BULLETI RACOXHEI

October 21, 1994

BROOKHAVEN NATIONAL LABORATORY

Breast Cancer on Long Island — BNL Team Joins New Project

Most BNLers live on Long Island, and most Long Islanders are aware of breast cancer as an issue of concern for the region.

Now BNLers should know that the Lab is one of a handful of New York institutions that will be helping to carry out the Long Island Breast Cancer Study Project.

Funded by the National Cancer Institute of the National Institutes of Health, the study project will evaluate the possible contributions of various environmental and occupational factors to the cause of breast cancer.

The director of the Long Island project, Iris Obrams, was at BNL on Tuesday, October 18, to give a Medical Department seminar on "The Environment and Breast Cancer." She also spent the day meeting with Lab people involved in the project.

The BNL effort is headquartered in the Medical Department, under the direction of epidemiologist Jerome Barancik, who is the principal investigator. Caroline Kramer and Henry Thode are coinvestigators, and the group's research intern, Jennifer Summer, is also working on the project.

"In 60 to 70 percent of the women who get breast cancer, the cause is unknown," says Barancik. "These patients do not fit into the typical highrisk profile.'

According to Barancik, family history, age, ethnicity and whether or not a woman has had children are commonly thought to be risk factors for breast cancer. Alcohol, cigarettes and



BNL epidemiologist Jerome Barancik and Iris Obrams, director of the National Cancer Institute's Long Island **Breast Cancer** Study Project.

Photos on this page by Roger Stoutenburgh

estrogen replacement therapy may also play a role.

With its focus on environmental and occupational factors, the Long Island project is unique, according to Barancik. Exposures of concern include: contaminated drinking water, sources of indoor and ambient air pollution, electromagnetic fields, radiation, pesticides and other toxic chemicals, and hazardous and municipal waste. Because of its complexity, the project will take many years to complete.

BNL's main role is to develop a geographic information system (GIS) that will look at various risk factors and integrate the data with locations in space and time. "We will build a tool to identify complex environmental exposures and interactions," says Barancik.

It won't be easy. Cases of cancer diagnosed today may be the result of exposures 10 or 20 years in the past. So it will be important to validate each source of data for time period, measurement method and degree of detail of geographical location.

BNL's primary task will be to incorporate environmental and occupational exposure data into the GIS, including water contaminants, industrial releases, landfill plumes, air quality, meteorology, chemicals, pesticides, asbestos, lead, electromagnetic fields, radiation and many other categories. Also to be included will be data on utilities, roads, terrain features, hazardous waste sites and location of individual residences.

Barancik stresses that each proposal to do research as part of the Long Island project was peer-reviewed through an appropriate process. Review will continue for all participants at every stage of the research.

- Mona S. Rowe

Study Links Cigarette Smoke To Urban Environmental Pollution

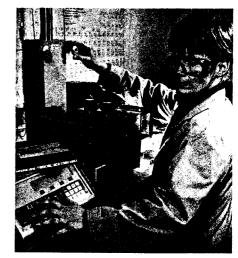
At a time when numerous antismoking regulations are forcing smokers to sneak outside for a few furtive puffs, atmospheric scientists are realizing that cigarette smoke should be

considered a significant source of outdoor environmental pollution in urban areas

Now, a study co-authored by a BNL analytical chemist and scientists at the California Institute of Technology and Oregon State University has found a telltale signal by which to measure how much smokers contribute to smog.

And using that molecular indicator, the researchers have determined that cigarette smoke accounts for 1.0 to 1.3 percent by mass of all the fine particle pollutants in Los Angeles air, or 0.28 to 0.36 micrograms per cubic meter.

Monica Mazurek, Department of Applied Science, was part of a team that published its findings in the July issue of Environmental Science & Technology, after analyzing both the composition of smoke from four popular brands of cigarettes and the fine particle pollutants in the air above L.A.



Monica Mazurek in her analytical chemistry laboratory.

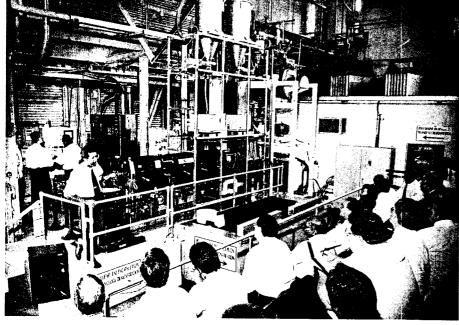
The research was sponsored by the Environmental Protection Agency and the California Air Resources Board.

"Many metropolitan areas, L.A. being a good example, don't comply with the 1990 federal Clean Air Act Amendment, where emissions standards have to be met and where certain priority pollutants must be below

(continued on page 2)

Safely, Economically, Effectively

New Method Encapsulates Waste



Paul Kalb (left, facing audience), leader of the Department of Advanced Technology group that has developed an encapsulation process for sealing radioactive, hazardous and mixed waste in plastic, demonstrated the process at BNL on September 13 & 15. Sponsored by BNL and the U.S. Department of Energy's (DOE) Office of Technology Development, the demonstration drew 85 observers from DOE and industry.

BNL's full-scale demonstration facility at the Environmental and Waste Technology Center is equipped with a production-scale extruder capable of processing 900 kilograms/hour (2,000 pounds/hour). In collaboration with Ames Laboratory and Vectra Technologies, Inc., BNL employed a fully integrated processing system and showed all facets of successful production, including pretreatment, remote waste handling, precise metering, extrusion processing, on-line monitoring and computerized process control.

For this demonstration, simulated aqueous mixed waste, typical of waste generated at the Rocky Flats Plant and other DOE sites, was mixed with plastic and extruded into a 209-liter (55-gallon) drum (shown adjacent to Kalb). The processed waste surrogate was then cooled to a solid, durable waste form that is suitable for disposal. More effective and more economical than traditional cement solidification, the polyethylene encapsulation process is attracting interest from several waste management companies.

Coming Up

Ground Breaking for Pulse Radiolysis Facility

Ground will be broken for the Chemistry Department's new Pulse Radiolysis Facility at the northeast side of Bldg. 555, on Wednesday, October 26, at 4:30 p.m. The facility will form the core of the department's Center for Radiation Chemistry Research. It is based upon a 10-million-electron-volt, radio-frequency photocathode electron gun and represents the first use of this type of gun for the study of the reactions of very reactive species and the investigation of reactions under unusual conditions of pressure and temperature.

BNL employees who have supervisory approval are invited to attend the ground-breaking ceremony.

Conference to Honor Victor Bond

A conference to honor Victor Bond, Medical Department, in his 75th year, will be held at BNL November 3 and 4. Titled "Physical Insult From and Biological Responses to Low-Level Ionizing Radiation," the meeting will feature speakers from Brookhaven and other institutions in Europe and the U.S.

A fee of \$75 has been set for participants taking part in the dinner on November 3, two luncheons and twice-daily coffee breaks. For those attending the dinner only, the fee is \$35. Either fee must be paid by November 1. For more information or to register, contact Amalia Ruggiero, Ext. 2837, or call Ext. 3564 or Ext. 3362.

Record-Breaking Year for Museum Programs

Shortly after the last Summer Sunday BNL tour ended on August 28, Museum Programs head Janet Tempel realized that another record had been set: In this fiscal year, 33,800 people participated in the museum programs offered by the Public Affairs Office — over 10,000 more than took part in fiscal year 1993.

Why did BNL's popularity with the public increase by almost 50 percent, and how did the Museum Programs staff deal with this increase?

Said Tempel, "When 2,500 people arrived on one of the Summer Sundays, the museum staff did what they always do . . . rose to the occasion and switched gears — high gears! That particular day's attendance was the result of a two-page *Newsday* story, and we will continue to see a rise in school visits because of that article. The BNL Science Museum is becoming more popular because we offer quality science programs for children, and we have shared our expertise with teachers and museum professionals through seminars and workshops."

BNL's museum programs are geared to people of all ages. Programs

Cigarette Smoke (cont'd)

defined atmospheric concentrations, especially particular compounds that contribute to ozone [smog] formation and particulates," Mazurek explained.

"There are some sources, called fugitive sources, and cigarette smoke is one of them, whose emissions may only amount to one percent," she continued. "But even though they are minor individual emission sources, when added together many fugitive sources could make a big difference in local governments' attaining compliance."

For the smoke analysis, the researchers used a vertical tunnel to collect smoke exhaled by people puffing on Camel, Merit, Winston and Benson & Hedges cigarettes. Then, they employed gas chromatography and mass spectrometry in a protocol designed by Mazurek to determine the chemical composition of the smoke's fine particles.

The resulting tally of several hundred compounds included such familiar substances as nicotine, as well as exotic-sounding chemicals like phytosterols, pyrrolidines, and isoalkanes. It is the latter branched-alkane compounds, and their cousins the anteisoalkanes, that the scientists eventually chose as a suitable class of tracers for cigarette particulates in the atmosphere.

While nicotine is a familiar and

for the schools start with kindergartners, who can participate in Discovery Tours (5,780 participants grades K-3), in which students come to the

Special Tour On Sunday

If you missed BNL's summer Sunday tours and would like to learn more about the Lab, you've got another chance this Sunday, October 23, when BNL offers free, two-hour guided tours as part of Fall Festival '94, sponsored by the Long Island Convention and Visitors Bureau. The tours will begin at 15-minute intervals, from 10 a.m. to 1 p.m.

In addition, BNL will take part in the Fall Festival '94 Expo/Tech, a high-technology showcase at the State University of New York at Stony Brook today, from 2 to 5 p.m., and tomorrow, from 10 a.m. to 5 p.m. Expo/Tech is free and open to the public.

characteristic ingredient in tobacco smoke, it breaks down rapidly in air and would make a poor atmospheric tracer. Other chemicals typically found in cigarette smoke make for good tracers in indoor air, but sunlight causes them to degrade. Iso- and anteisoalkanes, on the other hand, are stable products, volatilized from the waxy surfaces of the tobacco leaves as they burn.

However, many other plants also have iso- and ante-isoalkanes in their waxes — so the researchers had to do a bit of detective work to make sure that the pollution contribution from other burning vegetation wouldn't be mistaken for that from cigarettes. Drawing from previous surveys of cultivated and native plants from southern California, they were able to determine that tobacco leaves contain, and therefore give off when burned, a characteristic profile of many related iso- and ante-isoalkanes that differed from any other vegetation in the area.

The team also made sure that no other pollution sources, including gasoline- and diesel-powered engines, cooking meat, and even the exoskeletons of insects, gave off iso- and anteisoalkanes in significant amounts.

Knowing all this, the researchers looked for iso- and anteisoalkanes in Los Angeles ambient air samples taken in 1982. They compared their measurements with computations of ex-

Lab's Science Museum to experiment hands-on with mirrors, magnets, magnifiers and microscopes; Discoveries to Go (742 children grades K-3), an outreach program which brings the excitement of discovery into the local library; and the annual Elementary School Science Fair (720 entries grades K-6 and 780 visitors), where winners of Suffolk County schools' science fairs compete for more recognition (funded by BNL's Office of Educational Programs).

Other school programs include: student tours of BNL (6,088 students grades 4-12); Magnets to Go (6,681 fifth graders), which brings magnetic moments to the classroom; Science Museum tours for college groups (502) and special interest groups (532); other BNL tours for college students and others (1,400); and the annual Model Bridge Contest, where budding engineers see how well their basswood bridges hold up under stress (304 high school students and 211 visitors).

In addition, Museum Programs hosted 640 teachers and museum professionals in various seminars, while 9,420 visitors came for the Summer Sunday tours.

pected cigarette emissions based on population and cigarettes sales data.

In addition to designing the analysis protocol, Mazurek helped engineers from Cal Tech design air-sampling devices and other equipment that would not confound the results. For example, plastics and greases that engineers might routinely use may also give off compounds similar to those that the equipment was designed to sample.

The study's results give Los Angeles air-quality managers data about one important fugitive source of smogcausing pollution in their city. But the impact stretches beyond California, giving environmental scientists a "smoke signal" they can look for in the air above other urban areas in ongoing efforts to inventory the content of the nation's polluted air. —Kara Villamil

In Memoriam

Robert Goodrich, a chemistry associate in the Department of Applied

Science (DAS), passed away on October 11 after a cardiac arrest. He was 64 years old.

Goodrich first came to BNL in 1964 as a temporary employee and chemistry associate IV, after earning a bachelor's degree in chemistry



and math in 1952 from West Virginia Wesleyan College, and a master's in chemistry from Oklahoma State University in 1955. On June 27, 1966, he became a permanent BNL employee and chemistry associate II, in what was then the Nuclear Engineering Department.

Since 1974, when he became a chemistry associate I, Goodrich worked in a DAS Environmental Chemistry group headed by Russell Dietz, known as the Tracer Technology Center. There, he aided in long-range atmospheric transport tracer work, including the 1983 Captex project, the 1992 Environmental Protection Agency project MOHAVE, and the ongoing European ETEX project. Additionally, he worked on an EPRI/Con Edison utility project to pinpoint electric cable leaks below New York City streets.

"From early on, he helped work on building instrumentation for this work," Dietz said. "He could do the chemical part and was also good at designing some electronics. In the later years, he handled the computer calculations on projects."

Aside from his professional talent, Dietz continued, Goodrich "was a warm and loving gentleman; a colleague and a very good friend to all of us, and someone that I'm going to miss an awful lot."

A resident of West Islip, Goodrich is survived by his wife, Carol, seven children, and 18 grandchildren. Donations in his name may be sent to Gideons International, P.O. Box 8060, Hicksville, NY 11802.

Getting Spooky for a Good Cause

Trick-or-treat time is almost on the doorstep, and people's thoughts are beginning to turn to bats, cats and spooks. But Antoinette Fridae, Department of Applied Science (DAS), is already deep in the Halloween spirit—as one of the organizers of the "Spooky Walks" held in aid of Camp Paquatuck, Long Island's special camp for handicapped children.

Spooky Walks take participants on heart-stopping strolls where they may stumble into Frankenstein, a mummy's tomb—or a pirate ship captained by Fridae.

"We set up a fire and a cannon that shoots blanks," says Fridae, who has participated in every Spooky Walk since the Moriches Paquatuck Squaws group started them five years ago. "One year, we had people walking the plank. We improvise a lot."

After 26 years at the Lab, Fridae is now DAS's Deputy Department Administrative Manager, working mainly with the department's budget. "In comparison, our fund-raising efforts are very small," she admits. "But the \$70,000 we make each year from the Spooky Walk and other activities is very important to the camp, which runs entirely on private donations. And all the work is worth it when you see the handicapped kids having fun at camp, just like other kids."

Join Fridae for Spooky Walk fun at Camp Paquatuck off Main Street, Cen-



Pirate Ship Captain Antoinette Fridae (left), with another Spooky Walk volunteer.

ter Moriches; free shuttle bus from King Kullen parking lot, 7 to 9 p.m. today and tomorrow, and Friday and Saturday, October 28 & 29. Donations are \$4 for adults, \$3 for under-twelves, As Fridae says, "Every penny goes right to the camp." — Liz Seubert

Cut Medical, Day-Care Costs With Reimbursement Accounts

Although BNL offers comprehensive health plans, not all expenses are covered in full, such as eyeglasses, physical exams, deductibles, coinsurance and expenses above reasonable and customary limits. And, although on-site child care is available at the Lab, the cost of child care, as well as elder care, can quickly add up.

The Health Care and Dependent Day Care Reimbursement Accounts can help to pay for these expenses through salary reduction. Employees can set aside before-tax dollars to pay for out-of-pocket health and dependent day-care expenses, so actual costs are lower because of the tax savings.

Enrollment in these accounts is going on through November 30. Eligible employees — those who work at least 20 hours a week — may set aside from \$300 to \$2,500 in the Health Care Account and/or \$300 to \$5,000 in the Dependent Day Care Account.

All employees who want to sign up for 1995 must complete new forms, even if currently enrolled for 1994. For enrollment forms or more information, contact Personnel Services, Bldg. 185, Ext. 2877. Return forms to Personnel Services by November 30, for coverage effective January 1, 1995.

BNLer Bowled Over by Perfect Game

By the time he had bowled his ninth strike, Ron Mulderig knew he was on his way to another pretty nice game, perhaps heading for a 296 or 298 score like he had had before in his 35 years of league bowling.

Then, with his first tenth-frame ball, he once again knocked down all the pins that stood 60 feet away in the lane at Port Jeff Bowl in Port Jefferson. A crowd began to gather

Mulderig let loose yet another strike. The whole bowling alley fell quiet. He was one strike away from a bowler's dream — the perfect 300.

But instead of blowing his cool, Mulderig joked with his buddies in BNL's Red & Green men's league, jovially asking someone to shoot the last ball for him. In the end, he bowled it himself.

And it was another strike.

With that perfect game on October 11, Mulderig became only the second person in BNL's 47-year bowling history to bowl 300, the other being Michael Iarocci, Sr., in 1968.

"It's comparable to a golfer who gets a hole in one," he said. "I've always had the philosophy that in every

game there's always a lucky strike. But in this one, they were all solid hits."

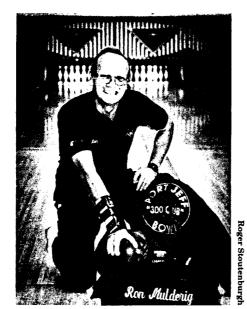
The reaction to his accomplishment was swift and overwhelming. "Women were coming over to hug me, and the lane gave me a jacket that says I'm part of the Port Jeff 300

Club," Mulderig said. He has also become eligible for the lanes' raffle of a trip to Hawaii and has ordered his commemorative ring from the American Bowling Congress.

The pins fell on a Tuesday evening. By Wednesday morning, word of his achievement had spread throughout the Plant Engineering Division, where he is a custodial supervisor. Congratulations and admiring glances at his jacket kept coming all day.

What comes next? Mulderig is aiming for an 800 series, which requires an average of 267 points per game for three games and has been accomplished by only one BNL bowler, Ray Raynis, earlier this year. And, Mulderig added, he anticipates a few more perfect games. "They say the first is the hardest," he said. "After that, they say it gets easier, and I hope that's true."

— Kara Villamil



Ron Mulderig at Port Jeff Bowl, site of his 300 game.

Archers' Tournament

The BNL Archery Club will host a Special Open House Halloween Tournament on Thursday, October 27, at 5 p.m., at the Archery Range. Anyone interested in archery — member or nonmember — should plan to attend.

Bring your appetite as the club is planning a barbeque. For more information, call Bill Schoenig, Ext. 2377.

Amateur Radio Club

The Amateur Radio Club will next meet on Thursday, October 27, at noon in Room D, Berkner Hall.

All Lab employees, guests and licensed amateur-radio operators are invited. For more information, contact Chris Neuberger, Ext. 4160, or Nick Franco, Ext. 5467.

Bluegrass Coming to BNL

The Fox Family Bluegrass will appear in concert on Friday, November 4, at 8 p.m., in Berkner Hall. This will be the fourth time that the four young musicians from the Adirondack Mountains, will appear in concert at BNL.

Tickets cost \$8 each for adults and \$5 each for children under 12, students and senior citizens. Purchase them now at the BERA Sales Office in Berkner Hall between 9 a.m. and 1:30 p.m. daily.

Tickets can also be purchased at the door or in advance from M. Kay Dellimore, Bldg. 185, Ext. 2873; April Donegain, Bldg. 134A, Ext. 2459; Andrea Epple, Bldg. 535A, Ext. 4424; Skelly Frei, Bldg. 750, Ext. 2760; August Hoffmann, Bldg. 510C, Ext. 3884; Elliott Levitt, Bldg. 134, Ext. 2495; Louis Nieves, Bldg. 179B, Ext. 4031; Rosalie Piccione, Bldg. 355, Ext. 3160; Bridget Ramos, Bldg. 197C, Ext. 3452; Ed Sperry IV, Bldg. 902A, Ext. 2697; or Arlene Wolochuk, Bldg. 902C, Ext. 3428.

Holiday Parties: Time to Reserve

Recreation Building

Lab organizations and BERA activ-

BWIS Wine & Cheese

All are invited to the Brookhaven Women in Science (BWIS) Wine & Cheese Party — on Wednesday, October 26, from 4:30 to 6:30 p.m. in the Recreation Building.

This free, informal get-together is held annually to acquaint prospective members — women and men — with BWIS members and officers, and with the group's accomplishments, which have benefited the entire Lab community. So come enjoy a social afternoon and explore what BWIS has to offer.

ity groups interested in reserving the Recreation Building in the apartment area for holiday parties may send a representative to a meeting on Friday, November 4, at 11 a.m., in the conference room of Personnel, Bldg. 185A.

As in past years, reservations will be made in the order determined by a lottery, which will be held for those at the meeting. As long as dates are available, subsequent reservations may be made through Wednesday, November 30, by contacting the Recreation Office, Ext. 2873.

Brookhaven Center

Reservations for parties at the Brookhaven Center may be arranged by calling Christine Ronick, Staff Services, Ext. 3545.

Consume at the P.O.

To educate the local mailing public about the services and products offered by the United States Postal Service (USPS), the Upton Branch of the U.S. Post Office is holding a Postal Consumer Affairs Day, during National Consumer Affairs Week, October 22-29.

On Wednesday, October 26, from 11:30 a.m. to 1:30 p.m., Upton Postmaster Jeanine Fornsel invites all mail-services consumers to an open house at the Upton P.O., Bldg. 179, where light lunch refreshments will be served, and all are invited to learn about what the USPS has to offer. With the holidays coming up, consumers may want to consider some of the many USPS philatelic products available for purchase and gift giving.

Second

Health Street & Safety Fa

— Bigger & Better Than Ever!

The BNL-sponsored Healthfest '94

was a big draw from start to finish: On October 11, the first day of Healthen, 270 people participated in the two-mile Fitness Walk organized by Marilyn Gibbons. And on October 13, the last day, 130 BNLers devoted their lunch periods to the 5-kilometer Fitness Run, organized by John Dabrowski.

The four-day event also drew 100 people to three lectures and continuous crowds to Berkner Hall for the two-day Health, Fitness & Safety Fair featuring 24 exhibitors. During the fair, 180 BNLers underwent blood pressure screening, 60 had a foot screening, 45 had a body fat analysis and 120 took a pulmonary function test. And the following lucky fairgoers won door

Tim Anderson, Don David, Sheila Funes, Phil Harrington, Diane Hutton, Fernando Jaramillo, Edward Lanning, Terrence Monahan, Helen Murray, Gail O'Hern,

Rich Travis, Sonya Santos, Alison

Schwartz and George Wunderlich.
Health Promotion Specialist Mary
Wood, Occupational Medicine Clinic
(OMC), who chaired Healthfur? 94 along
with Don Farnam, Central Shops Division, said, "We want to extend a
heartfelt thank-you to the executive

committee and the planning committee, as well as the many, many volunteers from organizing groups all around the Lab who worked so hard to make Healthfeat '94 an even bigger and better event than it was last year."

In addition to Farnam and Wood, Healthful Planning Committee members were: Marsha Belford, Public Affairs Office; Frank Biele, Safety & Environmental Protection (SEP) Division; John Dabrowski, National Synchrotron Light Source Department; Kay Dellimore, Personnel Division;

Denise DiMeglio, Personnel; Bill Fortunato, SEP; Marilyn Gibbons, Plant Engineering (PE) Division; Skip Medeiros, Director's Office; Christine Ronick, Staff Services Division; Mickey Sacker, OMC; and Patricia Williams, PE.

The Executive Committee included OMC Manager Bryce Breitenstein; Robert D'Angio, Personnel Manager; M. Sue Davis, Associate Director for Reactor, Safety & Security; and Richard Setlow, Associate Director for Life Sciences.

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On October 13, the last of four days of Healthful '94, BNL Director Nicholas Samios (far right) gave

the official start for the 130 BNLers in the 5-kilometer Fitness Run.

Roger Stoutenbu

New Club Welcomes Physics Grad Students

The AGS Users' Group is sponsoring a club for physics graduate students, to feature colloquia as well as social events. Anyone interested should attend an organizational meeting on Tuesday, November 1, at 6:30 p.m. in Physics, Bldg. 510, outside the large conference room, where pizza will be served.

 $Call\,Robin\,Appel, Ext.\,4967, or\,Tom$ Hemmick, 632-8120, for more information.

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, October 24, at 6 p.m., in the Knights of Columbus Hall, Railroad Avenue, Patchogue. On the agenda will be regular business, committee reports and the president's report.

Play Bridge Tuesdays

The BERA Bridge Club invites players to attend its duplicate contractbridge games on the next two Tuesdays, October 25 and November 1, at 7:30 p.m. in the Brookhaven Center. After that, the club will meet every other week, depending on room avail-

For more information, call Morris Strongson, Ext. 4192.

Bowling

Red and Green League

R. Mulderig Sr.— 300! — the Perfect Game/with a 692 scratch series; K. Asselta 256/616 scratch, E. Larsen 237/220/215/ 672 scratch, F. Griswold 236/632 scratch. E. Meier 231, K. Koebel 230, R. Wiseman 226, H. Arnesen 215/202, N. Scala 209, R. Larsen 207, A. Warkentien 206, E. Sperry IV 204, R. Eggert 201, M. Palumbo 200.

Purple/White League

S. DiMauito 221/180, S. Smith 216/184, E. Sperry IV 214/181, T. Farmer 197, J. McCarthy 195, D. Botts 191, J. Meier 189, B. Belligan 187/181, J. Butler 186, N. Fewell 182, L. Farmer 174, G. Riker 170, L. Farmer converted the 7/6/10 split, E. Sperry IV the 4/7/10 split, J. McCarthy the 2/4/10 split.

Arrivals & Departures

David J. Fisk	Biology		
	Off. Env. Rest.		
	Saf. & Env. Prot.		
	Occ. Med. Clinic		
Donantunas			

Departures

This list includes all employees who have terminated from the Lab, including retiree

,, see		
Thomas M. Can	nizzo	Physics
Carol A. Neger		

Apologies to Richard Skelton, who was incorrectly assigned to Medical in the departure list of October 7. He spent the last 16 of his 38 years at BNL in the Alternating Gradient Synchrotron Department.

Cafeteria Menu

Monday, October 24	
Soup: Spicy potato kale	.90/1.20
A la Carte: Arroz con pollo	3.95
Fitness: Pot roast	4.25
Deli: Pastrami	3.20
Grill: Bratwurst & peppers	3.30
Tuesday, October 25	0.00
Soup: Cream of mushroom	.90/1.20
A la Carte: Eggplant Parmesan	3.65
Fitness: Curried chicken	3.95
Deli: Virginia ham	3.20
Grill: Spanish omelet	3.30
Wednesday, October 26	3.30
Soup: Split pea	00/1 00
A la Carte: Tortellini carbonara	.90/1.20
	3.65
Fitness: New England cod	3.95
Deli: Roast beef	3.20
Grill: Monte Cristo	3.30
Thursday, October 27	
Soup: Chicken vegetable	.90/1.20
A la Carte: Chicken lo mein	3.95
Fitness: Stir-fry beef	3.95
Deli: Turkey	3.20
Grill: Cuban sandwich	3.30
Friday, October 28	
Soup: Manhattan clam	.90/1.20
Display cooking: Omelet	2.95
Fitness: Flounder w/julienne veget	ables 4.25
Deli: Corned beef	3.20

3.30

Grill: Fried clams

Classified **Advertisements**

Placement Notices

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

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all

Except when operational needs require otherwise, positions will be open for one week after publication For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

NS 2397. ADMINISTRATIVE POSITION - Requires a bachelor's degree in business administration or equivalent work experience, and a comprehensive knowledge of Laboratory accounting procedures and administrative systems. Substantial background with computer usage in administrative data analysis is required, as is experience in the preparation of budgets and the processing of proposals and contracts Department of Applied Science.

NS 2799. ELECTRICAL SUPERVISOR - Will be responsible for first-line supervision of electricians, and for directing employees on jobs, including assignment, training, scheduling, grievance handling and technical direction. Coordinates all work; maintains records and reports; supplies technical assistance and information as requested. Plant Engineering Division.

Motor Vehicles & Supplies

91 FORD F-150 4x4 PICKUP - 5-spd., 6-cyl., 36k mi., cap, bed liner, v.g. cond., asking \$12,500. 589-2655. 90 MAZDA PROTEGE - 5-spd., ac, 86k mi., orig. owner, excel., \$4,400 neg. Mike, Ext. 4519 or 929-8453

90 T-BIRD SC - turbo, leather, moonroof, all opt., sports gear box & clutch, \$6,000. Ext. 7699 or 821-1435.

90 HYUNDAI - 3-dr. h/b, 50k mi., 4-spd., stereo. telephone, needs nothing, excel. cond., \$3,200. Greg, Ext. 2575 or 399-1258.

90 MITSUBISHI ECLIPSE - silver, ac, 37k mi., od, a/t, am/fm cass., \$7,500 firm. Ken, Ext. 4550/5110. 90 PLYMOUTH VOYAGER - ac, all extras, 83k mi., must see, excel. cond., \$7,500. John, 286-9274

89 MAZDA GLC - 5-spd., am/fm, 130k mi., v.g. cond., \$900. Guryn, Ext. 3878.

89 NISSAN SENTRA - 2-dr., 4-spd., ac, am/fm cass., 96k mi., new tires, excel. cond., asking \$2,500. Mike, 821-4083 after 5 p.m.

89 OLDS CUTLASS CIERA - 4-dr., loaded, 94k hgwy. mi., excel. cond., \$4,300. Ext. 4238 or 286-3509. 89 T-BIRD - silver, p/s, p/b, ac, stereo, cruise, p/w,

p/seats, \$4,500, 399-1868. 88 CHEVY CAVALIER - blue, a/t. ac, p/b, cass., asking \$2,500, neg. Mary, Ext. 2815 or 981-7715.

88 FORD FESTIVA - am/fm stereo, 54k mi., v.g. cond., \$1,700. Peter, Ext. 4940/1029.

88 OLDS FIRENZA - a/t, full power, cruise, ac, 4-dr., 88k mi., excel. cond., asking \$2,800. Jack, Ext. 7942. 88 PONTIAC SUNBIRD - 4-dr., a/t, p/s, p/b, ac, aux. lights, 66k mi., clean, ask. \$5,000. Hankes, 941-4011.

88 TOYOTA TERCEL DLX - coupe, red, a/t, ac, stereo, cruise, 82k mi., clean, orig. owner. Sy Holtzman, Ext. 4992

87 CHEVROLET MONTE CARLO - 108k mi., clean, \$1,500. Lore, Ext. 5125.

87 FIERO GT - showroom cond., 35k mi., red, gar., asking \$7,000 firm. John, Ext. 7340.

87 MAZDA 626 LX - 4-dr. sedan, a/t, ac, p/s, p/b, p/w, am/fm cass. stereo, cruise, air bag, 100k mi.,

\$3,000 neg. Joe, Ext. 7496 or 924-7823. 87 SUBARU XT - burgundy, 5-spd., new p/s, pump, valve cover gasket, timing belt, new brakes, muffler,

excel. cond., must see, \$1,300. Steve, Ext. 4417. 86 MAZDA 323 - 4-dr. sedan, 4-cyl., a/t, ac, alarm,

needs trans. work, good cond., \$900. Jim, Ext. 5537. 85 HONDA ACCORD LX - 4-dr. sedan, white, 118k mi., a/t, ac, p/s, p/b, p/w, p/l, am/fm cass., EQ stereo, some

body damage, \$800. George, Ext. 3061 or 751-0265 eves. 85 HONDA CIVIC DX - 3-dr. h/b, 5-spd., ac, am/fm, 130k hgwy. mi, runs well, ask. \$1,399. Jun Wu, Ext. 5719.

85 YAMAHA BW ATV - 200cc, 2-wheel, v.g. cond., \$800; '88 Yamaha Razz, needs fuel pump diaphram, \$200. Dan, Ext. 4220 or 698-7322.

84DODGEWINDOWVAN250-318 eng., p/s, p/b, ac, tow pkg., good cond., \$2,150. Charlie Edwards, Ext 2238.

83 VOLVO WAGON - turbo 5-spc., gray, leather seats, excel. cond., \$2,500. Dejan, Ext. 3078. 81 CADILLAC COUPE DE VILLE - 89k mi., good

cond., must sell, \$1,200. Bruno, Ext. 1373. 81 FORD GRANADA - 6-cyl., white/silver, runs well, \$700. Ext. 2816 or 878-0480.

79 MALIBU - V-8, a/t, high mi., runs well, reliable transportation, \$600. Blayme, 369-3723.

69 CHEVY C-60 DUMP TRUCK - '85 trailer; '79 John Deere bulldozer, 350-C, loader, all good cond., 325-0447 after 6 p.m.

66 FORD MUSTANG - whole or parts. Tracy, Ext. 5864, 8 a.m.-noon.

65 BMW R/50/2 MOTORCYCLE - mint, \$4,500 or trade for Harley. 467-1343.

CAP - for Ford Ranger pickup, 7' bed, \$175. Steve, 744-4974.

NOSE BRA - '87-90 Toyota Camry, used once, \$25. Vinnie, Ext. 5005 or 821-6499.

CAR RADIO - 2 mos. old, am/fm cass. tape player, two 6"x9" speakers, \$60 new, \$40 now; trailer hitch, \$20. Don, Ext. 7237 or 744-2921 after 5:30 p.m.

TIRES - Classic 78 II, P195/75B14, plus rims, new, \$85. 878-1617.

TIRES - 2, P235/75R15, good cond., \$25 ea.; donut spare, new, T125/80016, make offer. Sue, Ext. 7235 or 395-3529.

Boats & Marine Supplies

30' BAYLINER BUCCANEER SAILBOAT - 1979, ib diesel, furling jib, cradle, v.g. cond., Ext. 7699 or 821-1435.

25' AQUASPORT - 1987 200-h.p. Merc., 9.5 Yamaha Kicker, new batt., Loran, radio, full canvas, excel. cond., \$13,000 neg. 878-0480.

211/2' PURSUIT - 1991, Deep V cuddy, 150-h.p. Yamaha, 140 hrs. o/b, loaded, '93 E-Z trailer, full canvas, mint cond., asking \$18,000. Lloyd, 587-7876.

19' CRUISER - fg, 115-h.p. Johnson, nearly new trailer, p/winch, \$2,200. Jim, Ext. 3372 or 821-0250. 18' CHRYSLER BUCCANEER SAILBOAT - fg, main, jib, spars, rigging \$300. Terry, 473-8426.

17' GRUMMAN CANOE - sail, mast, rudder, outboards, paddles, etc., \$495. Jack, 744-3919.

BOAT TRAILER - 28', alum. w/custom slide table, 6,800 lb. capacity, brakes on all wheels, extras, mint cond., \$5,500. Kelly, 864-9290.

WINDSURFER - HiFly beginner's board w/complete rig, good cond., \$200 firm. Bill, Ext. 5320.

Furnishings & Appliances

BED - twin/youth, wood hdbrd. & ftbrd., rails, foundation, mattress, \$85; elec. cooktop, 4-burner, GE, extra burner coils, \$50. Ext. 5080 or 751-1884.

BEDROOM SET - queen size, dresser, chest, mirror, hdbrd., suburban country oak, brand-new mattress & boxspring, \$675. Lou, Ext. 7772 or 736-5238.

BEDROOM SET - girl's, 9-piece, white French Prov., \$200. Judy, Ext. 2073 or 744-8032 after 5 p.m.

CHINA CLOSET - w/table, dark wood, \$400; Grundig stereo, 1950s, antique, works, \$150. Ext. 2089.

COUCH - \$450; love seat, \$350; chair, \$250; all Italian leather, beige, 5 yrs. old, \$950/all. Laszlo, 689-5374. COUCH - & love seat, brown & gold, oak trim, coffee table, & 2 end tables, oak, neg. Arup, 744-6962

CRIB - Child Craft, Chesapeake oak, w/mattress, excel. cond., \$150. 929-3235.

DESK - solid pine, 50"x32"x301/2"H, 4 drawers, 1 file drawer, v.g. cond., \$80 neg. Ext. 2683.

DINING ROOM - 1920s, 9-piece, table, 6 chairs, buffet, china cabinet, \$250/all. 363-9527.

DINING ROOM - Broyhill, china cabinet, buffet, lg table, 3 leaves, 6 chairs, fair cond., asking \$450. Lloyd, 422-5881.

DINING ROOM - table, buffet, 4 chairs, dark wood, \$100 or best offer. Ralph, Ext. 4275 or 821-5903.

DINING ROOM - Lane, china closet, buffet, table, 2 leaves, 6 chairs, solid walnut, \$500. Lore, Ext. 5125. DINING ROOM - white Formica table w/drop-in leaf, 6 swivel armchairs, \$100. Don, Ext. 7237 or 744-2921 after 5:30 p.m.

FREEZER - Gibson, upright, reasonable. 363-7032. HUTCH - v.g. cond., asking \$50. 878-1617.

KITCHEN TABLE - 36"x48", w/two 12" leaves, chairs, \$90. Jack, 744-3919.

LOVE SEATS - 2, oak trim, 1 end table, all good cond., must sell, \$225. 368-6115.

RANGE - Tappan, elec., self-cleaning, v.g. cond., \$60. I. Polk, Ext. 7946.

TABLE - maple butcher block, center pedestal, round, 11/2" top, needs refinishing, 4 chairs, need regluing, \$50/all. Plotkin, 798-2887

TABLE - 31/2'x61/2', white Formica top, black legs, \$20. John, Ext. 2667.

Tools, House & Garden

BATHTUB ENCLOSURE - frame & doors, complete, \$30 or best offer. Lee, Ext. 4663.

CARPET SWEEPER - Bissel, \$3. Joe, Ext. 2898.

CEILING FAN - w/4 spotlights, rose color, like new. \$20; central vacuum system, works, best offer. Frances, Ext. 4382.

CHIPPER/SHREDDER - Sears, gas, 5-h.p., never used, orig. \$500, now \$250. Ken, Ext. 5454 or 928-1254.

FIREWOOD - be prepared, best offer. 744-5801.

HEATER - kerosene, 55,000 Btu, asking \$150; workbench, 64"x28", wood top, \$50; power valve grinding set, w/guide & stone set, \$200. Dave, 878-1303.

HEATER - electric radiator, v.g. cond., orig. \$54, sell for \$30. Helga, Ext. 2384.

HOT WATER HEATER - 80. yrs. old, like new, \$200. Noy, Ext. 2672.

LAWN MOWER - Master Cut, elec., 3-h.p., 20" cut, new parts & blade, grass catcher; Bradley gas grill, \$50/ea. Carol, 929-3209.

LAWN MOWER - Snapper, 21" cut, 2 yrs. old, excel. cond., \$175 firm. Dan, Ext. 4220 or 698-7322.

LAWN TRACTOR - Craftsman, 38", riding, elec. start, grass catcher, 42" snow blade, chains, new battery, extra blades. Harve, Ext. 4689.

POOL FILTER - sand, 7-gallon tank, s/s pump, valve hoses, \$50. Fred, Ext. 5032.

SHELVING - steel, 12"x36", 12"x48", industrial, good cond. Kelly, 864-9290.

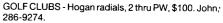
STOVE - coal, Surdiac, good cond., \$200. Carol, Ext. 3927 or 331-8785.

Sports, Hobbies & Pets

BICYCLE - Huffy, 26", girl's, 10-spd., pink & gray, great cond., \$50. Fred, Ext. 5032 or 744-2655. DRUMS - twin tams, excel., reasonable, 363-7032. EXERCYCLE - coffee table, 2 end tables, new linens,

2 wooden benches, movie projector, table. 286-0376. EXERCYCLE - like new, \$40 neg. Plotkin, 798-2887.

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GYM EQUIPMENT - bench w/pull-down bar, \$350; butterfly machine, \$350; rowing machine, \$75; stair

stepper, \$100. Kelly, 864-9290. PIANO - Baldwin Acrosonic Spinet, tuned, excel. cond., \$1,000; Lowry organ, model D325, excel. cond.,

\$1,800. Kathy, 878-2686. SKI MACHINE - Nordic Track Ski Pro, w/computer,

like new, asking \$425. Jeanine, 878-0784. SKI BOOTS - Nordica NR980, men's, size 91/2-10,

used once, \$70. Georgia, Ext. 7957. SKIS - Olin, 180cm, w/Salomon 444 bindings, run-

away straps, great for beginner, \$20 neg. Don, Ext. 7237 or 744-2921 after 5:30 p.m. SKIS - Orin Mark III, 185, \$25; Olin 140, \$50; Atomic

140 w/Tyrolia bindings, \$80. John, Ext. 2667.

SKIS - Spalding Formidable 180, excel. cond., asking \$80. 878-1617.

SNOW MOBILE - 1994 Arctic Cat, 580cc, mint cond., extras, \$4,800. Kelly, 864-9290.

Audio, Video & Computer

KEYBOARD - Casio CT-607, full-size keys, foot pedal, power supply, \$100. Carol, Ext. 3927 or 331-8785. MONITOR - SVGA, 14", 0.39 dot pitch, Sirex, like new, \$175; CPU, w/Intel 486 DX-33, \$175; SVGA card,

Trident, 8900C, w/256K, \$50, all new. Ext. 2683. MOVIE TAPES - original, hundreds to choose from, \$1-\$2/ea. Ext. 7496.

PRINTER - Panasonic 2180, 9-pin dot matrix, w/black & color ribbons. 1 yr. old, \$100 neg. Tony, Ext. 3194. TV - 19", good picture, no remote, \$20; VCR, 4-head,

needs work, \$30. Yan, Ext. 2251 or 924-1564. TV - Motorola, color, works fine, \$75; Panasonic VCR. asking \$50, both for \$110. Dave, 878-1303.

VIDEOTAPE - Sound of Music, new, still in box, \$10. Ext. 7139 or 696-4828.

Miscellaneous

AIRLINETICKET - Islip to Miami, return valid until April 10, 1995, \$290. Hasna, Ext. 7028 or 929-3887.

CHINA - made in Czechoslovakia, service for 12, all serving pieces, excel. cond., \$700. 265-3208.

TICKETS - Radio City, Theatre III, limo service, restaurants, all 20% off. Tom, 736-6691

CAT - found at bus stop, black female. Mark, 744-2655. DRYER - elec., auto shutoff, recent belt replacement. Jay, Ext. 4994

GOLDEN RETRIEVER - purebred male, 18 mo.-old, excel. disposition, great family dog, needs good home. 369-3307, leave message.

PIANO - needs work, 3'x1.5'x4.5', you pick up. 473-8060. WINDOWS - 4 sets, double hung, w/storm & screens, you pick up. Lou, Ext. 7313.

Yard & Garage Sales

RIDGE - Sat. 10/22, 10 a.m.-5 p.m., toys, tools, tires, small appl., baby items, shades, knickknacks, 30 Panamoka Trail.

SHIRLEY - Sat. 10/22-23, 10 a.m.-3 p.m., furniture, kerosene heaters, clothing, tools, appl., books, bricabrac, sink/stove/refrig. combo, 71 Margin Dr. W.

SHOREHAM - 10/23-24, baby & children's items, attic cleaned out, much more, Woodville to Valley Way to 8 Lower Cross Rd.

YAPHANK - Sat. 10/22, 10 a.m.-4 p.m., multifamily, Main St. between Mill Rd. & Yaphank-Middle Is. Rd. YAPHANK - Sat. 10/22, 9 a.m -4 p.m., multifamily, Mill Rd., street opposite motel

Lost & Found

FOUND - gold earring, doubled looped. Personnel, Ext. 2873.

LIE EXIT 43 - 4th driver needed. Elliott, Ext. 2495. HUNTINGTON - 4th driver needed. Jim, Ext. 7513.

ANTIQUES - paintings, furn, rugs, cash. Ron, Ext. 5371. BENCH SEAT - to be installed in full-size van, must be in good cond. & removable. Don, Ext. 7237 or 744-

2921 after 5:30 p.m. BOOKCASE - wood, open-shelf cabinet, 4-5' high, but not more than 28" wide; ladder, folding 'A' type, 10' high. John, Ext. 7671.

BRIDGE PLAYERS - for on-site game, call for details. Morris Stronason, Ext. 4192 or 924-6274 eves CANOE - Kevlar, Mad River Malacite or Travler. Bill,

Ext. 5320. CARS - trucks, motorcycles, guitars & aquariums.

467-1343 CLOTHES DRYER - electric; 2 kitchen chairs. Sonja,

929-0906 ENCYCLOPEDIA - World Book only, reasonable. Ken,

Ext. 7915 or 929-0823 ENGINE - Pontiac big block, 455 pref., will consider other sizes, must be in good running cond. Philip, Ext.

2950 or 369-9610. FLUTE - Don. Ext. 5329 or 898-2215.

MINERALS - collections, books, any language, preferably old editions. Plotkin, 798-2887.

OUTBOARD MOTOR - 7-12 h.p., long shaft w/battery charger output, need for 23' sailboat. George, Ext. 3061 or 751-0265 eves.

RIDE - to/from Wildwood area of Wading River to BNL for next month. Pat, Ext. 7635.

SLIDE RULES - and related material. George, Ext. 4584 after 6 p.m. TRAILER - for 17' boat, reasonable. Marty, Ext. 3749.

TRUMPET - student's, cheap. Chris, Ext. 2492. UNIMAT - need information on contacting represen-

tative to get parts and instructions. Ralph, Ext. 2180. In Appreciation

To my many friends and customers — you have been a special part of my life. "Thanks for the Memories. - Carol Neger, Cashier

For your support and kind words during our time of grief, my family and I are grateful.