highly desirable. Will function as primary secretary for group leader; will serve as office manager for clerical staff members. Duties will include the handling of personnel and budget-related matters. Department of Energy and Environment.

1120. SECRETARIAL POSITION - Requires AAS in secretarial science or equivalent experience performing diverse secretarial duties including technical typing. Will work with division secretary in processing scientific papers, travel vouchers, and general correspondence for scientific and professional staff. Instrumentation Division.

1121. FIREFIGHTER - Previous experience with firefighting and emergency medical technician training is highly desirable. Must be willing to work shifts at the completion of a 13 week training period. Safety and Environmental Protection.

OPEN RECRUITMENT: Opportunity for present Laboratory employees and outside applicants.

1122. LIAISON ENGINEER - BS or equivalent in mechanical or marine engineering. Experience in the coordination of large construction projects preferred, recent graduates will be considered. The position entails project evaluation and the coordination of a variety of technical functions associated with water and electrical power distribution systems, electromagnets, radiation shielding and other equipment used to support the accelerator research program. Accelerator Department.

1123. BIOLOGY ASSOCIATE - Requires BS/MS in Biology or Chemistry or equivalent with experience in tissue culture techniques. Will maintain tissue cultures, assay virus yields and purify viral proteins. Biology Department.

1124. CLERICAL POSITION - Requires good typing skills and ability to communicate. Responsibilities will include general clerical duties including taking telephone messages, handling mail and light technical typing. Chemistry Department.

1125. KEYPUNCH OPERATOR (Part-Time, Temporary) - Requires working knowledge of keypunch operations and ability to work evening hours. Will punch and verify data cards using IBM 029 and IBM 129 equipment. Administrative Systems and Data Processing.

1126. MASTER WELDER - Requires ability to be certified in T.I.G., M.I.G. and arc welding procedures. Central Shops Division.

1127. ADMINISTRATIVE/BUDGET SPECIALIST POSITION - Requires a Bachelor's degree in accounting or business administration or the equivalent experience in budget preparation and control. Will report to Department Administrator and be responsible for the preparation of statistical and narrative materials as it relates to a department budget. Computer programming experience is desirable. Department of Nuclear Energy.

Autos & Auto Supplies

73 BUICK ELECTRA - all pwr, \$400; L78-15 snows, \$50/pr. Ext. 7750, 345-3104 eves.

