

Major Air Pollution Study Launched

Six aircraft, 60 ground stations, three DOE labs Among 40 participating institutions

In mid-August, a national team of more than 200 researchers began one of the most comprehensive air-quality studies ever conducted in the U.S. Over six weeks, scientists at three DOE laboratories, in collaboration with researchers from more than 40 public, private, and academic institutions, have been studying air pollution in the Houston region and the eastern half of Texas.

Their aim is to get a better understanding of the complex interactions among various sources of pollution, meteorology, and other variables that contribute to ozone and fine-

The goal is to identify cost-effective, efficient ways to control pollutants in order to protect public health and the environment.

particle air pollution. The ultimate goal is to identify cost-effective, efficient ways to control these pollutants in order to protect public health and the environment.

"If you understand a lot about the sources of pollution and the processes that are involved, you can make intelligent decisions about how to deal with the problem," says Peter Daum of BNL's Environmental Sciences & Technology (ES&T) Department, one of the lead investigators on the study. Other BNL team members are: Fred Brechtel, Dan Imre, Larry Kleinman, Y-N Lee, Linda Nunnermacker, Stephen Springston, and Alla Zeleznuk, all of ES&T, and Judy Lloyd and Barbara Hillery, collaborators from the State University of New York at Old Westbury.

This team played a large role in setting the scientific agenda of the study and designing the network of pollutant-sampling devices. For instance, Imre has developed an instrument that is capable of looking at single aerosol particles — big contributors to haze and smog.

"We usually use filters to look at these particles in bulk," says Daum. "Single particle

analysis will help us understand in much greater detail where those particles come from and how they are made."

It's a plane, it's a skyscraper!

During the Texas 2000 Air Quality Study, six research aircraft, including the DOE Grumman Gulfstream 1, are making daily sampling flights: some at fixed altitude approximately 2,500 feet above the ground, and some ranging from 300 feet to 10,000 feet to study the vertical distribution of pollutants and their precursors.

Daum has flown on hundreds of such flights in previous studies. "The worst kind of flying we do is where you fly low in the atmosphere near the ground where, in the summertime, you have a lot of heating," he says. "That causes turbulence. Lots of people get sick under those circumstances. I've gotten queasy, but I've always kept my lunch down."

In addition to the planes, 60 ground-based air-quality and meteorological monitoring stations — including one at the top of a Houston skyscraper — will take readings of ozone, sulfur dioxide, carbon monoxide, nitrogen oxides, fine particles, and precursor chemicals. The scientists will combine these data to study how the chemicals mix, move, and react in the atmosphere under a variety of meteorological conditions.

Ozone alert

Ozone, one of the pollutants under study, is formed from reactions between nitrogen oxides and hydrocarbons — such as those emitted from

hydrocarbon emissions have improved air quality in many areas over the past 30 years, "There are still large areas of the country that are out of compliance with national ozone standards."

A more detailed understanding of all the variables that contribute to ozone and fine-particle pollution could lead to more effective control measures to improve air qual-

"There are still large areas of the country that are out of compliance with national ozone standards."

ity in the Houston region and the rest of southeastern Texas. The fundamental scientific knowledge gained could be applied to similar problems in other areas of the country.

Hot fun in the summertime

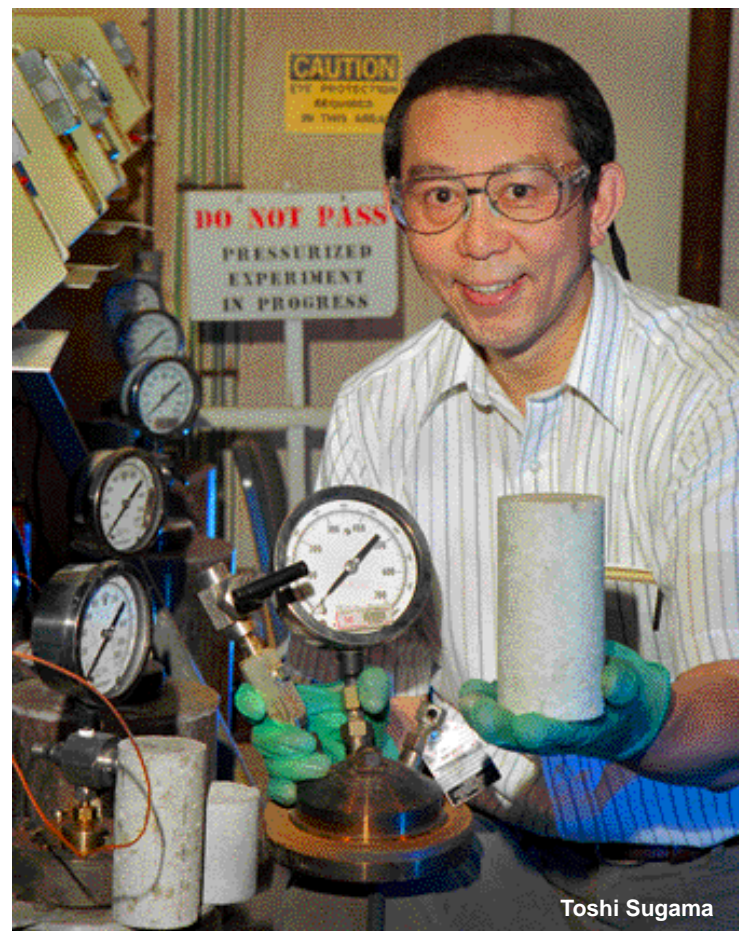
August and September, the period of the study, are the months when Houston and the rest of southeastern Texas experience the worst air-quality problems due to the presence of hot, stagnant air. "This year has been particularly brutal," Daum says, with temperatures hitting the 90s or above for over 15 days straight.

The southeastern region of Texas was chosen as the study site in part because of the severity of the pollution problem there and also because the region's unique chemical and meteorological features present interesting scientific questions. These questions need to be addressed not only to improve the ability to assess the effects of emissions on air quality, but also to make sound decisions if and when emission controls become necessary.

The scientists expect to be analyzing the data for several years, with some preliminary results being reported in 2001.

In addition to BNL scientists, researchers from DOE's Argonne National Laboratory in Illinois and Pacific Northwest National Laboratory in

(continued on page 2)



Roger Stoulenburgh CNZ-200

Toshi Sugama

High-Tech Cement Wins R&D 100 Award For BNL, Partners

Sugama First BNLER to Win Three R&D 100 Awards

BNL, in collaboration with Halliburton Company and Unocal Corporation, has won a 2000 R&D 100 Award for developing a high-performance cement. Known as ThermaLock cement, the product is particularly suited for use in geothermal wells. It can also be applied in oil and gas wells and used for soil remediation.

R&D 100 Awards are given annually by R&D Magazine to the top 100 technological achievements of the year. Typically, these are innovations that transform basic science into useful products.

The sole BNL researcher to develop the high-performance cement, Chemist Toshi Sugama of the Energy Sciences & Technology Department, will receive the award in a ceremony at the Museum of Science and Industry in Chicago on September 27. Sugama is a

year and in 1988. In 1999, as a member of the BNL research team, Sugama worked with W.R. Grace to develop and test an asbestos-digesting foam known as DMA®. In 1988,

ThermaLock cement is also 'green' or environmentally friendly — made mostly of recycled fly ash, with no harsh chemicals used.

Sugama won the award with former Department of Applied Science researchers Lawrence Kukachka and Neal Carciello for developing an economical zinc-phosphate coating system that reduces corrosion of steel surfaces.

This year's BNL award was one of 20 won by DOE labs. Secretary of Energy Bill Richardson commented, "This year's R&D 100 awards recognize the Department of Energy's continued contribution to our nation's economic prosperity and well-being. Energy Department laboratories are a wellspring of innovation, and I congratulate the researchers on their success."

In initial tests, the innovative research that produced the new cement has already proved its worth to the geothermal industry. About 2 percent of the world's electricity is derived from geothermal

(continued on page 3)



Peter Daum, Environmental Sciences & Technology Department, is seen with DOE's BNL-outfitted research aircraft, Gulfstream-1.

power plants and automobiles — in the presence of sunlight. The traditional approach to controlling this pollutant has been to limit emissions of hydrocarbons.

Daum points out, however, that despite the fact that lower

Calendar of Recreational Events

- The BERA Sales Office is open on weekdays, 9 a.m.-3 p.m., Berkner Hall. For BERA events, call Andrea Dehler, Ext. 3347, M. Kay Dellimore, Ext. 2873.
- Hospitality Committee events are also posted at the Lollipop House and the Laundry Room, located, like the Recreation Bldg., in the apartment area.
- Asterisked (*) events are more fully covered elsewhere in the Bulletin.

Every Tuesday

Welcome Coffee

10 to 11:30 a.m.
Recreation Bldg. lounge

Every Tuesday & Thursday

*Aerobic Dance

5:15 p.m., Recreation Building
\$4 per class or
\$35 for any 10 classes
For more information contact
Pat Flood, Ext. 7886, or Susan Montelone, Ext. 7235.

Every Mon., Tues., & Thurs.

Cardio Kickboxing

Day Classes
Mondays and Thursdays
noon to 1 p.m.
North Ballroom
Brookhaven Center
Evening Classes
Tuesdays and Thursdays
5:15 to 6:15 p.m.
Tuesday class will be held in the Gym - Thursday classes will be held in the Brookhaven Center North Room.
For more information contact Mary Wood, Ext. 5923, wood2@bnl.gov.

— THIS WEEK —

Friday, 9/22

Watercolor Demonstration

12 - 1 p.m.
Berkner Hall Lobby
Artist Helen Giaquinto

Friday and Saturday
9/22 & 9/23

Art Exhibit

Friday: 5 - 7:30 p.m.
Saturday: noon - 4 p.m.
Brookhaven Center North Room
Refreshments, music.

Saturday, 9/23

Wine Tour & Tasting Bus Trip

Cancelled - not enough participants.

Sunday, 9/24

7th Annual Walk for Beauty

The Lab community is invited to join the BNL team that will participate in the 7th Annual Walk for Beauty, starting from the Stony Brook Post Office. The proceeds will benefit breast cancer research.

— WEEK OF 9/25 —

Monday 9/25

Weight Room Closed

The weight room in the gym will be closed until further notice for major renovations.

Wednesday, 9/27

Verizon Wireless Demo

11 a.m. to 2 p.m.
Berkner Hall Lobby
Verizon Wireless will present a wide variety of their products including web-access, mobile phones, and special plans for Lab employees.

*BSA Noon Recital

noon, Berkner Hall
Violinist Thomas Bowes and his wife, pianist Elanor Alberg perform Baroque, Classical, and Romantic masterpieces.

Marty Van Lith's Environmental Involvement Wins Community Recognition

Earlier this month, the community members of the Carmans River Coalition (CRC) celebrated the fact that, with funds contributed by four government entities — Brookhaven Town, Suffolk County, New York State and the federal government — an 18-acre parcel of land in Shirley has been saved from development and will become part of the Wertheim Refuge.

The land, which is adjacent to the Carmans River and the Refuge, had been slated for development by Home Depot.

This success culminated more than a year of effort led by the CRC, a group of 18 organizations organized and co-chaired by the then-president of the Friends of Wertheim National Wildlife Refuge, BNL's Marty Van Lith, Physics Department.

Van Lith and the CRC were also supported in this legal battle by Environmental Defense (ED), the national environmental group that counts among its founders retired

BNLers Dennis Puleston and George Woodwell.

This most recent example of Van Lith's commitment to the community and environment shows why *The Long Island Advance* honored him as their 1999 Man of the Year.

Cited for his community involvement, dedication to environmental concerns, and his drive to preserve the history of the local area, Van Lith, who has worked for BNL for the past 32 years, serves on a wide range of local community-minded boards and committees.

Van Lith became involved in land preservation after moving

to Brookhaven Hamlet in 1982, when he volunteered with a local group that was responsible for having Brookhaven Hamlet designated as a Brookhaven Town Historic District.

After that, he served for nine years on the Hamlet's all-volunteer Brookhaven Village Association, where he began working on land-use issues with the late Virginia Brown, also a BNLer. With Brown's help and inspiration, Van Lith and others protected several environmentally sensitive pieces of land in the South Country area, among them: Southaven Properties, the

Robinson Duck Farm, Dennis Puleston Nature Preserve, Fireplace Nature Preserve, Long Meadow Farm, and the headwaters of Beaver Dam Creek.

Van Lith also worked to draft the initial legislation creating the New York State Great South Bay Maritime Reserve Act, as well as parts of the Brookhaven Town Master Plan.

An electronics technician for the PHENIX detector at RHIC, Van Lith is married to Anita Cohen, who was editor of the Brookhaven Bulletin from 1982 until 1998, and is now on long-term disability.

— John Galvin



Roger Stoutenburgh CNE-2-00

Stone Named Optician of the Year



Roger Stoutenburgh CNE-27-3-00

Robert Stone helps one of his BNL customers.

Robert Stone, who runs the BNL Safety Glasses office, was honored by the New York State Society of Opticians (NYSSO) as the 1999 Optician of the Year. Nominated by more than 1,200 of his fellow opticians from New York State, Stone has 13 years of service at BNL, along with a long list of other accomplishments, which earned him this prestigious honor.

The roll of an optician is similar to that of a pharmacist — to fill prescriptions for eyeglasses and contacts — not to perform eye exams or surgery, Stone explains.

Stone enjoys incorporating his knowledge and experience to solve the visual needs of an individual by creating the “perfect optical solution” for them.

“Opticianry is one of the most interesting and challenging careers,” says Stone. “The combination of new lens technology and the fashion frame design provide me with a blend of science and art that is very rewarding.”

Stone recalls starting his early work at BNL

as “something to do on my day off, and I’ve been here ever since.”

“Brookhaven Lab has afforded me the opportunity to expand my optical expertise to include safety glasses,” says Stone. “The wide range of occupations here require a variety of solutions for specific tasks — all of which include many specialty lenses that are often not used in private practice.”

After receiving his optician’s license from New York City Technical College, Stone joined the Opticians’ Society and has played an active role in the Society’s growth and direction since 1979. In 1998 Stone chartered the Suffolk Chapter of the NYSSO, which currently has 120 members who meet monthly.

In addition to operating BNL’s Safety Glasses office, Stone is the owner and president of Danesi Opticians in Centereach, as well as Raymond D. Leahy Opticians in Southampton. Stone also serves as an Adjunct Lecturer in the Ophthalmic Dispensing Department at Suffolk Community College.

— John Galvin

Arrivals & Departures

Arrivals

Lawrence W. Bachman
Safeguards & Security
Megan E. Gaiefsky
Medical

Alice Jimenez-Costantini
Staff Services
Eric Kramer
Waste Management
Bernard A. Ludewigt
Collider-Accelerator
Charles R. Theisen
Collider-Accelerator
Arthur J. Walker
Plant Engineering
Justin M. Wojciechowski
Radiological Control

Departures

Aidnag Diaz
Medical
Huan Feng
Environmental Sci. & Tech.
Richard Hintze
Collider-Accelerator
Wim T. Klooster
Chemistry
Philip Pietraski
NSLS
Mark D. Ray
Environmental Sci. & Tech.

Air Study (cont'd.)

west National Laboratory in Washington state will participate. Other collaborators include the Texas Natural Resource Conservation Commission (TNRCC), the U.S. Environmental Protection Agency, the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, and numerous universities.

DOE is participating in the study as part of its Atmospheric Chemistry Program, whose objective is to provide advanced information on the atmospheric environment, which is required for long-range energy planning.

For more information on the study, go to: <http://www.utexas.edu/research/ceer/texaqs/>

— Karen McNulty

Noon Recital, Wednesday, 9/27

Double Exposure Plays Berkner

“Firebreathing, over-the-top, having-a-ball pyrotech-



Thomas Bowes, Eleanor Alberga

nics. What a fiddler!” comments the Boston Globe of violinist Thomas Bowes of Double Exposure, a husband and wife team from the U.K. and the next featured musicians in the weekly Wednesday Noon Recitals given at Berkner Hall. Supporting Bowes “with taste, probity, and sensitivity,” according to the Los Angeles Times is pianist Eleanor Alberga, who is also a composer in her own right. The couple give what *Newsday* describes as “a powerful performance . . . stunning, virtuosic,” in concerts of Baroque, classical and Romantic masterpieces. Having played in the U.S., Britain and Asia, Double Exposure can next be heard on Wednesday, September 27, at noon, in Berkner Hall. Noon recitals, sponsored by the BSA Cultural Program, are free, informal, and open to all. Bring lunch if you like, and come and go as you please.

PC Training Classes

The following PC training classes will be scheduled for October and November:

- Access (Beginner)
- Access (Advanced)
- Excel (Beginner)
- Outlook
- PowerPoint (Intermediate)
- Project (Intermediate)
- Word (Beginner)
- Word (Intermediate)
- Word (Advanced)

For more information and course schedules see www.itd.bnl.gov/bnl/training.

To register for these classes or to register your interest in future classes, you must submit a Training Request Form and an ILR, for the appropriate amount to Pam Mansfield, Bldg. 515. When the form is received your name will be placed on a waiting list. All classes are scheduled based on the number of requests received. For more information contact Mansfield, Ext. 7286, pam@bnl.gov.

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, September 25, at 6 p.m. in the Knights of Columbus Hall, Railroad Avenue, Patchogue. A meeting for shift workers will be held at 3 p.m. at the union office. The agenda includes regular business, committee reports and the president’s report.

R&D 100 Award

(cont’d.)

energy. Geothermal wells pump hot water or steam from the interior of the Earth to drive electricity-generating turbines. In geothermal environments, however, an abundance of carbon dioxide causes conventional cement to deteriorate rapidly through a chemical process called carbonation. ThermaLock cement creates zeolite and calcium phosphate minerals that block this destructive chemical reaction. Sugama said, “The service life of ThermaLock cement is estimated to be about twenty years, whereas conventional cements severely deteriorate after only one year in the harsh environment of a geothermal well. ThermaLock cement is not only effective and economical, but also ‘green’ or environmentally friendly because it is made mostly of recycled fly ash — the by-product of coal combustion — and no harsh chemicals are used in manufacturing it. Besides using the cement in specialized environments, it can also be used in

walkways, roads and buildings — anywhere where ordinary cement is used.” In addition to fly ash, the formula for the cement includes calcium aluminate, sodium polyphosphate and water in compositions that vary with the depth at which the cement will be used. Since these materials are abundant and inexpensive, and no technical training is required to make the cement, it is economical compared to conventional cements. In 1997, large-scale field testing of the cement began at a geothermal well in Sumatra, Indonesia, operated by Unocal Corporation. Halliburton Company supplied the cement for these tests. Then, in the first commercial use of the product, the Japan Petroleum Exploration Company used the new cement in April 1999 to complete the geothermal wells in Kyushu, Japan. The company subsequently used more than 140 tons of the product to build several more geothermal wells. — Diane Greenberg

2000 Volleyball Champs



Joe Rubino CN9-11-00

The *Drilling and Excavation Co.* gold-mined their way to first place, defeating team *Shank, Carry, and Throw* for the Open A League Championship. They include: (from left) Gene Van Buren, Marie Van Buren, Rui Mei Ma, and Travis Shrey. Not present: Bill Kropp, Dieter Lott, Dan Mullaly, and Jean Spears.



Joe Rubino CN9-13-00

Team *Late Entry* showed that it’s better late than never when they defeated *Monday Night Live* for the Open B League title. They include: (from left) Alfred Della Penna, Jeffrey Wilke, Sue Cataldo, John Miller, and John Addressi. Not present: Michael Cowell, Allen Jones, and Tom Tsang.



Joe Rubino CN9-14-00

Team *I Want Your Sets* got exactly what they wanted by beating murderous competition from team *Set to Kill* in League I. They include: (from left) Gene Van Buren, Joe Greco, Marie Van Buren, D.J. Greco, and Travis Shrey. Not present: Bill Kropp, Ali Lopez, Dieter Lott, Dan Mullaly, and Jean Spears.



Joe Rubino CN9-12-00

Team *Six Samurai* sliced their way through the *Upton Ups* to finish in first place in League III. Including some of their smallest fans, they are: (front, from left) Nami Saitoh, Michiko Kurita and her son and daughter, Akiko Tomatsu and her son, and Hikari Shigaki with her son; (back, from left) Yasushi Watanabe, Kuzuyoshi Kurita, Kenta Shigaki, and Naohito Saito. Not present: Yuji Goto, Hisashi Hayashi, Seiko Hayashi, Hironori Horie, Yasushi Nara, George Redlinger, Takehiko Saito, Kazutern Shinozaki, and Miho Shinozaki. Team *Safe Sets* earned the first place title in the Mixed 2 league after eating up the *Spiked Jello* team. A little too hazy to pose for a picture after all that Spiked Jello, Team Safe Sets include: Alice Cialella, Payton King, Ali Lopez, Nancy Meier, Lisa Mitchell, George Morgan, Dawn Mosoff, Doug Paquette, Beth Schwaner, and Ed Taylor.

Calendar

(continued)

Friday, 9/29

Softball League Party
5:30 p.m. Brookhaven Center
\$10 per person by 10/27
Andrea Epple, Bldg. 51M

— WEEK OF 10/9 —

Friday, 10/13

***Golf Tournament**
BERA Golf Association end of the year golf tournament at Calverton Links.

Saturday, 10/14

N.Y.C. / Hayden Planetarium
\$19 per person
Do your own thing or visit the Hayden Planetarium, or the American Museum of Natural History. Bus will make two stops: (1) North side of Museum at West 81st Street. (2) Rockefeller Center area for shopping, browsing, or dining. Departs from Brookhaven Center at 11 a.m. and returns at 7 p.m. — BERA event.

Sunday, 10/15

Walk to Fight Breast Cancer
Enjoy a walk on the Jones Beach Boardwalk for the American Cancer Society in “Making Strides Against Breast Cancer.” Information and volunteer registration packets are available in the BERA Sales Office. — BERA event.

— WEEK OF 10/23 —

Healthfest this week - look for registration forms in the mail. Contact Mary Wood, Ext. 5923, wood2@bnl.gov.

Monday, 10/23

Healthfest 2000 Walk
12:05 p.m.
(Stretch at 11:45 a.m.)

Tuesday, 10/24

Healthfest 2000 Run
12:05 p.m.
(Stretch at 11:45 a.m.)

Wednesday, 10/25

Healthfest Health Fair
11 a.m. to 2 p.m.

Mountain Bike Ride
noon

Brazilian Folk Music Recital
noon recital
8 p.m. concert, Berkner Hall
ANIMA ensemble plays traditional Brazilian & early music.

Thursday, 10/26

Healthfest Health Fair
11 a.m. to 2 p.m.

Tennis Fitness Workshop
11:30 a.m. to 1:30 p.m.

Friday, 10/27

Golf Fitness Workshop
11:30 a.m. to 1:30 p.m.

— WEEK OF 12/4 —

Saturday, 12/9

Radio City Christmas Show
\$89 per person
2 p.m. matinee at Radio City Music Hall. — BERA event.

Note: This calendar is updated continuously and will appear in the Bulletin whenever space permits. Submissions must be received by the preceding Friday at noon to appear in the following week’s Bulletin. Please enter the information for each event in the order listed above (date, event name, description, and cost) and send it to bulletin@bnl.gov. Write “Bulletin Calendar” in the subject line.

Join Aerobics

The BERA Aerobic Dance and Stretch Club will begin a new session of classes on September 19th in the Recreation Bldg. in the apartment area. All are welcome; no prior experience is needed. Aerobic Dance will be held on Tuesdays and Thursdays at 5:15; Stretch classes will be held on Wednesdays at 5:15. Cost is \$4.00 per class or \$35.00 for any ten classes with one make-up class. For more information, call Pat Flood, Ext. 7886, or Susan Monteleone, Ext. 7235.

On-Site Playgroup

The Hospitality playgroup offers mothers an opportunity to meet others and share experiences while the children are playing and making new friends. The group meets every Wednesday morning, from 9:30 until 11:30 in the Recreation Building on site. The group is free, and you can drop in at any time. For more information, call Monique de la Bey, 399-7656.

Job Opportunity

SECRETARY - DOE Brookhaven Group Office - Contractor Position. General secretarial duties, including data entry, filing, knowledge of MS Office; Word, PowerPoint, and Excel a must; Access a plus. Customer oriented with good communication skills. Call Infosys International, Inc. Attn: Krupa Panchal (631) 576-9494, or fax resume to (631) 576-0034.

Classified Advertisements

LABORATORY RECRUITMENT - Opportunities for Laboratory Employees

NS8850. PRICE-ANDERSON AMENDMENTS ACT (PAAA) COORDINATOR - Requires a BS in science/engineering or equivalent experience (an MS with emphasis in radiological or nuclear work is a plus) and professional staff experience in either a radiation safety or QA program at a DOE nuclear facility or a large NRC/Agreement State licensed program. Familiarity with nuclear safety requirements of 10 CFR 835 (Occupational Radiation Protection) and/or 10 CFR 830.120 (QA Requirements) is necessary. Will review and identify potential noncompliance, convene and chair meetings of the PAAA Working Group to review potential noncompliance, maintain PAAA database, track and trend noncompliance, prepare and submit final NTS report, monitor corrective action, and serve as primary point-of-contact between BNL PAAA activities and the DOE PAAA point-of-contact. Independent Oversight Office.

OPEN RECRUITMENT – Opportunities for Laboratory employees and outside candidates.

MK8852. MANAGER, ENVIRONMENTAL SERVICES DIVISION - Requires a BS/MS or Ph.D. in environmental science, engineering or closely related field, 15-20 years environmental protection experience in positions of increasing responsibility, including at least 5 years management experience with environmental professionals and technical staff responsible for environmental protection programs. Additional requirements include exceptional technical, leadership, interpersonal and strategic planning skills; excellent customer service orientation, strong knowledge of environmental compliance, multi-media protection programs, and Environmental Management Systems. Will manage Division and be responsible for leading the development and delivery of high quality environmental products and services, developing effective working relationships with BNL stakeholders (internal and external,) and ensuring that products and services are value-added, timely, effective, efficient, and protective of the environment. ESH & Quality Directorate.

MK7986. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in physics or nuclear chemistry. Position is with the PHOBOS Heavy Ion Research Group. PHOBOS is a detector at the Relativistic Heavy Ion Collider and has just completed a successful first year of running with colliding gold ions, collecting several million events. It is a multi-purpose detector with 4 π multiplicity coverage and a multi-particle spectrometer with excellent low-pT capabilities. Under the direction of P. Steinberg. Chemistry Department.

Road Paving

Road paving has been tentatively scheduled for today, Friday, 9/22 and Saturday, 9/23 as follows:

- Friday, 9/22
 - Center St. between Bell Ave. and Brookhaven Ave.
 - Rochester St. from Bell Ave. to South Harvard St.
 - Columbia St. from Brookhaven Ave. to Johns Hopkins St.
 - West Fifth Ave. from 1006b to Thompson Rd.
- Saturday, 9/23
 - Upton Rd. from Princeton Ave. to Cornell Ave.

Access to these areas will be limited throughout each day. The raindates are Friday, 9/29 and Saturday, 9/30. For more information, contact Mel Bonanno, Ext. 3082.

Golf Tournament

Come join the BERA Golf Association for its end-of-the-year golf tournament to be held at the redesigned Calverton Links on lucky Friday 13 October.

The format will be a 2-person best ball (with mulligans). BGA member costs are \$37, which covers golf, cart, a bag of balls, and \$5 in the pro-shop towards prizes.

Cost for non-members is \$57. For more information contact Jeff Williams, Ext. 5587, or jwilliams@bnl.gov.

MK9073. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in chemistry, chemical engineering, physics, or material science, a strong background in surface science, and experience in UHV instrumentation and surface analytical techniques. Will participate in studies of the structural, electronic, and chemical properties of model catalytic materials. Under the direction of J. Rodriguez. Chemistry Department.

NS8632. ELECTRONICS ENGINEERING POSITION - Requires an MSEE and five years experience, or equivalent, and knowledge of rf, low frequency analog and digital circuitry. Experience with beam position monitors and optical systems is desired. Will work with a team of engineers and technicians in the ongoing effort to improve and upgrade diagnostic/control systems associated with electronic beams. Diagnostics Group/National Synchrotron Light Source Department.

NS9072. COMPUTER ANALYST POSITION - Requires a bachelor's degree in a related field and experience with Microsoft operating systems and software, UNIX (Linux, SGI, AIX and Solaris,) and Macintosh systems. Strong interpersonal skills, self-motivation, and ability to work independently with conflicting priorities are also required. Familiarity with firewalls, LabView, C++ and HP OpenView desirable. Prior experience in a scientific environment is helpful. Will be responsible for computer support for the Department, including troubleshooting, networking, computer security, web page administration, and system management and support (hardware/software). Chemistry Department.

DD9045. MEDICAL ASSOCIATE POSITION - Requires a BS degree in a biological science such as neurobiology, biochemistry, or cell biology and experience with tissue culture techniques, biochemistry, cell biology, and molecular biology. Good communication skills and the ability to work in a group setting are also required. Under general supervision, will assist the logistic support of NASA users in the execution of heavy ion radiobiology experiments using AGS BAF beam lines. Responsibilities include the maintenance and operation of routine computer operations. Medical Department.

NS8929. BUDGET POSITION - Requires a bachelor's degree in accounting, finance, or a relevant discipline, several years' accounting or finance experience, and knowledge of spreadsheet and database applications (Excel, Access.) Familiarity with Laboratory systems and PeopleSoft is desirable. Primary responsibilities are budgets and reporting in relation to operating, fuel, electric power, and sales accounts. Plant Engineering Division.

DD8691. DESIGN POSITION - Requires the ability to perform mechanical design functions with a working knowledge of engineering fundamentals, machine design, shop practices, welding, and vacuum systems.

Gretchen Cisco Hopes Son Brings Home Gold

McCoy Wrestles in Sidney Next Week

On Friday, September 29, Gretchen Cisco of BNL's Human Resources Division will be watching with excitement and anticipation from the stands of the Sydney Exhibition Centre as her son, Olympic heavyweight freestyle wrestler Kerry McCoy, competes in the 2000 Olympic Games in Sydney, Australia.

Cisco will be leaving for Sydney on the 24th and her son's first match will take place on September 29. Semifinals will follow on September 30, and the medal rounds will begin on October 1.

To secure the heavyweight spot on the U.S. Olympic team, the 260-pound McCoy defeated the reigning world champion, Stephen Neil, in the finals of the freestyle division in Dallas on June 24.

The 26-year-old McCoy, a former Longwood High School graduate, was the number one seed in the eight-man challenge tournament. McCoy defeated Neil 4-1 and 6-4 in the best of three final round match.

"When entering college, Kerry's goal was to compete in the World Olympics," says Cisco. "I thought to myself, 'Wow son, you certainly have big dreams,' but I believed his goal was obtainable."

Upon his return from Sydney, McCoy plans on finishing his MBA and will resume coaching wrestling at Lehigh University.

Complete information, including schedules and media coverage of the 2000 Olympic Games can be found at www.msnbc.com.

— John Galvin

Find this photo and biographical information on Kerry McCoy's Web site: www.kerrymccoy.homepage.com.

Must be familiar with Window NT environment, AutoCAD 2000, Mechanical Desktop, and ANSI Y14.5 Standard. Will be responsible for design projects from conceptual layouts to detailed working drawings. Collider-Accelerator Department.

DD7612. TECHNICAL POSITION - Requires an AAS degree in design/drafting and extensive experience in the field of printed circuit board design for digital/analog high frequency microwave and rf circuits. Experience with PADS schematic and layout tool, CADENCE Spectra Autorouter, CAM350, and AutoCAD is required, as is familiarity with component creation for layout and methodizing for board fabrication and assembly. IPC Designer Certification is desirable. Good communication skills and the ability to work in a group setting are required. Instrumentation Division.