BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

# BNL: A Summer Classroom for Tomorrow's Scientists

## Summer Student Program

BNL's summer student program has alumni dating back to almost the beginning of the Lab itself, with many program participants going on to make significant contributions to science. But, as former students have observed, while the faces and the names are always changing, the experience of being a summer student at BNL has, for the past three decades, basically remained the same.

A number of BNL employees started their Lab careers as summer students, including Lab Director Nicholas Samios. Manny Hillman, a chemist in the Department of Applied Science, and Arthur Schwarzschild, chairman of the Physics Department, originally met as summer students in 1951. "The Lab was four years old then, trying to make its mark on the world, and everyone who came here was cherished," says Schwarzschild. Clothes and haircuts have changed, a cafeteria now stands where the dorm used to be, restaurants are within 15 miles, and there are bridges and buses to the beach, but 33 years later, the students are still learning the same lessons.

Arnold Srackangast, a senior meteorology major at Texas A&M, who is using statistics to analyze meteorology data at the Department of Applied Science, believes that, "This program has helped me see what research is like. I never had an interest in it before coming to BNL. You are not exposed to it as an undergrad, so this is a good preparation for graduate school." Simon Kaplan, a senior physics major at Oberlin, who has been working in the Accelerator Department, has appreciated the "practical experience with a research routine, learning how to store and analyze data for a large-scale experiment."

Hillman believes he was similarly influenced. "The summer students today come to BNL with a glamorous picture of research," he says, "but no idea of the detail and repetition it really entails."

Schwarzschild says the students this summer "look as fascinated as we were." Amy Smith, who graduated from Williams College and will be at Trinity in Cambridge for the next two years studying physics, would agree. This is a fabulous place. The facilities and people here are almost overwhelming. I've learned an awful lot about computer programming, mathematical techniques for solving problems, and also about photochemistry." Echoing her sentiments is Grace Yong, a senior physical chemistry major at Berkeley, who says, "As a science major you never feel like you know enough."

The program has influenced more than the students' career decisions. "This has been a beneficial summer for me because of the responsibility I've been given," says Krista Tills, who works in the Medical Department, studying the effects of electromagnetic fields. "I've learned how to take initiative." Tills, a bio-medical engineering graduate from Marquette, will be going on to Case-Western Reserve University this fall.

Future plans for the 63 summer students include graduate school, research and teaching. And since a few may return to BNL someday, their "good-bye" when the program ends on August 17 might more appropriately be "see you later."

—Sally Sargent

Alex Reben

A group of summer students get-together over lunch. Seated left to right are John Ropp, Steve Sprouse, Susan Waters, Felicia Straub, Anne Leong, Lance Holland, Charles Cho, Brian Wells, Amy Smith, Kenneth Jensen, Sherry Marcus, John Sonderricker and Neil Roeth. Standing left to right are John Spergel, P.J. Keizer, Micheal Di Stefano, Regina Wilson, Jay Herrington, Cydney Brooks and Howard Sporn.

## Health Physics Training

"It's interesting." "It's a lot of hard work." "It's an ideal work environment." These are some of the ways that students at BNL have traditionally described their work experiences.

Carl Granlund, a radiation health major at the University of Pittsburgh, can attest to these assertions. He and 16 other students have been gaining practical experience in radiation protection and control through BNL's summer health physics training program for graduate students.

Training supervisor Frank Marotta describes the program as being similar to an apprenticeship. "The goal of the program is to take the health physicist out of the school and theory situation," he says, "and to put him or her into as many practical health physics situations as we can."

Granlund is currently working as an operational health physicist at the National Synchrotron Light Source, under the supervision of Charles Flood, group leader of Building Safety Services. Granlund's role is to determine the radiation levels present at the Light Source and, if necessary, recommend measures to ensure that the levels remain low enough. He enjoys the job's diversity and has found one of its challenges to be able "to keep your temper when trying to explain to people that certain levels of radiation are safe."

Like Granlund, the other health physics students are also assigned to various jobs around site, under the supervision of staff members. In addition to working as operational health physicists, the students are given a tour of the Laboratory's health physics facilities and actively participate in a series of structured classroom and practical work situations. Also, they attend seminars given by the staff members and present their own seminars on topics in practical health physics.

Like many of the student programs at BNL, the health physics training provides valuable experience for its participants. Not only have students benefited from having BNL on their transcript, but many have completed work toward advanced degrees, and a few have stayed on as full-time employees after graduation. In fact, many of the staff members are former summer employees, and both they and those who hired them were familiar with the job expectations of the department. As a result, Marotta says, the program is reinforced by staff loyalty, and the employees are interested in the students.

— Maurice A. DuBois

Alex Reben

Show-Hwa Liu, from Northwestern University, gives a seminar on the physics of heavy ions in relation to biological and medical effects. Student seminars are held daily in the conference room at Building 535, headquarters for the Health Physics Training Program.

## Cooperative Education Program

Computer science and pharmacy — they have an odd ring together as a double major. But there's always a first, and Hong Kong native Wing Hong Lau is the only such student at Long Island University's Brooklyn campus.

He has been working at Brookhaven for the past six months through BNL's Cooperative Education Program (Co-op), the first student from LIU to be placed here. His official job responsibility is to lend programming support to the scientists in the Safety & Environmental Protection Division, and he is supervised by program analyst Nancy Fallon. Lau has taken his role a step further. "I found I could learn more than I expected to," he says. "I thought I'd be more engaged in working rather than learning. I found that I could not only pick up a lot of new concepts but that I could make a contribution while working."

Lau's time is spent maintaining data bases, programming, modifying programs and maintaining data files in computer systems. For his work, Lau, a sophomore, will receive three credits toward his bachelor's degree. As an extracurricular activity, he advises visiting Chinese scientists who aren't familiar with the CDC 6600 and 7600 computer systems.

Lau lives at Cavendish House on site during the week and goes home for the weekends to Brooklyn, where he has lived with his father, sister and nephews since he came to the United States three years ago. He makes extra pocket change tutoring youngsters in Chinatown in English and math. He also finds the time to teach his nephews "all kinds of things," including the Basic computer language, along with English and math. His English is good because he went to a secondary school where all the classes except Chinese Civilization were taught in English.

In addition to tutoring, Lau enjoys hobbies such as horticulture and hiking, along with simply daydreaming — "If I'm tired, bored, or not reading, it helps me relax." Lau's six-month term at Brookhaven ends next week. After graduation from LIU, he hopes to eventually apply his knowledge by working in some medical/computer field, especially one that deals with data basing.

BNL has three other Co-op students currently working on site, all at the National Synchrotron Light Source. Ian MacKenzie and John Bopp, of the Rochester Institute of Technology, and Alexis White, of the Rensselaer Polytechnic Institute, will all be completing their three-month terms.

— Maurice A. DuBois

Mort Rosen

Wing Hong Lau, from Long Island University, is one of four Co-op students currently on site.

# High School Apprenticeship Program

It may have been wet outside last Friday, but there was no rain on the students' parade. "Sometimes things work out less than ideal, but then we're not here for a vacation, we're here to work," declared program instructor Arthur Pitschi as his class settled down for last minute instructions. It was the final day of the four week Minority High School Apprenticeship Program at BNL, and in moments, Lab vans would arrive to transport the 15 students to Port Jefferson. There the oceanography research vessel "Onrust" was waiting to take the young crew for a sample collecting excursion on Long Island Sound.

For the fourth summer, with U.S. Department of Energy funds, BNL is sponsoring this program for Suffolk County minority high school students who show potential in science, mathematics or engineering. Thirty students, who will be entering the tenth and eleventh grade in the fall, were recommended by their school faculty to participate in one of the two four-week terms.

Each term is divided into four weekly segments taught by high school teachers: the first week is Physics, taught by William Lynch of East Islip H.S.; the second is Biology and Medicine, taught by Arthur Pitschi of Patchogue/Medford H.S.; the third is Chemistry, with Clayton Hudson of Central Islip H.S.; and the fourth is Energy and Engineering, again with Pitschi. Christine Moore is the teacher's aide for the program, which is coordinated by BNL's Renee Flack of the Director's Office.

In addition to morning classroom instruction and organized afternoon exercise, the students also visit research laboratories and participate in experiments and field trips related to the weekly topic. As part of the engineering section, the "Onrust" outing was planned to give the students exposure to the work of a marine engineer.

The trip was underway at 9 a.m. with lunches opened and sampled by 9:05. Inside, amid the clamour of the van, Arthur Pitschi, who has been one of the instructors since the program began, said with a smile, "I enjoy the quick pace with the self-perpetuating atmosphere. When the instructors are enthusiastic, the youngsters will respond the same way. The main reason for the program is to introduce the kids to different kinds of jobs." It helps in the regular classroom situation, continued Pitschi, by "keeping me up to date with the latest scientific research. As I relate this to the other science teachers, they can also keep current. I have also seen a real growth in people from the Lab, who help as lecturers and such, in their method of communication. I find that they relate very well to the kids now, so even the presenters have benefited from the program."

It is the students themselves, though, who are the chief benefactors. Above the deck, they braved the elements to take water and bottom samples and operated a plankton tow. Below, they listened to a talk on oceanography by George McMaus of the SUNY Marine Sciences Research Center at Stony Brook and later shared thoughts about the program. "I thought an engineer just wore a three-piece suit and sat behind a desk," laughed Renee Smothers of Riverhead H.S., as heads bobbed around her to echo similiar sentiments. For many of the students, the introduction to engineering added a new dimension in choosing both a college and a possible career. In addition to discovering an interest in engineering, Christophe Bell of Shoreham/ Wading River H.S. also received new inspiration for further science projects. "I saw some things here that have given me ideas for projects to do," said Bell.

The most popular segment was the week spent on chemistry, when, according to Richard DuBois of Mt. Sinai Jr. H.S., "We did a lot of things in a lab that we wouldn't normally have gotten the chance to do, things like making soap and aspirin." Timothy Brown of Longwood H.S. was equally pleased with the students in the program. "They're not what I expected. I thought they would be bookworms who wouldn't like to talk . These people are fun to be with," said Brown.

Before the trip was over, the students heard about the basics of navigation from Captain Helmut Stuebe and took turns piloting the boat. When the "Onrust" pulled into port, the damp but forever energetic group scuttled to the dock and squished its way to the vans. From somewhere in the crowd there came a wistful remark to summarize the program... "Too bad today is the last day."

—Sally Sargent

Captain Stuebe describes the finer points of navigation to Katrina Reaves, a tenth grader from Patchogue/Medford H.S.

With the guidance of SUNY Stony Brook oceanographer George McMaus, Adrienne Rosado from Longwood H.S. peers through the microscope to see organisms that live in the Sound. —photos by Reben

# BOCES Science Internships

"I expected somebody a lot older, maybe with gray hair." Steven Robbins paused as he grinned toward his instructor for the summer, chemist Robert McGraw. Actually, he has found that scientists are no different from other people — they come in all ages, shapes and sizes. And working with McGraw has been "just like working with my science teacher."

Robbins, who will enter 11th grade at Central Islip High School in the fall, was joined by 18 other students at BNL in July as part of the BOCES science internship for gifted and talented high school students in Suffolk County. The Laboratory has participated in the program since 1978.

Each student is assigned to work under the tutelage of a scientist for three hours each day. McGraw, an associate chemist in the Fuels, Catalysis, and Energy Utilization Division, DAS, has been teaching Robbins different methods to explore the growth and reduction of solid particles through vapor condensation or combustion. One method has been through writing his own specialized computer programs, and Robbins has done very well. "He really has a good feel for interacting with the computer," says McGraw.

Lisa Rignola will be a senior at Patchogue-Medford High School next year, and she has been working under chemist Manny Hillman, Chemical Sciences Division, DAS, on "millions of different things." Primarily, with help from Hillman's graduate student-assistant Sherie Michaile, of SUNY-Binghamton, she has been studying the reaction of a ferrocene derivative with a strongly acid solution, to generate hydrogen gas. The research is aimed at developing methods to produce hydrogen gas as a fuel in the future.

Both BOCES students have enjoyed their experiences at BNL. But what do they want to do in the future? Robbins isn't quite sure — perhaps he'd like to major in a computer field. Rignola enjoys working with people, and wants to go to college somewhere close to home. And she knows she "wouldn't want to spend four years working on an experiment!"

— Maurice A. DuBois

Robert McGraw (left) and Steven Robbins.

Lisa Rignola (left), with chemist Manny Hillman and his assistant, Sherie Michaile, at a vacuum line which is used for kinetic experiments in Hillmans's laboratory. —photos by Reben

Alex Reben

VISITING ENGINEERS from the People's Republic of China gaze upward as a newly-designed Fast Extracted Beam horn is lifted by a hydraulic crane into the tunnel of the Alternating Gradient Synchrotron. With BNL's Eddie Meizianka (left), a rigging crew lead man, and project engineer Tom Blair (second from right) are, from left: Zhu Fu Quan, Zhang Su Chen, Lu Bing Yan and Shi Yin Sheng. The Chinese arrived at BNL last week as part of a U.S./P.R.C. cooperative program in high energy physics, a formal agreement to exchange information on accelerators. They work at the Beijing Electron Proton Collider, a major accelerator facility being built in China. The AGS was one of the first facilities on their itinerary, which also included a stop at the National Synchrotron Light Source, the High Flux Beam Reactor, the CBA site, and various facilities under Plant Engineering.

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BERNICE PETERSEN, Editor
MONA S. ROWE, Associate Editor
ANITA COHEN, Reporter
MARSHA BELFORD, Reporter

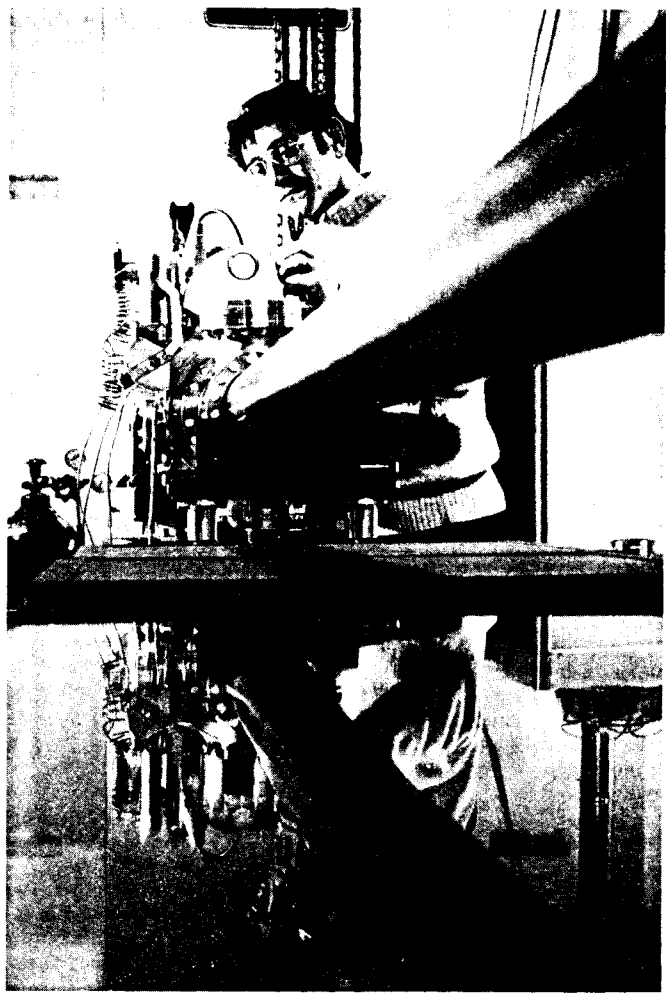
35 BROOKHAVEN AVE., UPTON, N.Y. 11973
Telephone (516)282-2345

# Sunday Tour To Feature Light Source

Bring your family and friends to the Lab this Sunday for a special program on BNL's newest major facility, the National Synchrotron Light Source (NSLS). Physicist Bill Thomlinson (at right) will be at Berkner Hall to give a slide-illustrated talk about the Light Source and the research done there, and bus tours of the site will include a stop at the NSLS for a first-hand look at its experimental area.

Visitors can arrive at the Lab any time between 10 a.m. and 3 p.m. The NSLS lectures will begin in the auditorium at noon, at 1 p.m. and at 3 p.m. Site tours will be offered continuously throughout the day, and visitors are also welcome to explore the Exhibit Center, where dozens of lively displays describe Brookhaven's research.

The Sunday tour program will continue through the end of September, except for Labor Day weekend. The general tour, which takes about two-and-a-half hours, includes a slide show, a guided bus tour of the site, and a guided walking tour of the Exhibit Center. There is no admission charge, and children are welcome.



Mort Rosen

## Equipment Demo

The John Fluke Mfg. Co. will be in the lobby of Berkner Hall on Wednesday, August 8 to demonstrate general purpose test equipment, including process controllers, dataloggers, and Systems DUMS microsystem troubleshooters. Hours are 10 a.m. to 3 p.m., with free coffee and Danish.

## New Kindergarten At Just Kids

Just Kids, the early childhood learning center that serves Laboratory employees, has announced the addition of a kindergarten program to their preschool and daycare programs, beginning in September. In the mornings, children enrolled in kindergarten will follow a New York State-approved academic curriculum, and in the afternoons, they will be able to choose activities from an optional enrichment program which will include children's computer, music and instrument instruction, creative dramatics, dance, acrobatics, creative expression, astronomy, foreign language, and recreation.

Just Kids is a full-service center which offers extended hours and a lunch program. It is located on Longwood Road, about one mile west of the Laboratory. For information, call 924-0008.

## Cafeteria Menu

### Week Ending August 10

| | | |
|---|---|---|
| **Monday, August 6** | | |
| Turkey noodle soup | (cup) | .65 |
| | (bowl) | .85 |
| Cheese omelet & 1 veg. | | 1.85 |
| Beef pot pie & 1 veg. | | 1.85 |
| Hot Deli — Italian sausage hero | | 2.15 |
| **Tuesday, August 7** | | |
| Potato bacon soup | (cup) | .65 |
| | (bowl) | .85 |
| Eggplant Parmesan w/1 veg. & garlic bread | | 2.00 |
| Sauerbraten w/potato pancake | | 2.05 |
| Hot Deli — Corned beef | (bread) | 1.85 |
| | (roll) | 2.00 |
| **Wednesday, August 8** | | |
| Vegetable beef soup | (cup) | .65 |
| | (bowl) | .85 |
| Veal roulade w/sausage stuffing | | 2.10 |
| Crepe chix supreme & 1 veg. | | 1.90 |
| Hot Deli — Top round of beef | (bread) | 1.95 |
| | (roll) | 2.10 |
| **Thursday, August 9** | | |
| Navy bean soup | (cup) | .65 |
| | (bowl) | .85 |
| Beef hash & 1 veg. | | 1.90 |
| Scalloped ham & potato & 1 veg. | | 1.85 |
| Hot Deli — Pastrami | (bread) | 1.95 |
| | (roll) | 2.10 |
| **Friday, August 10** | | |
| Long Island clam chowder | (cup) | .65 |
| | (bowl) | .85 |
| Sweet & sour pork on rice | | 1.95 |
| Stuffed fillet w/Newburg sauce & 1 veg. | | 1.90 |
| Hot Deli — Roast turkey & Swiss in pita | (bread) | 1.95 |
| | (roll) | 2.10 |

## Oink! Oink!

Did you know that a pig is the most intelligent animal on the farm and will eat only as much food as it needs? There aren't many places to see pigs on Long Island, but pigs abound at the Suffolk County Farm and Education Center in Yaphank.

New to the farm this season is a class for junior high school students entitled "Those Wondrous Pigs." After a guided tour of the Farm, students attend a class to learn about the history, reproduction, birth, scientific research and personality traits of the pig. Activities include viewing a film on the birth of baby pigs, studying the pig fetus and holding a young pig.

Operated by the Cooperative Extension Association of Suffolk County, the Farm is a 300-acre working production farm where visitors can also see beef cattle, poultry, turkeys and sheep. The Farm is open weekdays for guided tours and farm classes (by reservation only) and seven days a week for self-guided tours. For more information or reservations, call 924-4535, Ext. 507.

## Hospitality News

Gillian Love, chairperson of the BNL Hospitality Committee, will be the guest speaker at the next morning get-together on Tuesday, August 7, at 9:30 a.m. in the Recreation Bldg. in the apartment area. The topic of Mrs. Love's presentation will be "Basic Flower Arranging."

All wives of employees, guests and visitors are welcome. Please come and bring the children. Babysitting will be provided free of charge. Coffee, tea and danish will be served.

## Arrivals & Departures

### Arrivals

**Tsong-Lun Chu** ..... DNE

### Departures

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

**Edward Der Mateosian** ..... Physics
**Mary R. Dohrman** ..... S&EP
**Boyce H. Grier** ..... Physics
**Donald F. Koenig** ..... Biology
**Robert Lehn** ..... Central Shops
**Michael Stravino** ..... Medical
**Steven H. Wade** ..... DEE
**Wladyslaw Zakowicz** ..... Physics
**Edward A. Zeidler** ... Instrumentation
**Richard J. Zahra** ..... NSLS

## Summer Specials

**Hershey Park**

Date: August 11, 1984.
Time: 7:00 a.m.
Place: Brookhaven Center.
Price: $30 — includes transportation, admission to park, snacks and soft beverages.

Tickets are sold on a first come, first served basis. For further information, contact Renee Flack or Alethea Futch, Ext. 3316, Bldg. 460.

**T-Shirts**

White with blue printing.
$5, cash or money order.

Get your order to Renee Flack, Bldg. 460, by 3:30 p.m. today.

## BERA News

### Afro-American Club

All BNL employees are cordially invited to attend a slide presentation on Thursday, August 9, at noon in Berkner Hall, Room B. The slide presentation, entitled "The Gateway to Africa for Millions of Black Roots," is a collection of slides taken by Larry Toler, Physics Department, and Stan Ruth, of Riverhead, during a recent visit to Dakar, Senegal and Gambia, West Africa.

### Vaudeville Auditions

All you talented BNL performers are reminded that auditions for this year's BERA Vaudeville Show will be held in Berkner Hall at 7:30 p.m. on Monday, August 13 and Wednesday, August 15. Bea Satz, our professional piano accompanist, will be there on August 15 only.

We are interested in short acts (up to 5 minutes) of all kinds — comedy, magic, juggling, singing, dancing, instrumentalists, etc. You will be asked to "work" for one dress rehearsal (on August 23) and two performances (August 24 & 25). The shows, which are suitable for a family audience, are presented in a cabaret setting in the Brookhaven Center.

If you have any questions, call the director Jane Love (286-1136) or Penny Baggett (Ext. 5154).

## 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. 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 Personnel Placement Supervisor, Ext. 2882.

**LABORATORY RECRUITMENT** — Opportunities for Laboratory employees.

2090 RESEARCH ENGINEER - Requires BS or MS degree in electrical engineering or equivalent. A diversified background in several phases of electronics is a prerequisite along with established creative design skills. Individual will work with the Accelerator Department Controls Section on new or improved control and instrumentation devices. Accelerator Department.

2091. REACTOR SUPPORT ENGINEER - Requires Bachelor of Engineering degree. High mechanical aptitude and previous reactor operation, design or maintenance experience is desired. Naval reactor experience is preferred. Ability to obtain a "Q" clearance is required. Individual will be assigned to the High Flux Beam Reactor Group for qualifications as HFBR Shift Supervisor. Reactor Division.

**OPEN RECRUITMENT** — Opportunities for Laboratory employees and outside applicants.

2092. NUCLEAR REACTOR OPERATOR TRAINEE - (Two positions) Requires AAS in a technical field or equivalent experience. Prior reactor background and experience in maintaining and operating electrical and mechanical equipment very desirable. Must be able to work rotating shifts, obtain "Q" clearance and maintain reactor qualifications. Will operate and maintain HFBR and auxiliary equipment. Reactor Division.

2094. REFRIGERATION AND A/C ENGINEER - Requires substantial experience trouble-shooting, repairing, installing and operating commercial/industrial air-conditioning and refrigeration equipment including steam absorption, centrifugal and helical screw refrigeration machines. Successful completion of refrigeration and A/C apprenticeship program or related course work is highly desirable. Must be available to work shifts as required. Plant Engineering Division.

2095. PATROL OFFICER POSITIONS - Requires AAS degree in criminal justice or equivalent experience performing diverse security duties for a large organization. Excellent communication skills are necessary as well as ability to work shifts. Will participate in comprehensive training program in order to become knowledgeable of site and police procedures. Safeguards and Emergency Services Division.

## Autos & Auto Supplies

76 HONDA 750 - excel. cond., asking $925. 363-7032.

75 JAGUAR XJ6L - 1975 body, mint, brand new 327, 300 HP Corvette engine, leather interior, p/w, a/c, very clean. 473-4493 days or 928-1236 nights.

73 PLYMOUTH FURY II - 4 dr., p/s, p/b, good transp., orig. owner, $450. 654-5411.

74 FORD TORINO WAGON - a/c, p/s, p/b, low orig. miles, very good cond., $1,500. 744-4611 after 6 p.m.

76 TOYOTA COROLLA - clean, excel. running cond., 24 mpg, $1,500. 588-5226 or 924-5310 Ext. 401.

PORTABLE TOW HITCH - mounts on bumper, super heavy duty, $25. 727-3608 after 5 p.m.

75 MGB CONV. - am/fm, 8 track, 81,000 mi., good cond., $2,600. John, Ext. 7671.

75 VEGA HATCHBACK WAGON - $500. Ext. 2231.

COACHMAN BUNKHOUSE TRAILER - 28', sleeps 9, self cont., like new, $8,500. 732-5445.

76 FORD GRANADA - auto., 6 cyl., no rust, excel. cond., must sell, $1,200. Shiao, Ext. 4996.

USED TIRES - 15", 14" radial. 473-6432.

78 TOYOTA CELICA GT HATCHBACK - 5 spd., p/s, p/b, a/c, am/fm/8 track stereo, new brakes, shocks, s/b radials, $4,000. Ext. 2829.

HITCH BALLS - 1-5/16" diameter, new, $10/ea. Ext. 4028.

74 OPEL MANTA LUXUS - auto., 4 cyl., great motor, bad body, $425. Mark, Ext. 4028 or 734-7561.

78 HONDA MOTORCYCLE CB550 - excel. cond., many extras, $975. George, Ext. 7654.

72 VW SUPER BEETLE - rebuilt engine, $700. Ext. 2613 or 281-4080.

68 COUGAR - runs well, needs some work, new front end. Rich C., Ext. 3499.

78 HONDA MOTORCYCLE - 750K, plexifairing, travel trunk, backrest, case guards, excel. cond., $1,050 firm. 360-3808.

75 LINCOLN MARK IV - 2 dr., silver, good cond., $3,500 or best offer. Ext. 3141 or 727-1886.

70 VW POP UP CAMPER - $1,600. 475-1665.

HONDA XR80 DIRT BIKE - excel. cond., $400. Neal, 286-2435.

82-1/2 YAMAHA - 750 Virago, shaft drive, only 800 mi., new, asking $2,350. 261-5448.

79 SAAB 900 EMS - sunroof, am/fm cassette, velour int., excel. mech. & ext. Ext. 5138 or 473-5095 eves.

76 VOLARE WAGON - has new parts, high mi., body rust, price neg. 744-9475 after 6 p.m.

79 MERCURY BOBCAT - hatchback, auto., am/fm, a/c, p/s, p/b, excel., $2,750. 567-4333 or 924-4965 eves.

81 KAWASAKI - 650, 4,000 mi., $900. Jack, 757-1380.

70 SAAB - runs, $125. Ext. 4597 or 924-8213 after 5.

75 MALIBU - p/s, p/b, auto. trans., good cond., $850. Ext. 4688 or 929-4631.

PICK-UP CAMPER - 11', slide-in, self contained, sleeps 6, alum., step bumper, excel. cond., $2,395. 821-1081.

66 FORD MUSTANG - runs well, 6 cyl., auto., p/s, asking $650. 286-2964 eves.

76 FORD PINTO WAGON - 58K, 4 spd., am/fm stereo cassette, very good cond., clean, $1,000. 289-1883.

YAMAHA - 360cc, windshield, new tires, $900. 744-6287 after 7.

81 KAWASAKI MOTORCYCLE - 440 LTD, black, low mi., must sell, $1,000. Greg, 289-6519.

68 CAMARO - 60,000 mi. on engine, 190,000 on rest, body so-so, make offer. Bob, Ext. 2363.

80 SUZUKI - RM 125, w/helmet, good cond., $400 firm. Ext. 3725 or 325-1080 after 5.

73 OLDS CUTLASS - good for parts; 1976 Chevy Impala, $700. 281-0393.

69 BUICK - 4 dr., V8, auto., p/s, p/b, a/c, good transp., 2 new tires, $149.99. John, Ext. 3292 or 286-1348.

73 DODGE POLARO - station wagon, good cond., $200. 654-9058 after 5:30.

76 PLYMOUTH VOLARE - excel. transp., $900, avail. end Aug., must sell. Tom, Ext. 3128 or 928-7344 eves.

76 DODGE VISION VAN - 225 slant 6, customized, am/fm, 40 CB, $2,500. 286-3435.

72 BUG - excel. cond., am/fm cassette, many new parts, $850. Ext. 3059 or 744-7242 after 6 p.m.

80 HONDA ACCORD - hatchback, am/fm stereo, good cond., 5 spd., $3,600. 286-8356.

74 SUZUKI - RM400, Super Cross, needs some work, $600; bike trailer, $300. 732-6311.

78 CADILLAC SEDAN - D'Elegance, velour vinyl top, full power, wire wheels w/locks, excel. cond., $4,900. Ext. 3319 or 744-9802.

76 OLDS - 4 dr., low mi., clean, asking $2,500. Kevin, 567-6651.

79 YAMAHA 400 - black, 5,000 mi., windshield, rack, engine guards, excel. cond., (2) Aries helmets, $800. John, 929-8204.

79 BUICK REGAL - V6, auto./console, a/c, p/s, p/b, am/fm stereo, chrome wheels, very sharp, $3,950. Dave, Ext. 3867.

73 FORD MAVERICK - needs work, $190. 821-1042.

82 FORD T-BIRD - Landau, auto., p/s, p/b, loaded, low mi., excel. cond. Ext. 6300 or 567-4333 days or 567-1395 eves.

68 VW - runs, no rust, very good radials, am/fm 8-track stereo, must sell, cheap. Bill, Ext. 4938.

73 TOYOTA COROLLA WAGON - good cond., needs work on elec. system, price neg. 744-9475 after 6 p.m.

73 MUSTANG - 6 cyl., auto., good int., runs well, needs body work. Ext. 4742 or 929-3354.

80 YAMAHA MAXIM 650 - low mi., good cond., black w/mag rims, extras, must sell, $1,400 or best offer. Mark, Ext. 5353 or 727-1429.

75 DODGE PICKUP - 3/4 ton, 4 WD, auto., p/s, p/b, am/fm, $1,500. 472-4228.

BIKE RACK - for VW Bug, $12. 689-7388 eves.

74 DODGE DART SPORT - a/t, p/s, p/b, bucket seats, new steel radials, brakes, asking $500. Ext. 4607 or 368-0452.

CROSS BED TOOL BOX - & front/rear bumpers for Chevy C-10 pick-up. Jim, Ext. 4040 or 289-0876.

77 BUICK SKYLARK - excel. mech. cond., 2 dr., must sell, $1,500. 281-5636.

TRAILER TIRE - & wheel, new, 5.30x12, 4-hole, $25. Joe, Ext. 2575 or 281-2767 eves.

77 TRANS AM - orig. owner, 44,000 mi., brown/-saddle, t-top, mint cond., $5,000. Ext. 3319 or 924-7677.

AUTO CASSETTE PLAYER - Music Cruiser, $20. Lou, Ext. 4364.

78 CADILLAC - 4 dr. sedan, D'Elegance model, 66,000 mi., excel. cond., cruise control, full power. 744-9802.

73 MERCURY MONTEGO - 4 dr., 65,000 orig. mi., $1,300. Pete Eterno, Ext. 4167.

72 VW BUG - excel. cond., am/fm cassette, many new parts. Ext. 3059 or 744-7242 after 6 p.m.

TIRES - & white spoke rims, L78-15, for Chevy 6-lug, $100. Ron, Ext. 7696 or 289-1003.

80 KAWASAKI MOTORCYCLE - 440 LTD, runs well, rooster fairing, stereo, new tire, spockets, chain, $700. 399-0168.

77 BUICK ESTATE WAGON - all power, excel. cond., $2,500. Ext. 4490 or 289-9724.

76 DATSUN B210 - good running cond., 30+ mpg, am/fm stereo, asking $800. 744-2715.

76 HONDA 750 - excel. cond., must sell. 363-7032.

YAMAHA - 75cc, 10" wheels, road bike, 200 mi., auto., 4 spd., like new. Charlie, Ext. 3897.

73 PINTO - red, 2,000cc, good cond., $450. 472-4228.

75 YAMAHA RD-250 - 10,000 mi., looks & runs like new, best offer over $600. Andy, Ext. 2907 or 929-4850.

HONDA - 200cc, windshield, fairing, new battery, $400. Ext. 3372 or 744-6287 after 7.

80 HONDA ACCORD - hatchback, good cond., am/fm, 5 spd., $3,600. 286-8356.

71 CAMARO - 350, auto., am/fm cassette, clean, asking $1,500. Ext. 3924.

NAPA TUNE-UP KIT - 8 resistor spark plugs, new for GM 307 8 cyl., sold car, $8 all. 581-6432.

DUNE BUGGY GO-KART - trike tires, disc brakes, 5 HP Briggs, mint cond., $450. 475-1388 weekends.

## Boats & Marine Supplies

18' RUNABOUT - 90 HP Merc, many new and rebuilt items, will demo., $2,400 neg. 744-5143.

AMF SUNFISH - new trailer, beach wheels, excel. cond., asking $1,100. J. Guthy, 929-8287.

27' CABIN CRUISER - Chrysler V8 inboard, all canvas, back canopy, sleeps 4, head, sink, extras, wood, $2,300. 732-2720 or 595-3283.

7' DINGHY - wood, fiberglassed, w/oars; 10 spd. elec. trolling motor, both $150, or sell separately. Dan, Ext. 4403.

9' JON BOAT - fiberglass, $200. 751-6418.

21' T-CRAFT - 1972, w/trailer, VHF, porta-potti, 307 Chevy OMC I/O, canvas, excel. cond. 744-9802 after 6 p.m.

AMF SUNFISH - very good cond., used 3 yrs., white/red stripes, tequila sunrise sails, $750. 654-3428 days or 286-1927 after 4.

12' SAILBOAT - sunfish type, glass over wood, good for beginner, $200. Harry, Ext. 7578.

OUTBOARD MOTOR - 5 HP, new, $350. 298-8601.

## Miscellaneous

COUNTER TOP - contoured butcher block, new, 8 ft., $30; bar stools (2), spindle back, $50/ea. Tom, 286-4650.

COUCH - contemporary design, good cond., blk/rust/beige herculon, Broyhill, $75. Ext. 5138 or 473-5095 eves.

COFFEE TABLE - new, never used, oval, colonial type, $75. 589-0643.

SULKY - for gravely and tractor model "L", reasonble. 363-7032.

TV - 12" black & white, RCA, needs some work, $20; cot, $12. 744-9677.

CABBAGE PATCH DOLL CLOTHES - everything from shoes to Halloween costumes, etc., from $2.50. 286-3623.

POODLES (TOYS) - female, one chocolate, one black, champion background, very reasonable. 473-6432.

BABY CARRIAGE - $35; carseat, $15; stroller, $10; B/W TV, $20; TV-table, $20; bathroom scale, $8. Ext. 3108 or 2341.

CHESS SET - hand carved onyx, inlaid onyx board, $40; mobile fm stereo radio, Craig Mod 1901 and two speakers, $60. Lou, Ext. 4364.

LOUVER VANITY WINDOWS - 3 ft. x 7 ft. Ext. 3859 or 286-1712 after 6 p.m.

CEILING FIXTURE - fluorescent, dining room or kitchen, brand new, $30. Susan, Ext. 4267.

AIR CONDITIONER - Fedder's, 7000 btu, 4 yrs. old, sacrifice; pool filter w/1 HP motor, excel. cond. 475-6938.

DESK SYSTEM - Rakks, wall mounted; 24" x 40" Formica pedestal table; world globe & stand, etc. Aronson, 689-8685.

COLECO TURTLE POOL - new, never used, 48 x 12, $10. 654-3781.

DINING ROOM - dark pine, hutch 80" high, 70" wide, 72" trestle table w/2 leaves, 5 captain's chairs, $950. 981-3750.

B&D HEDGE TRIMMER - 22 in., double cut, storage box included, $55. 298-8851 after 6 p.m.

MARQUIS DIAMOND RING - beautiful, two baguettes, total 1.0 pt., appraised, $3,125, asking $2,400. Maryann, 286-2435.

TORO ROTOTILLER - dinette, walnut; upholstered chairs, double enamel sink; oil drums, pair recessed lights. 325-1961.

MODERN SOFA - Kroehler, 90", 4 seat, yellow floral design, excel. cond., $150. 363-2070 eves.

MOVING SALE - mattresses; sofa; crib; food processor; toddler's car seat & bike seat; girl's bike; rocking chair. Till, Ext. 3525/3210.

BMX MONGOOSE BICYCLE - racing pads, excel. cond. Neal, 286-2435.

HEDSTROM CARRIAGE - used 1 yr., incl. windshield & basket, adjustable back, paid $90, asking $35. 286-3623.

WOOD BASSINET/MATTRESS - $45; playpen, $35; walkers, $10; infant seats, $10. 567-4333 days or 924-4965 eves.

DINING ROOM TABLE - walnut, w/leaves & pads, $100; swivel chair, upholstered, red, $35. 286-8517.

OFFICE WORK TABLE - woodgrain top, steel, 2-1/2x5', large storage compartment w/door, no drawers, $40. 581-6432.

METAL CABINET - 3 rolling drs., 9'Lx3'W, good cond., $50; 14 cu. ft. refrigerator, freezer on top, good cond., $50. 924-8224.

HEXAGON MARINE AQUARIA - 27 gal., fully equipped, stand, coral & stock, cost $550, asking $350. 475-1388 eves.

CAMPING EQUIPMENT - baby things; lamps; boy's bike; girl's bike; sewing machine; desk; coffee tables; console stereo; kerosene heater; redwood table, 4 benches. Gail, 979-9318.

SKIS - boots, poles, women's size 6-1/2, $75; quartz heater, $17; 18" Weber grill, $15. 689-7388 eves.

BICYCLE - small girl's w/banana seat, good cond., $20. Dick, Ext. 2911.

ELECTRIC TYPEWRITER - Smith Corona, script letters, like new; ITT touch tone trim line phone, brown, $40; Petite cone phone, ivory, $30. 751-6418.

FIREWOOD - full cord, split & delivered, $135. 399-0168.

BEAUTYREST MATTRESS - & boxspring & full size bed, mahogany, $50. Arnold, Ext. 4349 or 654-1326.

B/W TVs - (6), $2/ea.; Sears sewing machine & cabinet, $30; 5 spd. bike, $10; 10 spd. bike, $15; fireplace screen, $15. Victor, Ext. 2395.

DINING TABLE - w/2 leaves & 4 chairs, $100. Ext. 7708.

SUITCASE - 21"x14", brown leather, no keys to lock, good cond., $10. Nancy, Ext. 5274 or 281-2767 eves.

TYPEWRITER - Royal, standard office, excel. cond., $85. Pat, Ext. 2452.

JAPANESE COURSE CASSETTES - Linguaphone, texts, instruction, vocabulary, explanatory notes, reader, portable. 472-1397.

MAYTAG DRYER - apt. size, 115 volts, excel. cond., copper color, $75. 997-4429 eves.

HI-LO GAS RANGE - Caloric ultra ray, lower w/ rotisserie, avocado, $200. Ellie, Ext. 3395 or 325-1537.

GIBSON FREEZER - 18.5, good cond., $100. Don, Ext. 2043.

CHAIN LINK FENCE - galvanized, 2" mesh, 5" high, 1 piece 30' long, 1 piece 10' long, good cond., $35. Sam, Ext. 4749.

TICKETS - for Cats, (3), Aug. 6 $37.50/ea. Ext. 3701.

BRITISH RALEIGH BICYCLE - men's, 27", 3 spd., $160. Ray, Ext. 7509.

DOLL HOUSE - 3 floors, 33"x33", fully decorated, fully furnished, excel. cond., asking $150. 281-2731 eves & weekends.

BMX BIKE - 20", $50; kitchen/dining room buffet, walnut color, glass doors, $60. Ron, Ext. 7696 or 289-1003.

BOY'S BIKE - 3/4 frame, $30; oak rocker, $35; formica desk, $15. Tom, Ext. 3128 or 928-7344 eves.

RECORDS - from the 40's, over 250, carefully stored, hit 78's, $100. Marian, Ext. 3552 or 744-8639 eves.

UPRIGHT FREEZER - 19 cu ft., $100; 40 channel digital CB, like new, $75. Harry, Ext. 7578.

POLY-TYPE GREENHOUSE - 22'x100' fan, heating, sprinkling & water systems, $3,200. Jim, Ext. 4040 or 289-0876.

ISLANDERS HOCKEY STICK - KoHo w/25 team signatures, gotten during '84 playoffs. Charlie, Ext. 3897.

TENT - 7'x10', good cond., reasonable. 363-7032.

BICYCLING SHOES - brand new, Detto Saronni, size 46 (11-11-1/2), still in box, $35. Andy, Ext. 2907 or 929-4850.

CARD READER - HP41CV w/120 cards. Philip, Ext. 4273/days or Ext. 2516/eves.

COUCH - excel. cond., $125. 751-8240.

STEREO FREQUENCY EQUALIZER - ADC, 5 band/channel, 60, 240, 1,000, 3,500, 10,000 Hz, tape monitor, $35. 924-0813.

PINE COLONIAL END TABLES - excel. cond.; alum. shed in box, best offer. Ext. 7146 or 924-5422.

MANUAL OFFICE TYPEWRITER - Olympia SG3, pica, excel. cond., w/cover, cleaning kit & typing book, $40. 581-6432.

PVC DARKROOM SINK - 72"x27", splash board, print drying racks, cabinet underneath, excel. cond., $250. 732-6822.

EXERCISE BIKE - Sears, $40; metal cabinets, $5 & $10; assorted junk. Janet, Ext. 2345 or 929-8152.

ARC WELDER - 230 amp., helmet, 10 lbs., rods, $99. 289-8601.

## Yard Sale

YAPHANK - multi-family, Aug. 4, 10-4, end of Shannon Blvd., rain date Aug 5.

## Real Estate

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

## For Sale

PATCHOGUE VILLAGE - circa 1880, walk to stores, 4 bdrms., 1-1/2 baths, family room, living room, screened porch, 1-1/2 car garage, $84,990. 475-3238 after 5 p.m.

RIDGE - 3 bdrms., 1 bath, l/r w/coal stove, den, eik, w/w carpet, large beautiful yard, new well, new cesspool, alum. siding, fenced, minutes from Lab. Ext. 3565 or 924-8594.

COOPERSTOWN - 188 acres adjoining state forest, well water plus bldgs., $475 per acre, sell all or half. Ext. 3688.

SAYVILLE - waterfront co-ops, tastefully furnished, 1 bdrm. apts., private deck, parking, pool, excel. for invest. or occup., from $32,000. 585-4741.

CORAM - Birchwood at Bretton Woods, condo, Dalton model, 3 bdrms., den, formal d/r, 1-1/2 baths, gas heat, central air, patio, 1/2 block to clubhouse. 732-6822.

## For Rent

SAYVILLE - 3 bdrm. ranch, l/r, kitchen, laundry rm., no pets. $650/mo. plus utilities and 1 mo. security. 289-0413.

MILLER PLACE - furnished room, private entrance, kitchen privileges. 928-0777 after 5 p.m.

MT. SINAI - waterview, contemporary, 3-4 bdrm., furnished, avail. Sept.-May, $1,250/mo. neg. 331-1306 weekends.

PORT JEFFERSON VILLAGE - 2 bdrm. house, 2 porches, new EIK, all appliances, $1,000. Ext. 4853 after 1 p.m. or 473-4948 after 6 p.m.

SHOREHAM - master bdrm., private bath, lg. closet, kitchen use, garage, laundry, single, non-smoker, avail. Sept., $55/wk. 744-6287 after 7.

MASTIC - 1 bdrm. apt., $400 w/heat, security/refs. 281-7844.

MIDDLE ISLAND - comfortable residence on secluded 4 acres, w/private pond, 3 bdrms., 1-1/2 baths, w/d, dishwasher, f/p, furnished, 5 min. from Lab, $800/mo., avail. Sept. 1. 924-7480 after 6.

S. JAMESPORT - cozy house in country setting, 3 bdrms., l/r, kit., d/r, utility rm., walk to beach, 20 mi. from lab., avail. Sept. 1, $400/mo. + util., (no pets). Walt, Ext. 2907 or 698-0576 eves.

MORICHES - 3 bdrm. ranch, 2 bath, eik, 2 car garage, extras, avail. Oct. 1, $975/mo. 878-0693 eves.

CORAM - Northisles, studio, $425/mo, w/heat, 2 mo. security, clubhouse, swimming. Bob, Ext. 3306 or 744-6506.

## Wanted

HANDYMAN - to cut lawn in Shirley and do odd jobs. 473-6432.

FOLDING TABLES - steel or aluminum, reasonable. Whitey, Ext. 2913.

DEHUMIDIFIER - for the basement. Ext. 5379 or 586-3797 after 6 p.m.

HOUSEMATE - share 4 bdrms., 3 baths, 20 min. from Lab, wash/dry, dishwasher, sundeck, $233/mo. + 1/3 util. Ext. 2521 or 928-8379.

RUBIK'S REVENGE - I need center pieces or broken cube for parts. Skelly Frei, Ext. 4417.

SUZUKI - RS175 79-81 motorcross bike for parts, reasonable; service manual for 77 Mercury Cougar. John, Ext. 3292 or 286-1348.

SMALL APARTMENT - or efficiency, walking distance to grocery, quiet neighborhood, vicinity Port Jeff. Bernie, Ext. 4842.

ALTO SAX - for beginner. 281-8778.

BABYSITTER - loving responsible person to care for 2 children, 7 & 11 yrs., in our home in Bellport while parents in Europe, latter Sept. Ext. 4771 or 286-8747.

HOLIDAY HOME - for couple, 2 weeks from 8 Sept. to 22 Sept., preferably close to Atlantic and w/kitchenette. Marc, Ext. 5186 or Ext. 2520 eves.

HOUSE TO SIT - free, responsible, caring, any period, any duration, Aug. 5 to Nov. 1. J. Allentuck, Ext. 2417.

PING PONG TABLE - used, good cond., reasonable. Maurice, Ext. 2345 or 928-6950.

INFORMATION - leading to arrest and conviction of the person who removed a stereo radio/casette player (serial #0920760450) from the MPS trailer on Monday, July 23, $300 reward. Bob Hackenburg, Ext. 4008.

## Free

KITTENS - short hair, domestic, black, black/white; also short hair cat, domestic, gray. 549-2794.

FEMALE SHEPHARD - young, housebroken, good w/kids, calm, loving. 929-3347.

CAT - beautiful, affectionate, black & white, spayed & declawed. Carol, Ext. 2907 or 698-8510 eves.

SLIDING GLASS DOORS - (2), metal, heavy. 399-0537.

## Services

BABYSITTER - reliable, experienced teen avail. nights & weekends. Mary, Ext. 2926 or 281-0268 eves.

CARPET & FLOORING - professionally installed, sales & service, new & old, repairs, restretches, shop at home service. 289-8089.

JEWELRY REPAIR - gold & silver, custom design. Dan, Ext. 2319.

COMPANION/AIDE/SHOPPER - for elderly & children, caring, experienced, mature female grad. student desires position, excel. ref. 369-1844 eves.

VIDEOTAPING - exper. college students will videotape birthday parties, etc. 3-Village/Port Jeff area, reasonable. Dave, 928-6654.

PAINTING - interior/exterior, reasonable rates, BNL refs. John, 924-5012.

ART WORK - by capable art student, graphics, calligraphy, invitations. Ext. 3828 or 751-7250.

LAND CLEARING - using excel. rake on JD 450 track loader, $45/hr. w/operator. Tom, Ext. 4084 or 878-1060.

PIANO LESSONS - classical & jazz theory. Ivan, 473-8150.

HOUSE SITTER - reasonable, Suffolk & Nassau areas. Ext. 3671 or 736-2131 eves.

SHEET ROCKING - & spackling, free estimates. Kevin, 567-6651.

VIOLIN LESSONS - all ages, also Suzuki method. 821-0754.

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