

Environmental Protection at BNL Part II: Doing What Needs to Be Done

The second of a three-part series, this article describes the remediation program the Lab has initiated for correcting problems caused by hazardous wastes.

Is your drain clogged? Do you need to clean some tools in your workshop?

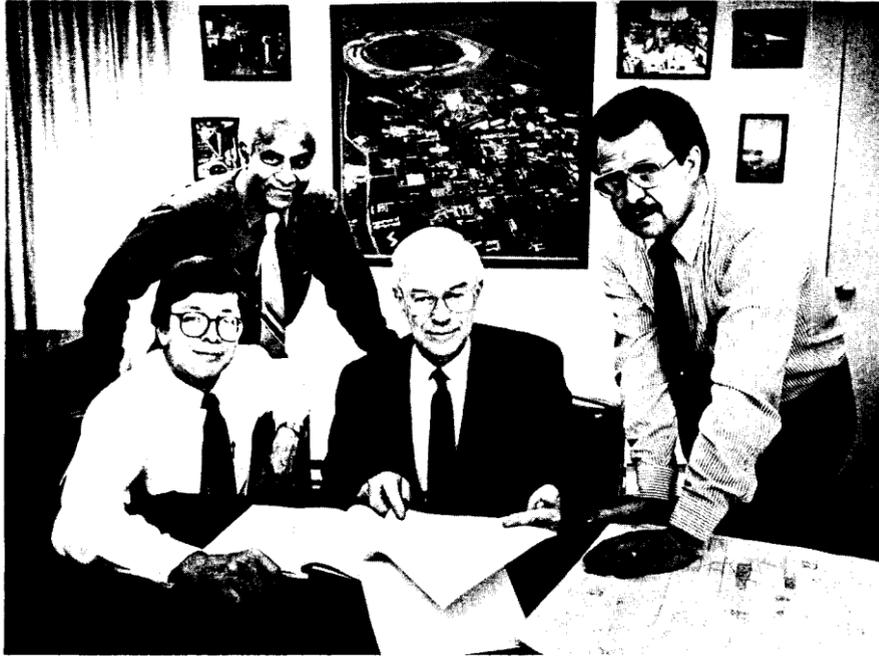
For many years, degreasers containing the toxic solvent trichloroethane (TCA) have been the substances of choice for solving these problems. People throughout Suffolk County — including BNL employees — have used these commercially available products freely and, until recently, disposed of them without restriction.

The uncontrolled disposal of TCA-containing degreasers came to a halt in the early 1980's, when federal and state authorities began regulating the substance after the discovery that compounds similar to TCA might be carcinogenic. Though it continues to be used at BNL in many locations, its disposal is now regulated, as outlined in the BNL Safety Manual. In order to prevent TCA from entering the environment, employees must dispose of such materials through the Lab's Hazardous Waste Management Program.

A Problem Identified

As good as these measures are, however, they can do nothing to correct the problems created before the current restrictions on TCA were established. At BNL, one such problem came to light in 1984, when concentrations of TCA higher than current drinking water standards were found during routine sampling of test wells near the Hazardous Waste Management (HWM) area.

Identification and remediation of environmental problems such as this are coordinated by the Safety & Environmental Protection Division (S&EP).



Roger Stoutenburgh

Discussing the Lab's remediation program for correcting environmental problems are: (from left) Robert Casey, head of the Safety & Environmental Protection Division (S&EP); Jan Naidu, who heads S&EP's Environmental Protection Section; Gerald Kinne, BNL's Assistant Director for Reactor, Safety & Security; and Len Emma, who heads S&EP's Hazardous Waste and Emergency Preparedness Section.

ronmental Protection Division (S&EP). Len Emma, who heads the Hazardous Waste Management and Emergency Preparedness Section, explained, "TCA contamination was caused when small amounts had been spilled on the ground in earlier times."

The Plume Is Traced

TCA had been detected in the groundwater near the HWM area. The immediate question was: How far had the contamination traveled? This concern is real since, below the Lab site, contamination in the ground-

water can be expected to travel at rates up to 500 feet each year.

The situation is complicated by the fact that the aquifer — the water-bearing stratum of permeable rock, sand or gravel that lies beneath the surface of eastern Long Island — is Suffolk County's sole natural source of drinking water.

S&EP hired a consulting firm to delineate the extent of contamination in the groundwater. The consultants traced the TCA plume by putting in wells and analyzing groundwater samples. They found concentrations up to 1,800 parts per billion (ppb); the legal limit is 50 ppb. The plume had traveled about 2,000 feet to the southeast, but had not affected the Lab's drinking water and had not reached the site boundary.

Stopping the Progression

To see that it progressed no further, BNL's Aquifer Restoration Project began in April of 1986, under the

First RHIC Quadrupole: Excellent Performance

In testing that began last week, the first quadrupole magnet designed for use in BNL's proposed Relativistic Heavy Ion Collider (RHIC) quickly reached operating currents well above those that will be required to focus particles within the accelerator.

Steps towards the successful test of May 25 began about two years ago, when the staff in the Magnet Division of the Accelerator Development Department began designing the RHIC quadrupole. It is a 1.4-meter-long superconducting magnet for focusing the particle beam and keeping it contained within the vacuum pipe. Quadrupoles will alternate within the arcs of the collider with 9.7-meter-long dipoles, magnets that are used to bend the beam around the ring.

Until recently, most of the Division's attention has been on dipole performance. When the dipoles were tested successfully, it was assumed that the quadrupoles would also perform well. Any questions about this assumption turned to jubilation when it was announced that the quadrupole initially had quenched, or lost its superconductivity, at 7,600 amperes of current — far higher than the planned operating current of only 5,000 amperes. Subsequently, the magnet quenched even higher, by reaching its maximum potential, or short sample limit, of 8,050 amperes on the third quench.

technical direction of S&EP's Jan Naidu and Lawrence Day.

The air stripping technique employed in the project takes advantage of the fact that TCA, an organic compound, is hydrophobic, so it readily separates out of water vapor sprayed into the air, where it is far more easily diluted. Clean water returns to the ground. This method of decontamina-

(Continued on page 2)

Synchrotron Radiation in Structural Biology



Roger Stoutenburgh

"Synchrotron Radiation in Structural Biology" was the title of the 35th Brookhaven Symposium in Biology, held at the Lab on May 22-25. Pictured between two of the seven sessions are the Symposium organizers: (from left) Robert Sweet, BNL; Malcolm Capel, BNL; Benno Schoenborn, BNL; Steven White, BNL; Elizabeth Theil, North Carolina State University; Hugh Huxley, Brandeis University; and Richard Setlow, BNL. Absent from the picture is John Sutherland, BNL.

Radiation produced by synchrotrons has been used to study biological structures for only about 20 years. Only over the last half dozen has there been satisfactory instrumentation for synchrotron-based crystallography, small angle scattering and spectroscopy, the three principle techniques used by structural biologists.

In addition to reviewing results obtained by these techniques, the 60 participants explored instrumentation improvements and new ways of using synchrotron radiation. In the Symposium Lecture, Huxley, a Trustee of Associated Universities, Inc., explained how the development of synchrotron radiation techniques and technology have contributed to advances in structural biology.

In the sampling and testing phase of BNL's Aquifer Restoration Project, Richard Lagattolla sets out buckets at one of the five spray-aeration locations on site. Four hours later, he collects the water that has rained into the buckets from the spray. So far, testing of such water shows that the project has been 95-100% efficient in removing trichloroethane from the groundwater.



Coming Up

The Fine Arts Trio from the State University of New York at Stony Brook will perform at Berkner Hall on Tuesday, June 7, at 9 p.m. Though the free 45-minute concert will be held in conjunction with the 48th Annual Conference on Physical Electronics, all members of the BNL community are welcome to attend.

Equipment Demo

Edwards High Vacuum will hold a product show at Berkner Hall, June 9, from 10 a.m. to 3 p.m. Edwards products featured will include the Dry-Star oil-free pump, Spectron leak detector, and Cool-Star cyro-pump. The Temescal Products featured will be super-source electron beam guns, and the CV-8 and CV-14 power supplies. Datametrics's mass-flow controllers and pressure transducer product-line will also be on display. A sales engineer and product specialist will be available for product inquiries.

Hospitality News

Shruti Budhani will talk about the culture and traditions of India, at the next Hospitality Committee get-together on Tuesday, June 7, at 9:30 a.m., at the Brookhaven Center. In conjunction with the presentation, handmade crafts from India will be exhibited.

Babysitting will be provided free of charge, and parents are requested to leave their children with the babysitter during the presentation. It is suggested that you bring along a toy with which your child can play.

Spouses of Lab employees and visitors are welcome. Coffee, tea and danish will be served.

Environmental Protection

(Cont'd)

tion is the preferred process for cleaning TCA-contaminated groundwater and has been frequently used on Long Island.

So each day, groundwater is brought up to the surface through five pumping wells located along the plume. Then, water is sprayed into the air at the rate of 1,700 gallons per minute. About 2.5 million gallons of water are aerated in this manner each day.

Comparisons between the water before and after spraying show that BNL is removing TCA with 95-100% efficiency. Already, the TCA concentrations have dropped to about 100 ppb, but the Lab's program, which has cost a total of about \$400,000, will continue until the concentration falls well below the regulatory standard.

Other Areas for Remediation

In addition to the Aquifer Restoration Project, BNL has identified several other areas for remediation:



Roger Stoutenburg

Wall-Walking

This is the view each of the 28 participants had as they practiced an Australian rappel during the Special Response Team Training held May 23-26 for 16 officers with the Lab's Police Group and 12 members of the Suffolk County Emergency Services. To go

down the 38-foot wall of the training tower at the firehouse, each trainee did three rappels, or descents, the speed of which could be controlled by changing the tension on the rope. The program was the third such course conducted at BNL by the Mobile Training Team from the Department of Energy's Central Training Academy in Albuquerque, New Mexico.

All film badges will be changed tomorrow. Please place your badge in its assigned rack space before leaving work today.

- **Waste tank sludge removal** — Three storage tanks at BNL's radioactive waste treatment facility contained radioactive sludges left over from operations of the now-retired Brookhaven Graphite Research Reactor, which ran from 1950-68. When dry, these sludges had the consistency of talcum powder and were very mobile. The concern, explains Emma, was that, if the tanks were to have leaked, the material could have spread.

To remedy this potential hazard, BNL began a \$550,000 Sludge Removal Program in 1987, by contracting with Chemical Nuclear Systems to remove the sludge materials and solidify them with cement. All of the sludge has now been solidified and is stored in non-hazardous form, in containers in the HWM area.

- **Environmental upgrades** — This program, for which funding of \$9.6 million has been approved beginning in 1989, involves the closure of several sites that received hazardous materials and the transfer of the sludge solidified under the Sludge Removal Program to a federally operated disposal facility in the state of Washington.

After the sludge is shipped out, the

New Police Officers Graduate



Roger Stoutenburg

The most recent class of BNL police recruits, which was graduated on Friday, May 27, includes (from left) William Staker, Michael O'Connor, Richard Sanniola, Michael Timm and Charles Grigg. Sanniola was named the class's honor graduate.

tanks that contained these materials will be dismantled and the area restored. "This is one of the first efforts we are making at the Lab to return an area to its original condition," said Emma.

Other projects in this program include the stabilization of: (1) an old ashfill site, (2) the old landfills used until the mid-1960's and (3) the current landfill. BNL is doing this primarily to comply with New York State regulations, which mandate closure of certain landfills by 1990.

Stabilization involves covering each site with an impervious cap, to prevent water from percolating through and leaching hazardous substances into the groundwater.

Part of the \$9.6 million will also be used to upgrade the Lab's environmental monitoring capability, said Emma, "to enhance our ability to do remediation and preclude the potential for future environmental impact."

- **Environmental improvements** — This program, which will cost the Lab \$4 million, began earlier this year. It involves asbestos removal, closure of cesspools and connection of

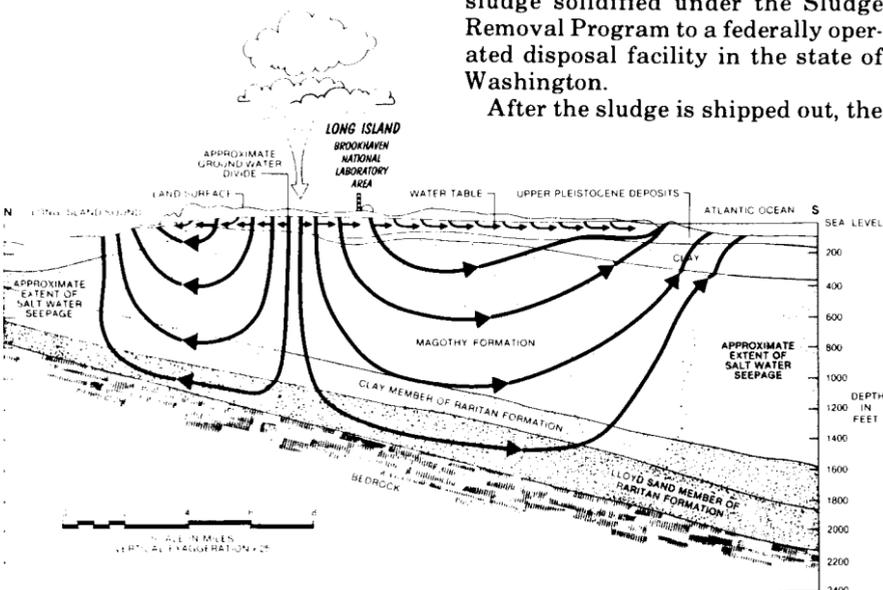
several buildings to BNL's sanitary sewage system.

S&EP has identified a number of buildings still connected to cesspools, such as the paint and carpentry shops, where employees work with hazardous materials. To eliminate the potential for these materials getting into the cesspools and then into the groundwater, these buildings will be hooked into the sewage system.

"Of course," said Emma, "whether you have a cesspool or a sewer, hazardous materials should not be discharged down the drain or sink. BNL's Occupational Health and Safety Guide No. 6.1.0, *Environmental Protection*, should be consulted for further information."

- **Proposed Hazardous Waste Management Facilities Upgrade** — If approved at a cost of \$2.8 million, this upgrade will provide for new handling and storage facilities for hazardous materials.

As active as the Lab has been in correcting problems, the aim is to be even more active at preventing them in the future, as the last part of this series will discuss. — Anita Cohen



Groundwater flow near Brookhaven National Laboratory.

Invest in a Savings Account — At the Blood Bank

What's the interest on a pint of blood in the blood bank? From a high finance viewpoint, absolutely nothing. You give a pint, you lose an hour.

From any other viewpoint, the satisfaction of knowing that your one hour and your one pint can save the lives of up to five people, makes this action a very special investment. Each day, Long Island's 43 area hospitals need a total of at least 700 pints, yet only

Dept.	Bldg.	Captain	Ext.
ADD	1005	Patricia Webster	4628
	902A	Audrey Blake	5382
	911B	Bill McGahern	2171
AGS	515	Michael Torres	4199
AMD	134A	Elliott Levitt	2495
AUI	463	Richard Sautkulis	3386
Bio.	555A	Sophie Kostuk	4302
	903	Al Campbell	2043
	462U	Christine King	7725
CSD	462A	Frank Monroig	4986
	479	Frank Flegar	3499
	179A	Pat Taylor	2452
DAS	526	Peter Fallon	3043
	815	Betty Ivero	2208
	480	Jim Hurst	3844
475	Vasilis Fthenakis	2830	
	426	Maggie Marsch	3275
	318	Judy Giordano	3051
120	Sharon Zuhoski	3359	
	51	Lola Kopp	2265
	355	Tracy Ryan	3681
DCP	130	LaRosa Collins	2063
	830	Ali Lopez	5768
	902C	Alice Costantini	2274

Summer Program For Children

BERA's summer recreation program for children features swimming and tennis. The program is open to children of all Laboratory employees.

Swimming Classes

- Planned Program — Each child will be scheduled for one lesson each week for a total of eight lessons. American Red Cross certificates will be awarded to children who qualify.
- Time — Monday through Friday, 2 to 3:30 p.m.
- Fee — \$20 for each child upon registration; plus \$1.50 daily admission fee or present season ticket.
- Requirements — For the safety of the children, a minimum height of 48" is required.

• Registration — Applications may be picked up at the Recreation Office in Personnel from 8:30 a.m. to 5 p.m.; the BERA Sales Office in Berkner Hall from 9 a.m. to 2 p.m.; or the swimming pool during scheduled hours. Mail or deliver applications with registration fees (checks payable to BERA) to the Recreation Office, Bldg. 185, no later than Friday, June 17.

Tennis Program

- Planned Activity — Basic tennis instruction.
- Time — Monday through Thursday, 3 to 4 p.m.
- Fee — Although no fee or registration is required, children will provide their own rackets and balls and will be asked to pay a \$2 entrance fee if they wish to play in the end-of-season tournament.

BROOKHAVEN BULLETIN

Published weekly by the Public Affairs Office for the employees of BROOKHAVEN NATIONAL LABORATORY

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four out of every hundred possible donors give blood.

You can help meet this urgent need by donating blood in the Lab's upcoming drive at the Brookhaven Center on Tuesday-Thursday, June 21-23, from 10 a.m. to 3 p.m. each day.

For further information, contact the Blood Program Captain for your department or division (see list below), or call the Lab's Blood hot line, Ext. 5126.

Dept.	Bldg.	Captain	Ext.
DO	134	Janet Sillas	2345
DOE	464	Clare Gash	3438
Fisc.	134A	April Donegain	2459
Inst.	535B	Patrick Gilleeny	2836
Med.	490	Peter Heotis	2304
MIS	459	Bob Kaszuba	7785
NSLS	510E	Lynn Kelly	2297
	725B	Judy Thompson	2145
	134C	Swapna Mukherji	5277
PE	452	Peter Stelmaschuk	4669
	326	Ronald Mulderig	3084
	422	James Gibbs	3254
Pers.	185	Marsha Kipperman	2871
P&GA	197B	Bruce Style	2953
Phys.	901A	Sandy Asselta	4550
	510A	Liz Mogavero	3940
	750	Randi Vogt	4421
S&EP	535A	Len Emma	3334
	599	Michael Carroll	2351
	211	Barbara Boerjes	4956
S&SD	50	Pat Cahill	2740
SSD	179B	Joan Perullo	2549
	179B	William Webster	2525
TID	477A	Kathy Vivirito	3486

Rifle & Pistol Club

Just a reminder that the meetings of the Rifle & Pistol Club are held on the second Wednesday of the month. The next scheduled meeting is June 8. Members and others who are interested should attend this meeting, as none are held during the months of July and August. Meetings begin at noon in Room 202, Bldg. 911B.

Volleyball Champs



Capturing first place in the Open League was Phoenix: (front, from left) John Usher, Dennis Weygand, Jim Roberts; (rear, from left) Don Litcher, John Millener; (missing from photo) Bob Casey, Rich Davis, Sandee Litcher.



The champs of League II were Nuts & Bolts: (front, from left) Michele Rabatin, Donna Cange, Alice Costantini; (rear, from left) Bob Brown, Doug Paquette, Bob Callister, Ken Sutter; (missing from photo) Barbara Royce.

Golf

The third BGA golf tournament will be held on Wednesday, June 15, at the Swan Lake Golf Course. Obtain starting times by contacting Joe Mayeski, Ext. 2575. First priority will go to completed foursomes.

Greens fees are \$14; tournament entry fees are \$1 for BGA members and \$2 for non-members. Both fees can be paid to the starter. A riding cart can be rented for \$22; a pull cart rental is \$2. Tee times are reserved for 10 a.m. through 12:30 p.m. The deadline for sign-up is June 10.

The results of the tournament at West Sayville were:

- Low gross — Doug Sweely, Flight A; John Hildenbrand, B; Ed Smith, C; Larry Musso, D; and Joe Harder, E.
- Low net — Joe DePace, A; Chang Park, B; Don Horne, C; Bill Shoening, D; Ken Riker, E.
- Long drives — John Millener and John Hildenbrand.
- Closest to pin — Robert Meier and Bill Sampson.

Stony Brook Events

The Union Craft Center at the State University of New York at Stony Brook is offering an eight-week "Introduction to Scuba Diving" class, beginning Sunday, July 10, from 6-9 p.m. The instructor, David Comando, is certified by the National Association of Underwater Instructors. The course will cost \$130 and be held in the campus gym, using the university's pool. Open water dives will be planned after the course. For information, call the Crafts Center, 632-6822.

On June 17, the Crafts Center will also begin its Friday evening workshops of open, non-instructional figure drawing. Workshops will be held from 7-9 p.m., through August 12. No preregistration is necessary, and the \$3 fee is payable at the door. Call 632-6822 for more information.



Farmers' Market Opens Next Week

The Wednesday Farmers' Market at BNL will begin its 7th season on June 8. Farmers will truck their fruits, vegetables and floral products to the same spot as in previous years — north of the tennis courts in the parking lot along Brookhaven Avenue. The market, which is not open to the general public, will be held on site every Wednesday through November 23, from 11:30 a.m. to 1:30 p.m.

Arrivals & Departures

Arrivals

- Michael Curley Plant Eng.
- Asok K. Dasgupta Medical
- Ove H. Dyling Plant Eng.
- Susan E. Gabusi DNE
- Robert F. Lambiase DNE

Departures

- This list includes all employees who have terminated from the Laboratory, including retirees:
- James H. Brownell Physics
 - Ellen P. Gannon-Weider S&EP
 - Alan I. Goldman Physics
 - John J. Hennessy Plant Eng.
 - Anthony Kaczmarczyk Cent. Shops
 - Stanley W. Pollack DAS
 - Raymond F. Reilly Plant Eng.

—photos by Stoutenburgh



Upfagrabs took the championship in League I: (front, from left) Susanna DePanfilis, Barry Karlin, Sandy Lane; (rear, from left) Walt Reams, Bill Kropp, Rong Li; (missing from photo) Jean Spears.



Top honors in League III were won by Sourcerers: (front, from left) Erik Johnson, Nancy Lazarz, Mike Sagurton; (rear, from left) Carrie Grimshaw, Alastair MacDowell, Dean Chapman, Carol Hirschmugl, Sue Ellen Gerchman; (missing from photo) Donna Cyr.

Cafeteria Menu

Week of June 6

Monday, June 6

Beef noodle soup	(cup)	.75
	(bowl)	.95
Baked ham w/raisin sauce & 1 veg.		2.95
Sautéed chicken livers w/1 veg.		2.75
Fried fish w/1 veg.		2.85
Summer fruit fiesta plate (lite-weight)		2.25
Hot deli: Pastrami	(bread)	2.75
	(roll)	2.85
	(hero)	2.95

Tuesday, June 7

Chicken noodle soup	(cup)	.75
	(bowl)	.95
Italian lasagna w/meat sauce & garlic toast		2.85
Shrimp chow mein over rice		2.85
Spinach, bacon & egg chef's platter (lite-weight)		2.25
Hot deli: Grilled Monte Cristo sandwich		2.85

Wednesday, June 8

U.S. Senate bean soup	(cup)	.75
	(bowl)	.95
Braised Swiss steak w/gravy & 1 veg.		2.95
Baked fish w/Creole sauce & 1 veg.		2.95
Buttered baked fish w/1 veg. (lite-weight)		2.85
Hot deli: Roast breast of turkey	(bread)	2.75
	(roll)	2.85
	(hero)	2.95

Thursday, June 9

Chicken vegetable soup	(cup)	.75
	(bowl)	.95
Baked meat loaf w/ gravy & 1 veg.		2.85
Veal curry over rice w/1 veg.		2.95
Pizza deluxe	(slice)	1.35
Chef's salad plate (lite-weight)		2.25
Hot deli: Corned beef	(bread)	2.75
	(roll)	2.85
	(hero)	2.95

Friday, June 10

New England clam chowder	(cup)	.75
	(bowl)	.95
Roast turkey w/gravy & 1 veg.		2.85
Stuffed green peppers w/1 veg.		2.85
Baked fresh fish w/1 veg.		2.95
Hot deli: Two chili dogs on a bun		2.85

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.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

2868. **MANAGER, TECHNICAL INFORMATION DIVISION** - Requires an MLS degree or equivalent capabilities (an undergraduate degree in a scientific discipline highly desirable), significant library management experience, and knowledge of computer-based information systems. Responsibilities will include the management of a staff of professional and support personnel, and the preparation and control of budgets. Technical Information Division.

Autos & Auto Supplies

- 87 TOYOTA PICKUP - a/c, am/fm cass., loaded, mint cond., \$8,500. 567-6658 after 5 p.m.
- 84 FORD MUSTANG - excel. cond., console, am/fm/tape, p/s, p/l, a/c, sunroof, alum. wheels, s/t, 2.3 lt., \$4,500. Ext. 4846.
- 84 CHEVETTE - new tires, excel. cond., am/fm, a/t, best offer. 878-0874.
- 84 NISSAN SENTRA DLX - 4-dr., a/t, a/c, am/fm, cass., alarm, 22k mi., front left end damaged, will sell for parts. Ext. 2679 or 472-6922.
- 84 CAMARO Z-28 - red, black int., a/t, a/c, p/w, 39k mi., mint. 929-5893 eves.
- 84 CHEVY CAVALIER - 4 dr., a/t, p/s, p/b, a/c, c/c, stereo, excel. cond. 265-4714 after 6 p.m.
- 83 TOYOTA COROLLA - a/t, a/c, 77k mi., silver, \$3,600. Ext. 4510 or 473-7017 eves.
- 83 FORD ESCORT - 2 dr., 4-spd., excel. cond., \$1,500. 286-2307.
- 83 BUICK REGAL - a/c, p/s, am/fm, beige landau top, excel. cond. \$5,200 neg. Ext. 2964.
- 83 FORD LTD - wagon, one owner, excel. cond., new tires, fully loaded, 50k mi., \$4,300. Ext. 2384 or 475-1916.
- 82 DODGE ARIES - 4 cyl., am/fm, stereo, cass., new brakes, tires, excel. cond., 4-dr., \$1,995. 363-9527.
- 81 CHRYSLER LEBARON - s.w., 6 cyl., a/t, p.s, p/b, a/c, good cond., asking \$1,450. 475-2509.
- 81 VW RABBIT - diesel, whole or parts, \$100, neg. 821-3086.

81 BLACK CAMARO - a/c, c/c, V-6, Alpine stereo and e.q., 80k mi., \$3,500. Mike, Ext. 2434.

80 FORD FAIRMONT - 60k mi., white/tan interior, 4-dr., 6-cyl., p/s, p/b, a/c, new tires, clean, \$1,300. 924-6610.

80 OMNI/HORIZON MANUAL - \$5. Ext. 2679 or 472-6922.

80 CITATION - p/s, p/b, am/fm, a/c, a/t, runs well, many new parts, \$800. Peter, Ext. 4791 or 3118.

80 MUSTANG - Chevy 350, new trans., engine, rear, asking \$4,500. John, Ext. 5222 or 698-5701.

80 MONZA - 4 cyl., 4-spd., looks good, needs some work. \$850. Ext. 2175.

80 MERCEDES BENZ 240D - excel. cond., \$8,000. Ext. 4112 or 727-1782.

79 FORD PINTO WAGON - 4-spd., am/fm, new exhaust, reliable, good cond., \$575 neg. Graham, Ext. 4253 or 331-4171.

79 MUSTANG - 8 cyl., p/s, p/b, a/c, am/fm, cass., good cond., asking \$2,000. Ext. 2175 or 399-0224.

79 COUGAR XR-7 - fully loaded, leather seats, \$800. Tony, 698-9274.

78 FORD MUSTANG - V-6, a/t, p/s, p/b, new tires, runs well, \$850. Ext. 2326.

78 FIAT SPIDER - new top, paint, 2 tires, rebuilt motor, needs steering gear box, \$2,250. Tallon, Ext. 4847 or 473-3987.

76 CADILLAC SEVILLE - br/tn interior, 350 V-8 fuel injected, low mileage, new exhaust, p/s, p/b, needs body work, \$1,000. 924-6610.

75 PLYMOUTH VALIANT - runs well, many new parts, \$400. Susanna, Ext. 3959.

75 FORD GRANADA - p/s, a/c, 4-dr., high miles, good trans., \$400. 286-3791 after 5 p.m.

69 & 70 VW CARMANN GHIAS - 2 good engines, 1 good body, good interior and glass. Best offer. Ext. 5110.

66 LINCOLN CONTINENTAL - excel. cond., 41k mi., all power, 4-dr., one owner, garaged, \$3,000 firm. 924-3431 or 924-3783.

57 CHEVY - 4-dr., m/t, 6 cyl., orig. eng., blk/wh Belair, mint, \$4,000. Andy, 883-1538.

HELMET - motorcycle, red, excel. cond., \$25. Jim, Ext. 3372 or 821-0250.

MAG WHEELS - 4-for Mustang GT 1982, 4 lug., asking \$250. John, Ext. 5222 or 698-5701.

TIRES - 4 P235/75 DN, Ford 15" rims, like new, \$275. Ken, Ext. 2350 or 588-2389.

ATV - H.D. pipe frame & running gear, v.g. shape, needs engine, asking \$200, neg., incl. tow bar. Ext. 4561.

TIRES - 2 Dunlop, belted, P215/75B15, \$30; Volvo rims, 2 - 15", \$20. Bill, 929-6442.

TRAILER - car carrier, home-made, as is, \$200 or best offer. Pete 399-2813 after 5:15 p.m.

Boats & Marine Supplies

28' MORGAN - 1971, keel/centerboard, sleeps 5, autopilot, VHF, knot/log, \$18,000. 286-3675.

27' TARTAN - 9 sails, VHF-FM, DF/RDF autohelm, compass, refinish top side, many extras. 669-9292 after 6 p.m.

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

15' TRAVELER - 50 hp Evinrude, trailer, skis, \$1,200. 821-1042.

14' BLUEJAY SLOOP - w/trailer, as is, \$300 or best offer. Ext. 7657 or 924-2933.

12' AQUACAT CATAMARAN - w/trailer, new tramp, new parts, sail excel., seats 2-4, \$850. Ron, 744-1194.

SAILFISH - red/white, good cond. \$250. Jim Ext. 3372 or 821-0250.

79 JOHNSON OUTBOARD - 140 hp, excel. cond., \$1,650. 744-9015 after 5 p.m.

OUTBOARDS - circa 1958, 35 hp & 25 hp +. Ext. 5286.

Miscellaneous

JAPANESE RED MAPLE TREES - size \$10-\$35; wrought iron railings, for 3 steps, \$100/2. Ext. 2214.

TOPSOIL - delivered, 10 yds. min. 924-9427 after 7 p.m.

STRAWBERRIES - pick your own in weed free patch in Center Moriches. Chris, 878-0621 for times during June.

HYBRID IRIS - mixed colors, green and variegated hosta. 732-5451 eves.

STEREO - receiver, turntable, loadspeakers, together \$250 or separate. Walter, Ext. 3959 or 732-0989.

COLONIAL SOFA - rocker, ottoman, \$200; trunks, ping pong table, \$20; wood lathe, \$60; sofa bed, \$50; humidifier, \$20. 472-1409.

SEARS KENMORE DISHWASHER - undercounter, works fine, \$25. Ext. 2679 or 472-6922.

SEARS LAWN MOWER - 20" gas, side bagger, \$35; nylon carpet, 11'x11', orange print, \$75. Bill, 929-6442.

SEARS TRACTOR - 12 hp, 42" mower, 48" plow, dozer, blade, tiller, cultivator, \$580. 548-6002, eves.

CONSOLE STEREO - am/fm radio and turntable, excel. cond., \$35. Ext. 2625 or 467-8297 eves.

MOVING - lumber used & new, 2x4, etc., plumbing equip. etc., cleaning cellar, make offer. 475-1254.

POOL EQUIPMENT - for 18' round, alum. ladder, solar cover, winter cover, \$120. 584-6002 eves.

B/W TV - 5" portable, new, still in box, ideal Fathers Day gift, you can carry it any where, \$45. 878-2239.

HUFFY BMX BICYCLE - 20", spoke wheels, red, good cond., \$25. Ext. 3578 or 395-1969.

ASSORTED CARPENTER'S TOOLS - and fishing equipment, skill saws, fishing rods, etc. Helen, 399-0969.

IBM TYPEWRITER - Model C, standard, good cond., long roller, \$80. Dave, Ext. 2694 or 941-9022.

SPACKLE BUCKETS - 5-gal., empty and clean, \$1.00 a piece. 878-0357.

MOVIE CAMERA - GAF XL 251, super 8, auto-zoom, excel., \$45. 744-9677.

MODEM - 1200 baud, Hayes compatible, new, in box, \$125; Sears dishwasher, under counter unit, \$50. Ext. 2326.

BIKES - boy's 20", \$10; Greysigma, Huffy, 22", \$50; girl's Spordie Huffy, 20", \$30; Gibson refrigerator, \$150. 286-8554.

WALL PANELING - 4'x8', 18 pieces, \$3.00 each; building lumber, 2x6x8', 16 pieces, \$2.00 each. Ron, Ext. 7533 or 286-0353.

AQUARIUS COMPUTER - w/16k memory, data recorder, printer, file form, etc., make offer. Ernie, 588-4987.

CAPTAIN'S BED - twin size, built on 4 drawers, 2 cabinets, 2 bookcases, half closet, solid oak, \$395. Jack, 282-4447 or 744-3919 after 5 p.m.

HEATHKIT FM TUNER - AJ15, 1820 Realistic 40-channel CB one-hander, \$20; Maxell recording tape, 7", VDXL, 10/\$6. 929-4326.

COLOR GRAPHICS CARD - w/parallel printer port, XT/AT compatible, \$35. Bernie, Ext. 4842.

COMMODORE 64 - color monitor, disk drive, star-printer, modem, joy stick, software, games, make offer, 473-2473.

SCREENS & STORM WINDOWS - wood, 9 each, good cond., \$35. Cliff, Ext. 3794.

DESK - wood-grain steel w/cabinet, 30" D x 60" L, good cond, \$25. Ellen, 399-2813 after 6 p.m.

Free

ONE POUND COFFEE CANS - empty. Charlie, Ext. 4758.

KITTENS - 6 weeks old. Mike 821-9709.

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 - 4 bdrm., 3 1/2 baths, Jacuzzi, in walking distance of bay and village. 286-0269 eves.

BROOKHAVEN - 2 bdrm. house, June 1-Sept 15, \$450 + util. 475-8440 eves.

BROOKHAVEN HAMLET - room, share house, 4 bdrm., 2 bath, w/2 other professionals, 3/4 acre, wooded, \$350. Sidney Stafford, 286-4028, or Randy, Ext. 3835.

CALVERTON - 2 bdrm. townhouse, 5 appliances, f/p, cac, w/w, fenced patio, upper deck. 878-0874 after 5 p.m.

HUNTINGTON - apt., kit., l/r, bdrm., bath, 2nd fl., priv., \$465/mo. + util., no pets, avail. July 1. Ext. 2907, 2913 or 698-0576.

RIDGE - Strathmore, 2 bdrm. townhouse, 1 1/2 baths, close to Lab., \$675/mo. + util. Ext. 3346 or 345-3584.

SHIRLEY - one block east of Wm. Floyd, 10 min. from Lab., 2 1/2 rm. studio apt, driveway, one working, mature person, \$450 mo. Helen, 399-0969.

SHIRLEY - new 1 bdrm. apt., l/r, eik, full bath, w/w, priv. ent., working person or couple, \$575/mo. incl. util. 281-1840 eves.

SOUND BEACH - new 1 bdrm. apt., priv. ent., single, non-smoker, \$550/mo. incl. all. Ext. 7918 or 744-3068.

SOUND BEACH - spacious studio apt., lg. kit., full bath, close to beach & shopping, only 9 mi. to Lab. \$575 all, two months sec. 744-3284 after 6 p.m.

STONY BROOK - 3 bdrm. Cape, 1 1/2 bath, lrg. l/r w/tp, eik, screened porch, bsmt., 1-car gar., walk to RR & SUNY, avail. July 1 or Aug. 1, one-yr. lease, \$1,100. 751-0453.

HILTON HEAD, S.C. - 2 bdrm. condo, sleeps 6, beach, pool, golf, tennis. May-Sept \$420/wk. 585-9149.

For Sale

CENTER MORICHES - 3 bdrm. ranch, 1 1/2 baths, att. gar. and storage shed, lot sized 111'x160' on cul-de-sac, excel. loc. Ext. 2697 or 2674.

EASTPORT - 2 bdrm., l/r, kit., bath, full bsmt., 100x120 property, good loc., close to school & shopping, beautifully landscaped, \$115,000, firm. Ext. 2232 or 325-0835.

HOLBROOK - mint Timberidge cent. hall ranch w/brick front, 3 bdrm., 2 baths, oversized 2-car gar., d/r, l/r, den w/brk fp, new w/w, prof. Indscp., Sachem schools, \$169,000. Ext. 2679 or 472-6922.

LAKE GROVE - 3 bdrm. high ranch, possible M/D, cust. built, brand-new, must see, \$179,000. 732-7695.

MASTIC BEACH - waterview, 3 bdrm., f/p, city water, walk to beach and marina, \$120,000, neg. 399-1249.

MIDDLE ISLAND - 3 bdrm. A-frame house, eik, l/r, den, 2 f/p, att. 1 bdrm. apt., att. redwood deck w/outdoor year-round hot tub, 1 1/2 mi. west of BNL main gate on Longwood Rd. Ext. 2075.

MILLER PLACE - Scotts Beach, 4 bdrm. ranch, 1/2 acre plus, private beach community, sunroom, spa, pool, city water, \$190,000. Judy, 473-6631 after 5 p.m.

PORT JEFFERSON - Harbor Hills, 3 bdrm. Colonial, l/r w/tp, d/r, eik, 2 1/2 baths, all appliances, lovely yard, village amenities, mint cond., asking \$197,500. 473-4668.

RIVERHEAD - 4 bdrm. 2-level ranch, 2 baths, possible M/D, 2/3 acre, large l/r, den, deeded beach rights, quiet neighborhood, 5 appliances, \$150,000. 727-0499.

STONY BROOK - 6 bdrm., "S" section expanded farm ranch, 2 kitchens, in-ground pool, \$228,000. 689-7254.

YAPHANK - 3 bdrm. townhouse, end unit, brick front, full bsmt., attached garage, central a/c, w/w, 5 appliances, pools, tennis, clubhouse, many extras, \$129,000. 924-0612.

HOLLYWOOD FL. - 10 min. S. of Ft. Lauderdale, 3 bdrm., screened porch, fenced, shed, fruit trees, many extras, taxes \$327, \$67,000. 289-3586.

ROCKLEDGE, FL. - block & stucco, 2 bdrm., 2 bath, fam. rm. 11x25 porch, carpet, shades, some drapes, extras, good loc., \$64,500. 407-631-2840.

HILTON HEAD, S.C. - 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

HOUSE OR APT. TO RENT - to couple, July-Dec. min., ca. \$600/mo. Ext. 4493, 3846 or 727-4096.

MOWER - pref. B&S 3 1/2 HP, reasonably priced. Al, Ext. 2043.

HOUSESITTER - July 15 - Aug 15, 4 bdrm., Manor Park, Mastic, 10 min. from Lab, garden, pet feeding. Ext. 3578 or 395-1969.

PARTY-GOERS FOR BOAT RIDE - July 1, 1988, 7:30 p.m., Salsa disco, unlimited food, liquor, raffle, \$45 couple, \$25 single. Richard 231-5749.

DICTAPHONE - full-size cassettes. Kurt. Ext. 4116.

CEMENT MIXER/WET SAW/BOBCAT - to buy or rent. Tony, 698-9274.

PART-TIME SITTER - for 3-yr.-old boy, on-site. Ext. 7657 or 924-2933.

CHILD CARE - E. Moriches at your home, for 8-yr.-old girl, before and after school, starting in the fall. Mona, Ext. 5056 or 878-9384 eves.

HOUSE - for responsible professional couple, 2-3 bdrm., July-Sept, at least 1 month, Bellport-Brookhaven Hamlet. Ext. 4984 or 286-5620.

PART-TIME SITTER - 3 days + some weekend eves., well behaved 5-yr.-old preschooler, our home, Mastic. Ext. 5110 or 399-3087.

FRONT GRILL AND HEADLIGHT ASSEMBLY - header for 1976 Olds Omega. Ray, Ext. 4428 or 467-8297 eves.

MEN'S TENNIS RACKET - oversized, in good cond. Asher, Ext. 3372 or 3129 eves.

HAMMOCK STAND - Pete, Ext. 3297 or 821-9547.

HOUSE TO SIT - June, July & August. Ext. 4144.

LOVING HOME - for 2 all-white kittens. Lois, Ext. 2959 or 751-0023/751-5707.

AIR CONDITIONER - used, for window installation, good cond. Ext. 7697 or 689-2829.

TRIATHLON TRAINING PARTNERS - Quan, 744-8387 or Anh, Ext. 2022 or 2024.

HOUSE OR APT. - to rent, 3/4 bdrms., 1 1/2 baths, l/r, d/r, kit., w/d, family neighborhood, June. (914) 245-0907.