BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

BNL's 1986 Environmental Monitoring Report: Lab Impact Well Below Guidelines

In 1947, when BNL scientists began exploring the peaceful applications of nuclear science, the public was much less concerned about radioactivity. Nonetheless, researchers were already aware that, unless carefully controlled, radioactive material from experiments could find its way out of the laboratory and into the environment. That is why, from the very beginning, BNL has monitored the effect of its operations on the environment, here on site and in the surrounding areas.

BNL's 1986 Environmental Monitoring Report has just been published. The report shows that during 1986, as in all previous years, the Laboratory's releases of radionuclides and other contaminants were well below applicable federal, state and local protection standards.

BNL's extensive program of environmental monitoring is conducted by the Safety & Environmental Protection (S&EP) Division. Its purpose is to ensure that all Lab operations are conducted safely and with minimum effect on the environment. The program includes monitoring all Laboratory releases to air and water, as well as assessing the impact of Lab operations on the local groundwater and the Peconic River.

In addition to the S&EP program, BNL is routinely inspected by appropriate government agencies. Further, in 1985, the Department of Energy (DOE) initiated a nationwide environmental assessment of all its facilities. As reported in the Bulletin, the DOE survey of BNL began last April, and a preliminary report will be issued in the near future.

The DOE survey team examined aerial photographs of the Lab site taken in 1947, 1962 and 1972. Photographs from the same series were used by Suffolk County to identify 656 potential hazardous waste sites in western Suffolk County. Of that total, 29 are within the Lab boundaries.

In checking these sites with BNL's previous environmental reports dating back to 1947, only one site was unknown to the Lab. A preliminary inspection has shown that this particular site predates the Lab's occupancy of the property and was probably a landfill when the property was used as an Army training camp during World War II.

Of the 28 other sites, 15 pose no hazard to the environment. These include such areas as warehouses, recharge basins, firebreaks and a field where crops are grown for biology research.

The remaining 13 sites are already being monitored. These include the Lab's old landfill, which was closed in 1966; the current landfill, which will close in 1990; fuel tanks at the Lab's steam plant; and the waste management area, where hazardous waste is packaged before being taken off Lab property and disposed of in federal sites designated for such materials. The ongoing monitoring programs for these sites are continually reviewed and expanded as needed.

Summary of 1986 Report

The principal airborne radionuclides released by BNL are tritium, oxygen-15 and argon-41. In 1986, tritium was the only radionuclide detected at the site perimeter that was attributable to Lab operations.

The highest average annual concentration of tritium vapor measured at the site boundary was 6 picocuries per cubic meter. This concentration would have resulted in a maximum dose of 0.003 millirem to an individual who stood at that location for the entire year. Although airborne oxygen-15 and argon-41 could not be detected at the BNL perimeter, their calculated dose equivalent was 0.07 millirem at the site boundary for the entire year.

In comparison, during the same year, the total dose from natural background radiation received by each person living in Suffolk County was approximately 1,000 times larger, or 85 millirems. About 60 millirems of that dose are attributable to cosmic rays and naturally occurring radionuclides in the soil, and the remaining 25 millirems come from natural radioactivity in foods.

Liquids discharged through the Lab's Sewage Treatment Plant are sampled at the discharge point and again in the Peconic River, at a point halfway from the Brookhaven site boundary. The accompanying table summarizes the principal data for the 1986 calendar year and shows that all discharges from the Lab were far below the applicable standards.

Tritium was released into the river at an average concentration of 2,715 picocuries per liter, which is about 14% of the Environmental Protection Agency's Community Drinking Water Standard (EPA-CDWS). Small amounts of cesium-137, chromium-51, cobalt-60 and zinc-65 were also detected, at concentrations that were 1% or less of the Radiation Concentration Guides.

Releases from BNL's Sewage Treatment Plant must also meet standards set by the New York State Department of Environmental Conservation. Several water quality parameters are monitored under the state's discharge permit: pH (acidity or alkalinity), biological oxygen demand, suspended solids, temperature and metals.

In 1986, all the measurements were within the permit conditions, with the exception of a few occasions when the pH values were slightly lower (more acid) than the permit limit, though still within the natural range of groundwater.

(Continued on page 2)

1986 Liquid Discharge From BNL's Sewage Treatment Plant

Average concentration of principal radionuclides, as compared to Environmental Protection Agency (EPA) standards.

		Radionuclides				
Location	Unit	Tritium	Sodium-22	Cobalt-60	Strontium-90	Cesium-137
Discharge to Peconic River	pCi/L*	2,715	0.22	0.35	1.3	1.2
	%std.**	14	<0.1	0.1	16.0	<0.1
Midway to Site Boundary	pCi/L*	2,483	0.22	0.64	0.82	1.4
	%std.**	12	<0.1	0.3	10.0	<0.1
EPA Standard	pCi/L*	20,000	240.0***	240.0***	8.0	160.0***

* pCi/L = picocuries per liter.

** %std. = percent of EPA Community Drinking Water Standard.

*** Estimated for a dose of 4 millirems/year, which is the same basis used for setting the concentration standard for tritium and strontium-90.

BNL Lecture: The Cosmotron

In 1947, John Blewett accepted an invitation to join the "splendid project" that became BNL. The first effort with which he was involved was the design of the Cosmotron. Thereafter, he was a key player in each of the Lab's major accelerator projects, until he retired in 1975 as Senior Physicist.

Blewett will be the speaker at the 237th Brookhaven Lecture, the second in a series of four lectures planned this fall to commemorate the Laboratory's 40th anniversary year. His talk, which will focus on "The Cosmotron," will begin at 4:30 p.m., on Wednesday, October 14, in Berkner Hall.

The Cosmotron was BNL's first proton synchrotron and the world's first accelerator to produce particles at energies in the billion-electron-volt, or GeV, region. Because it could accelerate protons to energies comparable to those of cosmic rays in the outer atmosphere, it was called the Cosmotron.

With Ken Green, Stanley Livingston and Leland Haworth, Blewett wrote the first paper describing the design of the Cosmotron. Later, he helped build the accelerator and bring it into operation. The exciting days leading to the Cosmotron concept and the terrifying problems that faced its builders will be the subject of Blewett's lecture.

The Cosmotron first exceeded 1 GeV in May 1952 and reached its full design energy of 3.3 GeV in January 1953. Before it was shut down on December 31, 1966, the Cosmotron had been the first machine to produce all the types of negative and positive mesons known to exist in cosmic rays, making possible the discoveries of the K_L^0 meson and the first vector meson. It was also the first accelerator to produce heavy, unstable particles, some of which were formerly called "V" particles, and this led directly to the experimental confirmation of the theory of associated production of strange particles.

Born in Toronto in 1910, John Blewett received his B.A. and M.A. degrees from the University of Toronto and his Ph.D. from Princeton University in 1936. Then he went to Cambridge University, on a Royal Society of Canada Fellowship.

In 1937, he joined the Research Laboratory of the General Electric (GE) Company, Schenectady, New York. There, during World War II, he became deeply involved in radar countermeasures, devising noise generators for jamming German and Japanese radars.

Postwar, Blewett became interested in radiation from accelerated electrons. He did some calculations that led to the conclusion that such radiation should have an appreciable effect on the orbits in the 100-million-electron-volt betatron, a large electron accelerator just coming into operation at the GE lab. Measurements confirmed his predictions: This was the first observation of the phenomenon now called synchrotron radiation.

Blewett left GE in 1947 to join the fledgling BNL. Last month, at the Lab's 40th Anniversary Symposium, Blewett recalled that, at the time, synchrotron radiation "was considered a nuisance preventing [accelerators] from going to higher energies. Now I gather it's very useful."

Blewett's comment was an understatement, of course: Synchrotron radiation is the raison d'être for such accelerators as BNL's National Synchrotron Light Source (NSLS). With Renate Chasman, Jules Godel and Ken Green, Blewett initiated NSLS design and construction. In his final work at BNL before his retirement, Blewett edited the proposal to the Department of Energy that led to the NSLS's construction.

Between the Cosmotron and the NSLS, Blewett was involved with such BNL projects as the development of the strong focusing principle, which he was the first to extend to linear accelerators in 1953, and the ISABELLE Project, for which he presented the first paper in 1970.

Mort Rosen

John Blewett

During his retirement, Blewett has been involved in a variety of scientific, engineering, editing and committee projects, including a synchrotron light source project in Taiwan. He is a Fellow of the American Physical Society, the Institute of Electrical and Electronics Engineers, the American Association for the Advancement of Science and the New York Academy of Sciences.

All those interested in getting together after the lecture are invited to go with the lecturer to a restaurant off site. To be part of this group, call Gerry Bunce, Ext. 4771.

BNL's Fabulous Forty

At least two BNL employees who were here in 1947 and are still here today are not celebrating their 40th service anniversaries this year, BNL's 40th anniversary year.

They are Marilyn McKeown, Computer Analyst in the Physics Department, and Frances Scesny, Personnel Representative in the Personnel Division. Their service to the Lab was interrupted because they did what women of their day traditionally did: quit their jobs to follow their husbands and quit working outside the home to raise families.

Had the times been different, they both say they might have been celebrating their 40th service anniversaries along with the men. "That was the way it was then, and now it is different. Who knows, with the changes that have taken place over the years, I might have done things differently," says Scesny.

Scesny was one of the first BNL employees hired on site. "I am from Yaphank, and I had been working for the War Assets Administration at Camp Upton for six months, transferring and selling off Army property," she recalls. "My job was almost done when I heard that clerical positions were going to be opening up at the new Laboratory. So I applied."

Scesny began work as a typist for the Personnel Division on January 13, 1947, and was assigned BNL life number 63. She remembers handling a lot of paperwork involved with the transfer of employees from the Atomic Energy Commission to BNL. Scesny then transferred to the office of Personnel Records before she quit work on July 11, 1947.

"I was about five months pregnant with my first child, and I was starting to show," explains Scesny, whose husband Joseph Scesny worked at the Lab as a firefighter at the time. "Women didn't work through their pregnancies: After we got pregnant and started to show, we left work and stayed at home. That was the way it was, and no one questioned it at the time."

Scesny left the Lab to work full-time at home, "keeping house at a leisurely pace" and raising her three children.

Thirteen years after she left and with all her children in school, Scesny returned to Personnel Records on July 18, 1960, "just to keep busy." In 1969, she transferred to the office of Personnel Services, where she has been ever since.

"Things have changed, the Lab has changed and its maternity policy has changed," says Scesny. "When I

Mort Rosen

Frances Scesny

started work in 1947, the Lab had no maternity leave. And when I returned to work in 1960, women could only work through their sixth month of pregnancy, and then they were given a six-month, unpaid leave of absence. At that time, most women didn't come back after their six months were up.

"Now," continues Scesny, "women stay right up until their due dates, they can take sick leave for pregnancy and childbirth, and the majority of them come back to work, while their children are with babysitters or in day care. It is nice that a woman now can have a baby and a job."

Marilyn McKeown interviewed for work at the Lab in the spring of 1947; she was job hunting while finishing her bachelor's degree in physics at Wellesley College, Massachusetts, which she earned in May 1947. Explains McKeown, "I was offered a job in physics, and I took it because not many places at the time were hiring qualified women for scientific positions."

Assigned BNL life number 1197, she started at the Lab on September 2, 1947, as a junior scientist in the Electronics Division, which later became Instrumentation. "We built Geiger counters and proportional counters, which were used in experiments by other departments," explains McKeown, "but we also did some research on those counters and on the scintillation detectors that replaced them."

During the summer of '48, McKeown met a BNL summer student named Michael from the University of Michigan, who was working for two visiting scientists from the University of Illinois, Maurice Goldhaber and Gertrude Scharff-Goldhaber. Michael McKeown returned to BNL the following June with the Goldhabers and married Marilyn.

So, when the Goldhabers and her husband went back to Illinois in January 1950, Marilyn McKeown quit her job and went with them. She remembers, "Because Mike was working in the physics department there, I couldn't get a job in the same department at the university, so I went to graduate school in physics instead. Nowadays, rather than have one give up their job, couples would have a commuter marriage."

That June, however, the Goldhabers and their assistant once more returned to BNL, but permanently. So

Mort Rosen

Marilyn McKeown

did Marilyn McKeown, but only until September, when she went back to Illinois to finish her master's, which she received in January 1951.

Back at the Lab that February, "I went to work for the Solid State Group in the Physics Department, which I was allowed to do because Mike was working in the Nuclear Physics Group," continues McKeown. "I left at the beginning of March 1954, when I was seven months pregnant with my first child.

"At the time," recalls McKeown, "though Laboratory policy stated that women couldn't work beyond their sixth month of pregnancy, some of us stayed on the job into our seventh and eighth months. We conveniently forgot our exact due dates because we knew we could work if the pregnancy were going well."

After the birth of her second child in 1955, McKeown went back to work part-time for the Solid State Group, but on a contract, not as a BNL employee. "The Lab had very little part-time work, so it was very difficult to be a working mom and a BNL employee at the same time," says McKeown, "but I worked around that by working part-time on contract, but with no benefits."

Since she was not a BNL employee, the Lab did not require that she stop working in the sixth month of her last two pregnancies. "In fact," she recalls, "I worked on the days both my third and fourth children were born."

As she was performing the Solid State Group's calculations and analysis, McKeown became acquainted on the job with a new machine: the computer. "I started taking computer science courses at Stony Brook, but I decided that I didn't want to start all over again in a new field," explains McKeown, "So I switched to applied mathematics and started another master's in 1973."

By that time McKeown had become a BNL employee, as she was hired part-time in May 1960. However, as eligible part-time employees did not have their tuition reimbursed by the Lab at that time, McKeown paid for most of the master's courses herself, until she became a full-time employee in 1975. She completed her master's in 1977.

"The Lab has changed its official attitude towards part-time workers, who, for the most part are women," says McKeown. "While I never experienced any discrimination against me personally in my job or field, I felt that the Lab, like society in general, was not generally accommodating women's needs. The changes, like the extension of benefits to eligible part-timers and the coordination of couples' medical benefits, are nice reflections of a changing attitude."

— Marsha Belford

1986 Report (cont'd)

Small amounts of tritium were also detected in several private wells near the BNL site boundary. The highest average concentration at an off-site well was 4,630 picocuries per liter, which is 23% of the EPA-CDWS for tritium.

Direct radiation exposure measurements were made at 16 site-perimeter monitoring stations and at 30 off-site locations within 12 miles of BNL. These measurements showed that Brookhaven's operations did not result in any external radiation dose to people living near the Lab.

The maximum radiological impact from BNL to a hypothetical individual who lived at the site boundary, drank only shallow groundwater and ate fish caught in the Peconic River is estimated to be one millirem for the year. In comparison, sleeping partners who share a bed each receive a dose of about two to three millirems each year from the naturally occurring radionuclides in their partners' bodies.

A collective measure of radiation dose is the person-rem, which is calculated by multiplying the number of people exposed by the average individual dose. Collectively then, the nominal population of 5,000,000 people residing within 50 miles of BNL received as a result of Lab operations an average, annual radiation dose of 0.0004 millirem, for a total of 2 person-rems during 1986. During that same period, the same population received from natural background radiation an average, annual collective dose of 60 millirems, for a total of 300,000 person-rems.

Copies of BNL's 1986 Environmental Monitoring Report have been sent to federal, state and local agencies. Individuals who want to receive a copy may call the Public Affairs Office, Ext. 2345.

Hospitality News

The Hospitality Committee is planning a trip to Old Bethpage Village on Saturday, October 17, with a rain date of Saturday, October 24. The group will travel by carpool, departing at 12:30 p.m. from the Recreation Building in the apartment area. Tickets are $4 for adults, $2 for children. For more information, call Sharon Hall, Ext. 3032, or Milica Stevanovic, Ext. 3009.

ESL Classes

English as a Second Language (ESL) classes have resumed as of September 29, for Laboratory employees, spouses and guests. Free classes for beginners are held every Tuesday evening, from 7 to 9:30 p.m., in the Personnel training room, Bldg. 459. For more information, call Pat Knisely, Ext. 7631.

NYC Train Trips

Effective immediately, all Hospitality Committee-sponsored LIRR trips to New York City on Saturdays have been cancelled.

The Wednesday trips to the city will continue at least until the end of this year. The scheduled trips are:

October 21
November 4, 18
December 2, 16 & 30

Departure is from the Patchogue LIRR Station at 7:55 a.m. Be at the train station 15 minutes before departure time.

The fare is $5.25 per round-trip ticket. Children under five years of age ride free. Reserve a ticket by sending a check or money order, payable to BNL or Cash, through the U.S. mail to BNL, P.O. Box 322, Upton, NY 11973. Please do not send cash.

Checks or money orders must be received by the Friday preceding the trip; put your telephone number and the date of the trip on the back of the check. Reservations are made when checks are received. To confirm a reservation, please send a stamped, self-addressed envelope along with the check.

Computer Demos

The new generation AI workstations from Symbolics Inc. will be demonstrated on Tuesday, October 13, at 1:30 p.m. Joseph Plonski of Symbolics will conduct the demonstration in the Applied Math Seminar Room.

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The Knowledge Engineering Environment (KEE) AI software packages will be demonstrated by Larry Freedman of Intellicorp on Wednesday, October 14, at 9:30 a.m. and again at 1:30 p.m., in the Applied Math Seminar Room. The KEE software packages run on most 68020-based workstations.

Inside Info

John R. Weeks, a Senior Metallurgist in the Department of Nuclear Energy, has been named a Fellow of ASM International, an educational society dedicated to the advancement of technical knowledge on engineered and electronic materials.

Weeks was selected as a Fellow "for outstanding contributions to the safe operation of nuclear reactors and chemical processing equipment resulting from research on corrosion of materials in liquid metals and aqueous environments." He will be installed on October 14, at the ASM's Awards and Annual Dinner in Cincinnati, Ohio.

Softball Champs

The Blue Jays won their final playoff game against the Ravens by a score of 10-8, to become the champions of League I: (top, from left) Louis Nieves, George Oldham (captain), Dave Hansen, Jeff Culver, Juan Alverez, (bottom, from left) Larry Musso, Dennis Hall (co-captain), Nick Pisco, Frank Palmeri, Bob Medina. Not pictured: Jim Forkin, Gerard Shepherd, Larry Witt. —photos by Peter Horton

The Snakebites found their way to first place as champions of League III: (top, from left) Larry Musso, John Niemczyk, Frank Palmeri, Barbara Simpson, Sheree Flippen (captain), Junior Santiago, Herbie Harris (co-captain), (bottom, from left) Juan Alverez, Sharon Atkins, Nancy Harris, Gina Flippen, Mickey Haller. Not pictured: Junius Atkins, Colleen Daily, Robert Langhorne.

The Cutting Edge had just that in League II, and the team proved it by taking home a championship: (top, from left) Walter Weirshousky, Gerry Greenidge, Rich Chernis, Eric Paffrath, Dan Sheppard (captain), Mark Walker, (middle, from left) Dave Lyon, Chris Robertson, Jim Gibney, Jim Newburg, Fred Maier, (bottom, from left) Frank Monroig, Anthony Schiavone, Bob Rowley (co-captain), John Aloi Jr., Bob Chanda. Not pictured: Sam Logan.

Simply Awesome is the name of the League IV champs and also a good description of their winning season: (top, from left) Ralph Brown, Jim Griffin, Sharon Zuhoski, Ruth Coughlan, Karen Archer: (middle, from left) Bob Schmidt (captain), Steve White, Sean Coughlan (co-captain), John Dubendorff, Richard Garrett, (bottom, from left) Kathy Griffin, Sue Ellen Gerchman, Edmond Desmond, Nancy Lazarz. Not pictured: Dan Brown, Donna Cyr, Diane Toledo.

Cooking Exchange

The next meeting of the International Cooking Exchange will be held Wednesday, October 14, at 12:30 p.m. in the Recreation Building at the apartment area. Ana Bagan and Noemi Katz will demonstrate the cooking of Spanish appetizers. In Spain these appetizers are called tapas and are traditionally served before holiday lunches or dinners. However, in some places in Spain, young people eat tapas in the evening as a complete meal, and now tapas bars are beginning to gain popularity in the United States.

There will be a charge of $2 for this demonstration, which will include sampling the different tapas. Babysitting will be provided for a charge of 50¢ per child.

If you have any questions, call Ana Bagan, Ext. 3110.

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It's Blatantly Unofficial!

The latest entry into BNL's Blatantly Unofficial Record Book is:

• *Longest losing streak, mixed-league softball team — Who Cares — 21 consecutive losses, August 22, 1985 to July 20, 1987.*

— Robert Malachowsky, S&EP

Soccer Club

Indoor soccer pick-up games at the gymnasium will start on Friday, October 9, at 5:30 p.m. Outdoor play will continue at the BERA field on Wednesdays at noon. The Soccer Club is also trying to organize a team to play in an over-30 indoor soccer league, which plays on Thursday nights at the Brookhaven Tennis and Sports Center in Setauket. For more information, call Enrique Abola, Ext. 4383.

Bowling

Pink League

High games were bowled by Sandy Asselta 223/170, Renie Rosati 171.

Red/Green League

R. Jones rolled a 214, T. Prach 214, R. Sick 212, E. Meier 209, N. Parrinello 207, R. Mulderig 204, K. Asselta 203.

Purple League

Sharon Moore had a 181, Ron Picinich converted the 7/9 split and John Addessi the 6/7/10.

White League

Kathy Griffin had games of 185/180, Betty Jellett 181, Gerry Riker 180, Jim Griffin 217, Ed Sperry IV 212, Frank Gaetan 206.

Opening: Employee Craft Exhibit

Weaving, quilting, pottery, stained glass, woodcarving and leatherworking are some of the crafts that will be on display at next week's Employee Craft Exhibit. The show, the first such exhibit since February 1985, will begin on Monday, October 12, at 5 p.m., with an opening party until 7 p.m., in Berkner Hall, Room B.

The display of more than 25 exhibits will continue through the week, from 11 a.m. to 2 p.m. Although the individual exhibits will not be judged, there will be some blue ribbon winners on view. The BERA Art Committee invites one and all to see this sampling of leisure time productivity.

Cafeteria Menu

Week of October 12

Monday, October 12		
Chicken noodle soup	(cup)	.75
	(bowl)	.95
Salisbury steak w/mushroom gravy & 1 veg.		2.95
Baked ziti w/garlic toast		2.85
Broccoli and cheddar quiche w/1 veg.		2.95
Hot deli: Baked ham	(bread)	2.65
	(roll)	2.75
	(hero)	2.85
Tuesday, October 13		
Garden vegetable soup	(cup)	.75
	(bowl)	.95
Savory baked chicken w/1 veg.		2.95
Beef ragout Burgundy over noodles		2.95
Baked fish New Brunswick w/1 veg. (lite-weight)		2.85
Hot deli: Corned beef	(bread)	2.65
	(roll)	2.75
	(hero)	2.85
Wednesday, October 14		
French onion soup	(cup)	.75
	(bowl)	.95
Baked stuffed pork chops w/1 veg.		2.95
Sausage super pizza	(slice)	1.10
Hot deli: Grilled Reuben		2.75
Thursday, October 15		
Minestrone	(cup)	.75
	(bowl)	.95
Meatloaf w/Spanish gravy & 1 veg.		2.95
Fillet of fish Parisienne w/1 veg.		2.95
Fettuccine carbonara		2.85
Hot deli: Roast beef	(bread)	2.65
	(roll)	2.75
	(hero)	2.85
Friday, October 15		
New England clam chowder	(cup)	.75
	(bowl)	.95
Veal steak Italian-style w/garlic toast		2.95
Tacos	(each)	.95
Beef & vegetable stir-fry over rice		2.95
Hot deli: Pastrami	(bread)	2.65
	(roll)	2.75
	(hero)	2.85

Arrivals & Departures

Arrivals

Sinya Aoki ..... Physics
Chun-Zhang Chen ..... Biology
Chris R. Gordon ..... Medical
Andrew D. Galo ..... Reactor
Peter J. Heilig ..... Physics
Hai-Qing Lin ..... Physics
Maria-Gracia A. Nubla ..... DNE
Michael R. Pennington ..... Physics
Arthur W. Price ..... Physics
Mark J. Rhoades-Brown ..... ADD
Douglas W.R. Wallace ..... DAS

Departures

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

Donna K. Riendeau ..... Con. & Proc.
Ann Sutton ..... Biology

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.

2699. RESIDENCE CUSTODIAN - Staff Services Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

2700. TECHNICAL POSITION - Requires AAS in electromechanical technology or equivalent experience. Will be doing fabrication testing and maintenance of high precision magnetic measuring devises. Must have knowledge of machine shop equipment. Accelerator Development Department.

Motor Vehicles & Supplies

80 RENAULT LE - runs well, any reasonable offer. 821-9834.

82 HONDA ACCORD LX - 5 speed, a/c, cruise, am/fm cass. Ext. 4095.

78 FORD LTD WAGON - runs well, 78k mi., asking $900. Ext. 4054 or 289-1989.

77 CHEVROLET CHEVETTE - maintained well, dependable, $600 or best offer. Ext. 4859 or 821-3071.

78 CHEVROLET CHEVETTE - a/t, 4 cyl., 89k mi., look good, runs well, needs work on light switches, asking $500. Ext. 4723.

85 KAWASAKI KLT 110 - excel. cond., new windshield, $600. 727-0364.

77 NOVA - looks good, runs well, 6 cyl., stick, am/fm, trailer hitch, $600. 281-5456 eves.

86 DODGE CHARGER - a/c, p/s, p/b, 4 cyl., 5 speed, excel. cond., must sell. 467-9150.

77 MERCURY MARQUIS - station wagon, excel. cond., full power, a/c, am/fm, cruise, 106k mi., $1,550. Ext. 2341 or 821-2716.

82 DODGE D-50 PICKUP - 4 speed, 4 cyl., 77k mi., good cond., $2,200. John, Ext. 4489.

81 FORD MUSTANG - sports package, a/c, p/w, TRX rims, moon roof, am/fm, very good cond., asking $1,975. Ext. 4188.

84 HONDA CIVIC SEDAN - am/fm cass., new exhaust, tire, 74k mi. Ext. 2054 or 283-6409 eves/wknds.

78 FORD E150 VAN - 4 speed w/OD, 6 cyl., good cond., $975. Ext. 2109 or 472-9199.

70 DODGE DART - broken timing chain, 55k mi. Robin, Ext. 2420 or 3004.

78 JEEP WAGONEER - V8, 4 dr., 4wd, quad trac, p/s, p/b, p/w, a/c, digital stereo cass., cruise, hitch, $3,250. Ernie, 588-4987.

74 VOLVO 145 - runs well, very rusty, $100. Don, Ext. 3166 or 2767.

80 CAMARO - 350, a/t, T-tops, full power, low mileage, alarm, louvers, tilt wheel, $5,900. 737-1957.

81 CHEVETTE - 4 dr., a/t, am/fm cass., sunroof, 85k mi., asking $1,100. Joe, Ext. 3569 or 286-9560 after 6 p.m.

84 CHRYSLER LASER - a/t, a/c, p/s, p/b, new tires, must see, excel. Ext. 2446 or 924-1911 eves.

79 PONTIAC LeMANS - a/t, a/c, am/fm, p/s, good cond., very reliable, $1,480. Ext. 3780 or 331-4538.

74 VW SUPER BUG - runs well, new brakes & tires. 821-0686.

VAN WINDOWS - 28x30, solid bay, brand-new, fit all makes, $10/each. Brian, Ext. 4939 or 234-9487.

75 MERCEDES 450 SE - silver, a/t, sunroof, low mileage, very clean. 286-3363 after 6 p.m.

86 HYUNDAI GLS - all options, 5 speed, upgraded stereo system, alloy wheels. 758-5452 after 6 p.m.

82 MAZDA RX-7 GSL - sunroof, stereo, alarm system, new exhaust, battery, starter, mint cond., $8,000. 286-0545.

85 CUTLASS SUPREME BROUGHAM - 8 cyl., 305, 2 dr., T-tops, 26k mi., fully loaded, black, garaged, mint cond., $9,900. 722-4577.

64 FORD FAIRLANE - needs some body work, black w/red, all original, good cond., $1,000. Ext. 4194.

75 FORD LTD SQUIRE WAGON - p/b, p/s, a/c, original owner, $600. 744-8381.

81 MERCURY CAPRI RS - T-tops, a/c, p/s, p/b, a/t, straight 6 cyl., cruise, TRS handling package, new Michelin tires, $4,200. 475-8219.

76 JEEP CJ-7 RENEGADE - a/t, p/s, 8 cyl., new softop, brakes, alternator, shocks, steering stabilizer, voltage regulator, 2 tires, $3,500. Ext. 4142.

74 VOLVO - high mileage, rebuilt engine, runs well, reliable, $950. Torsten, Ext. 3817 or 878-1210.

78 FORD LTD - 8 cyl., a/c, p/s, p/b, black, good cond., $1,100. 737-1957 after 5 p.m.

81 VW DIESEL RABBIT - 4 dr., 4 speed, excel. mileage, 93k mi., $1,500 or best offer. 878-4236 eves.

79 PLYMOUTH VOLARE - station wagon, good cond., $1,200; 77 Toyota Celica GT, $600. Turg, Ext. 3423 or 821-3243.

80 CHEVY CHEVETTE - 4 dr., hatchback, cloth int., am/fm, good cond., $750 or best offer. Ext. 5299 or 924-0848.

80 HONDA CIVIC - hatchback, 4 speed, good cond., $1,500. 744-5448.

77 TOYOTA CORONA SEDAN - deluxe edition, body good, runs well, $1,200. 363-7286 before 9 p.m.

PONTIAC PHOENIX - 2 dr., a/t, p/s, a/c, runs well, good cond., $2,000. 928-8522.

81 BUICK SKYLARK LIMITED - 4 dr., 6 cyl., fully equipped, 65k mi., very clean, asking $2,475. Paul, Ext. 2476.

77 DODGE ASPEN - V8, runs, cheap. Jim, 744-6287 eves.

75 MERCEDES 300D - excel. mech./int., some rust, asking $2,200; minibike, 5 h.p. eng., good for parts or to fix-up, $25. Greg, 286-0065.

77 MERCURY GRAN MARQUIS - 2 dr., 460 V8, 92k mi., garaged, $1,600. 744-2805.

78 HONDA CIVIC - 5 speed, red, 35 mpg, runs well, good tires, $650. Frank, Ext. 3531.

85 FORD ESCORT - 4 dr., hatchback, a/t, p/s, p/b, am/fm tape, 27k mi., $3,800. Ext. 4846 or 363-6940.

87 HONDA ACCORD - hatchback, a/c, a/t, stereo, 14k mi., $10,500 neg. Ext. 4867 or 472-1302.

76 LINCOLN TOWN CAR - trailer hitch, stereo, CB, good cond. Dennis, Ext. 4028 or 765-3136.

73 VOLVO 164-E - good mechanical cond., needs some work, 6 good tires, $500 or best offer. Hughes, 286-3301.

73 PLYMOUTH SATELLITE - V8, new trans., just tuned, new tires, runs well, $900. 732-9474.

83 PONTIAC SUNBIRD - 97k mi., excel. cond. Peter, Ext. 3734 or 732-5047.

80 SUZUKI GS550L - black, custom paint, sissy bar, oil cooler, case guards, orig. owner, $895. Bob, Ext. 4446 or 654-3989 after 5 p.m.

71 VW SUPER BEETLE - new motor, tranny, clutch, heater box, many extras, rims & snow tires, good cond. Ray, Ext. 3536 or 289-7615.

77 GRANADA - very good cond., $333. Rich, Ext. 4308 or 665-6189.

75 PLYMOUTH VALIANT - 225 engine, 4 dr. sedan, p/s, a/t, runs well, 100k mi., $595. 277-4091.

TIRES - 4, 165-80R-13 radial, Sears all-weather tread, mounted & balanced on Datsun wheels, $75. 289-8212.

TIRES - 4, BF Goodrich radial, all terrain, 33x12.5 R15, tires only, $375; 4 Western aluminum rims, Ford, $375; rims & tires, $750. Chas, Ext. 2021.

SUZUKI FA50 SCOOTER - 1986, bright blue, excel. cond., $300. 821-0250.

VETTER MOTORCYCLE FAIRING - Quicksilver, black w/gold pinstripe, frame mount, full lighting, perfect, $100. Ext. 5110.

TIRES - 2 Dunlop P215/75156, belted, $40; 2 Volvo rims, 15", $20. Bill, 929-6442.

Boats & Marine Supplies

16' CHECKMATE MERC TRAILER - 1979, good cond., $4,500. 473-8568 eves.

14' FIBERGLASS BOAT - w/trailer, 40 h.p. Evinrude w/controls, $400. Bill, Ext. 4175 or 298-4089.

22' SEARAY - 1974, hardtop, new canvas, trailer, extras, excel. cond., $7,000. 369-2838 after 4:30 p.m.

16' HOBIE ALUMINUM TRAILER - hot stick, hi-perf. racing equip., $2,400; 23' T-bird Cathedral hull, 160 Merc., big cuddy cab., $5,000. Ext. 7572.

19' BAYLINER CAPRI BOWRIDER - 1984, Volvo I/O, trailer, many extras, must see, not in water in '87, $7,000. Ext. 2981 or 473-7809 eves.

20' BEACHCOMBER HOLIDAY CRUISER - 1979, 200 h.p. I/O, toilet, kitchen, sleeps 4, elec. winch, tandem trailer, v.g. cond., $11,000. 475-8219.

18' SANNIBEL - 1984, centerboard sloop, 3 sails, sleeps 4, extras, asking $4,000. 473-1761.

18.5' WELLCRAFT - equipped for fishing, 100 h.p. Evinrude, Cox trailer, cover, $1,500. Paul, Ext. 2476 or 751-2149.

16' BOWRIDER - rebuilt 70 h.p., trailer, canvas, many extras, all good cond., $2,300. Dan, Ext. 2075 or 737-8124.

21' BAYLINER - sleeps 5, I/O, swim platform, radios, canvas & more, in water. 878-0480 eves.

16' HOBIE CAT - w/trailer, multi-color sail, extras, $2,000. Ext. 4122 or 286-0872 after 6 p.m.

19' BAYLINER - 1985, cuddy, Capri 125, Volvo/Penta I/O, galvanized trailer, low hours, $7,500 neg. 286-5879.

27' BRISTOL - aux, sloop, all good sails, electronics, etc., will offer financing help. 941-9423.

Miscellaneous

BASSETT CRIB - & chest of drawers, brown pine, excel. cond., no mattress, $190. 929-4369 after 6 p.m.

PEKINGESE PUPS - AKC, champion breed. 654-1731.

BED - three-quarter, mattress & box spring, excel., $75; picture frames, assorted, 16"x20" & 20"x24", $3/ea. Pat, Ext. 2452.

MET OPERA TICKETS - 3, Friday, Nov. 6, Manon, front row balcony, $23. Elliot, Ext. 3947.

LAWN MOWER - Sunbeam 19", needs work, $65; apartment size washer/dryer, $450. Tom, Ext. 5350.

SEIKO SPORTS WATCH - 6 functions, water proof to 100m, brand-new, orig. $150, sell for $80. Hovi, Ext. 4919/4597 or 744-6990 eves.

UNIVERSAL WEIGHT SET - bench press, Gympac, 300 DI fitness system, all together, $300. 585-2084.

PORTABLE 5" TV - black & white, Bentley deluxe, $65. 878-2239.

TORO RIDING MOWER - 5 h.p., 25" cut, $300; self-propelled mower, $50. Ernie, 588-4987.

HUMIDIFIER - Presto, good cond., $50. Ext. 2683 or 751-2469 eves.

DISHWASHER - Hotpoint, portable, excel. cond., $25. Chris, 878-8072.

SOFA - Ethan Allen, 4 cushions, orange; chair, Ethan Allen, gold. Ext. 2950.

U-PICK PUMPKINS - weekends, 9 a.m.-6 p.m., Beaver Dam Road, Brookhaven Hamlet.

BOY'S TRICYCLE - Fisher Price, excel., used only 4 months, $15; baby items. 744-9677.

WASHING MACHINE - works; Italian Provincial couch. 286-7539.

BAR - contemporary, teak wood, built-in ice bucket, wine rack, w/shelves & mirrors, $150. Ed, 282-4188 or 363-5170.

CB RADIO - Midland, good cond., all access., 40-channel, antenna, $45; antique vase table lamps, 3, gold trimmed shades, $15/ea. 281-5532.

BOILER - Beckett head, like new, must sell, whole unit, $300. 588-4703.

HOT WATER HEATER - electric, 50 gallon capacity, well insulated, good cond., $75. Ext. 7148 or 286-9390.

PIANO - spinet, blonde, $200; Colonial couch, large, plaid, $50. Ext. 3315.

DRESSER - medium size, good cond., $50. Ext. 3309.

BUNK BEDS - w/mattress, excel. cond., $50. 744-5801.

55 GALLON DRUMS - w/liners, $5/each. Ed, Ext. 2700.

HOTPLATE - & hamburger cooker, $3/each. Jim, Ext. 2432.

TV PROJECTION SYSTEM - 48" screen, lens, cabinet & remote control, needs 13" color TV, $100. 281-6070.

UNICEF XMAS CARDS - & gifts. Ann, Ext. 2022 or 744-8386.

BROADCAST RECEIVER - ARC 5, $15; GE air conditioner, $50. Frank Rumph, 588-3565.

PANASONIC VIDEO CAMERA - PK802, Panasonic power supply PKA7895 & 2-25' extension cables, $300. 931-0183.

COUCH & LOVESEAT - neutral print, contemporary, excel. cond., $300. Roy, Ext. 2384 or 722-8736.

GRAND PIANO - 6', Yamaha, walnut, 8-years-old, $5,500. 286-5879.

CRIB & MATTRESS - dark wood, like new, $75; high chair, balloon pattern, must see, $25. 744-3069.

DINING ROOM SET - wood, lighted breakfront, 5 chairs, mint cond. 737-1957 after 5 p.m.

ACOUSTIC MODEM - LEX-11 300 Baud, $50. Ext. 5144.

WOODEN PLAYPEN - $10; crib, $20; oak, painted, 7-drawer desk or vanity, $20; hand-slicer, $3. 878-6637.

COMPRESSER - Binks spray, w/gun & hose, $75. Chas, Ext. 2021.

FOSSIL FISH - citrine crystals & amethyst crystals from Brazil. Whitey, Ext. 2913, Bldg. 197B.

CRIB - w/mattress & bumpers, $30; Aprica folding stroller, ideal for travel, $50. Ady, Ext. 4531 or 331-3785.

MATTRESS - queen-size, Stearns & Foster, orig. $350, now $75; changing table, crib bumper, humidifier, car seat, toys. 929-3347, eves/wknds.

DINING SET - Colonial, trestle table, 4 ladderback chairs, hutch & server, $1,000. Colonial captain's desk, $300. 584-5197.

XMAS TREES - new, in original boxes, 7½ scotch pine, orig. $200, sell for $60. Tony, 698-9274.

HI-FI SPEAKERS - & turntable. Kristin, 744-6287 eves.

GIRL'S BICYCLE - Ross, 26", 10-spd., $25; Sears upright freezer, 16.5 cu. ft., excel. cond., $100; dining room set, 4 chairs & hutch, $150. Ext. 3954.

BICYCLE - 12-speed, $50; IBM electric typewriter, wide carriage, $150. Susan, Ext. 4267.

FOOD SLICING MACHINE - commercial, old, good cond., compact, $100. Joe Bush, Ext. 4638 or beeper 572.

FISH TANK - & stand, w/accessories. Kristin, 744-6287 eves.

CORN SNAKE - 7 months old, 2' long, eating well, w/heating brick & hollow log, $50 neg. Sue, Ext. 7235 or 395-3529 after 6 p.m.

WASHER & DRYER - Sears/Kenmore, good cond., $100. Ext. 5555.

BOY'S BIKE - like new, $75. 399-4822 after 5 p.m.

SEWING MACHINE - & cabinet, Sears Commodore, 1961, works, $20; Avon bottles, 1974, cologne or perfume collectibles. 277-1761.

SEWING MACHINE - Singer Touch & Sew; loveseats, 2, black/white; bunkbeds, custom, wood, w/dresser & 2 firm mattresses. 399-1868.

YAMAHA PS30 ORGAN - portable; children's riding helmets, 2, velvety black w/leather chin straps. Ext. 4399.

AQUARIUM - 33 gallon, wood cabinet, fully equipped, undergravel filter, nice set-up, $125. Ext. 2712 or 289-1732 after 6 p.m.

DESKS - 2, $50-$75; coffee table, $40; sewing machine, $65; headboard, $20; wine rack, $20; chandeliers, $30. 277-4091.

BEDROOM SET - 72", 9-drawer dresser, 2 night stands, king-size headboard, Drexel, $400. Charlie, Ext. 3950.

DINING TABLE - 6 chairs; crib, mattress; organ, b.p.c; sofa set, make offer. Chris, 732-5047.

CARPET - nylon, 10'10"x11', orange, $75; GE air conditioner, 10,500 Btu, $100. Bill, 929-6442.

MOVING SALE - elect. space heater, $20; high chair, $9; auto. lamp timer, $8; pool chemicals, sandbox, baby scale, more. Ext. 2341 or 821-2716.

Free

SOFA - Salmon velvet, large circular, very good cond. Ted, 286-0065.

Yard Sales

CENTER MORICHES - assorted items, 31 Cynthia Lane, off Senix, off Montauk Hwy., October 10, 9 a.m.-4 p.m.

YAPHANK - Rustic Road, multi-family block sale, October 24, October 25-rain date.

MEDFORD - furniture, clothing & more, October 10 & 11, 10 a.m.-5 p.m., 804 Long Island Avenue.

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 Sale

MASTIC BEACH - 3 bdrm. ranch, wooded ¼ acre w/fenced in yard, eik, ceramic-tiled full bath, l/r, w/w, city water, $99,900. Ext. 4939 or 281-7419.

PORT JEFFERSON - 4 bdrms., 2½ baths, M/D possible, family rm., bsmt., patio, extras, 3-village schools, $210,000. 928-0281.

EASTPORT - 2 bdrms., 1 bath, large l/r, full bsmt., 100x120 property nicely landscaped, good location, close to schools & shopping, $115,000. Terry, Ext. 2232, or 325-0835 after 5:30 p.m.

RIDGE - 3 bdrms., 2 baths, custom built/designed, 1½ acres, many extras, $250,000. 924-6293.

EAST ISLIP - south of Montauk, 10 room M/D Colonial, 2½ baths, owner financed, reduced to $195,000. 277-4091.

SHOREHAM - north of 25A, 4 bdrm. ranch, 2 baths, oak floors throughout, 2 decks, 1 treed acre, $190,000. 744-5801.

MONTAUK - Gurney's Inn, spa, timeshare, sleeps 4, lifetime vacation, 15th week Easter/Passover, $12,500. Ext. 3144 or 698-5046 eves.

FARMINGDALE - 3 bdrm. ranch, 2 baths, sun porch, center hall, eik, full bsmt., lovely landscaping, quiet street, move-in-condition, $180,000. 694-5578.

For Rent

MIDDLE ISLAND - 1 bdrm. Artist Lake condo, incl. gas, heat, swimming pool, club house, etc., avail Oct. 15, $630/mo. 331-2025.

BLUE POINT - 2 bdrm. house, l/r, new kit. & bath, d/r, w/d, central a/c, f/p, w/w, bsmt., fenced yard w/shed, ¼ to Nicolls rd., 20 min. to Lab, $800/mo. +. Henry, Ext. 5110 or 399-3087.

HILTON HEAD, SC - 2 bdrm. condo, sleeps 6, pool, beach, tennis, golf, some Oct. & Nov. openings, $300/wk. 585-9149.

HAMPTON BAYS - 2 bdrm., furnished, waterfront, avail. Oct.-May 15, $440/mo. + util. 728-2104 eves.

NORTH SHIRLEY - 2 rm. apt., furn. bdrm. w/skylight, eik, w/w, private ent., 5 min. to Lab, 1 person only, non-smoker, no pets, security, $475/mo. incl. util. 281-8044.

CALVERTON - 2 bdrm. cottage on the lake, l/r, sun porch, large kit., skylights, completely remodeled, winter rental, avail. Oct. 15-April 15, $650/mo. +. Ext. 3430.

BROOKHAVEN HAMLET - 1 bdrm. apt. in country home, large l/r, kitchenette, bath, furnished, working, mature adult. 286-0129.

SHIRLEY - private ent., l/r, kit., full bath, working single/couple, 7 miles from Lab, $525/mo. incl. heat, elec., cable. 399-5048 after 5 p.m.

NORTH SHIRLEY - 3 bdrm. apt., l/r, d/r, kit., $850/mo. Ed, 281-2051 after 6 p.m.

SPRINGHILL, FL - in Deltona community, 2 bdrm. house, fully furn., winter rental avail., 3-4 mo. rental preferred, $350/mo. + util. Ext. 4530 or 261-2719.

EAST PATCHOGUE - 1 bdrm. apt., private ent., patio w/grill, cable, avail. immed., single person, $550/mo. incl. all. 654-0019.

Wanted

TICKETS - 3, Ariadne auf Naxos, Metropolitan Opera, evening Oct. 10, prefer balcony or family circle. Ext. 5301 or 4619.

TAPE/RECORD - spooky Halloween sounds to tape. Janet, Ext. 2345 or 929-8152.

FAMILIES TO JOIN SKI TRIP - to Voil, February. Ext. 7115 or 744-5801.

GIRL'S 20" BIKE - good cond. Joe, Ext. 7148 or 286-9390.

TRAINS - Lionel, American Flyer, accessories, any cond., brings good price. Carole, Ext. 3362 or 924-4097 eves.

FRENCH SPEAKING CHILDREN - age 6-10, to play together. 821-1435.

WITNESS/DRIVER - involved in bicycle/car accident, Sept. 28, morning, near Fleming House. Deborah Faivre, Ext. 2226.

HI-FI VCR - portable. George, Ext. 4100.

GROW LIGHT - for plants. Janet, Ext. 2345.

ARC WELDER - ac or ac/dc, 200 A, for home shop. Gerry, Ext. 3672, Monday-Thursday mornings, or 663-2797 eves.

NANNY/HOUSEKEEPER - 5 days, 7 a.m.-7 p.m., own transportation, in Ridge, $300. Ellen, 929-3795.

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