

## BNL Scientists Use Nanoparticles To Speed Up Chemical Action

**B**NL scientists, with funding from DOE's Office of Basic Energy Sciences in the Office of Science, are exploring new ways to improve the performance of catalysts — materials used to accelerate chemical reactions — that contain tiny, "nanosized" metal particles. Only millionths of a millimeter in size, "nanoparticles" are widely used for commercial chemical production, in fuel cells, and in cars' catalytic converters.

Most catalysts are made of a powder of metal-oxide particles several thousandths of a millimeter in size, to which metal particles a thousand times smaller are attached. Among the many advantages offered by nanoparticles is that they have a lot more surface area than larger particles, thus increasing the chemical reaction yield.

"If we use metal nanoparticles as catalysts, the amount of metal needed is reduced considerably," says BNL chemist Michael White, leader of the nanocatalyst project, "which is quite important since some of the most active metals, platinum and rhodium, are also the most expensive."

Another key advantage of nanoparticles is that scientists can vary the particles' physical

properties — size, shape, chemical surrounding — to "tune" their catalytic activity.

"Because of their small size, nanoparticles are very sensitive to the surrounding environment," White says. "The reactivity can vary considerably depending on whether they are supported on metallic or metal-oxide surfaces, or confined in porous materials that trap the nanoparticles in cavities."

The BNL chemists working with White include Robert Beuhler, Etsuko Fujita, Jon Hanson, Jan Hrbek, James Muckerman, José Rodriguez, and Trevor Sears. They hope to use the unique properties of metal nanoparticles to find the next generation of catalysts

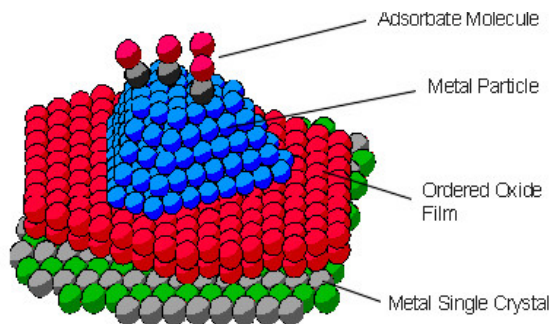
that have applications in energy-related technologies.

White's team is exploring how nanosized metal alloys of carbon and nitrogen could be used to improve the efficiency conversion of methane to hydrogen gas, which is expected to power fuel cells in the future. The scientists are also trying to improve catalytic converters to reduce nitric oxide, a toxic gas released in car exhaust.

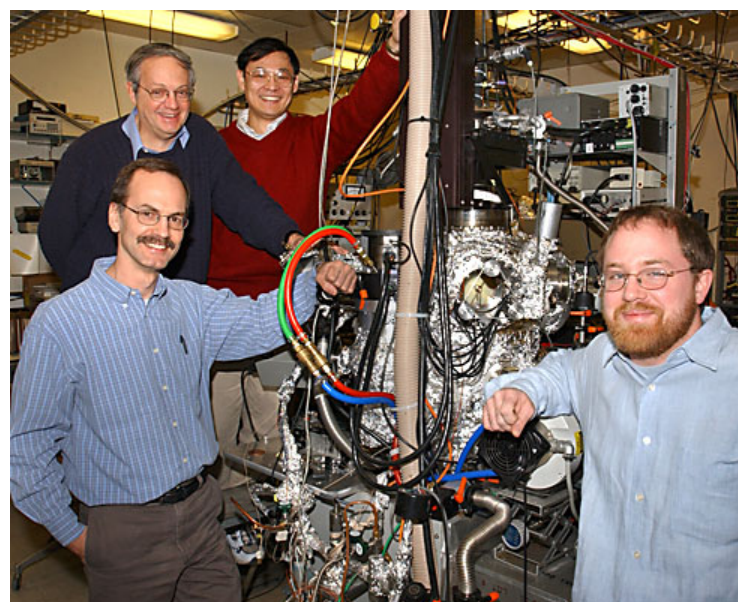
White and his collaborators expect to test such nanocatalysts at BNL's National Synchrotron Light Source, where x-rays will be projected on the catalysts to study their size, morphology, and electronic structure.

The researchers are also building a device that will

**A representation of a metal nanoparticle deposited on a metal-oxide surface. A catalyst made of many metal nanoparticles is more efficient than one single piece of metal.**



This figure is reproduced by permission of Hajo Freund of the Fritz-Haber-Institute, Germany.



Roger Stoutenburgh D0010302

Among BNL's researchers using nanoparticles are: (from left) Michael White and Robert Beuhler, both of the Chemistry Department; Ming Yu, Department of Environmental Sciences; and James Lightstone, BNL Chemistry and a Stony Brook University graduate student.

count the number of atoms present in the metallic nanoparticle. The machine, called a size-selected mass spectrometer, can count the atoms one by one, allowing the scientists to build nanoparticles with a size varying from one atom to 200 atoms.

White says that the future Brookhaven Nanoscience Center, currently being reviewed by DOE, would allow BNL to make significant progress in the development of nanocatalysts, by helping fund new state-of-the-art equipment, and encouraging world-class

researchers to participate in the new field of nanoscience.

"Nanocatalysts will have an enormous commercial impact in the future," says Richard Osgood, BNL Associate Laboratory Director for Basic Energy Sciences. "Long Island, with its focus on science and technology, is the right place for a nanoscience center, where scientists will pursue basic research and develop industrial applications. Also, the BNL program is amplified by our close proximity to the East Coast chemical industry and collaborating colleagues in many nearby universities." — Patrice Pages

## DOE Celebrates Heroic Contributions of BNL, DOE Staff

**I**n recognition of the bravery of BNL Security Officer Matthias Harrington and the outstanding contribution of 29 DOE and BNL employees who responded to the World Trade Center following the September 11 terrorist attacks, Michael Holland, Manager of the DOE Brookhaven Area Office (BAO), held a luncheon for the honorees on Thursday, February 28.

To recognize the contributions made above and beyond the call of duty, DOE Chicago Operations Office Manager Marvin Gunn, who hosted the event on behalf of Energy Secretary Spencer Abraham, presented the honorees with certificates of achievement from the Secretary and conveyed his message: "You are an honor to the DOE family."

In adding his thanks for the actions performed by the hon-



Congratulating BNL Security Officer Matthias Harrington (right) are: (from left) Resi Cooper, U.S. Senator Hillary Rodham Clinton's Long Island Director; Christopher Hahn, U.S. Senator Charles Schumer's Long Island Director; Mike Losquadro, staffer from the office of U.S. Representative Felix Grucci; Michael Holland, Manager of DOE Brookhaven Area Office; and Marvin Gunn, Manager of DOE Chicago Operations.

orees, Gunn also remembered the many others who gave support to New York City, New York State, and the nation during the recent tragic events.

As Holland explained, last summer, while off duty at an

eastern Long Island beach, Officer Harrington rescued a mother and daughter who were in imminent danger of drowning. Harrington, who put his own life at risk during the rescue, received a plaque

of appreciation from the Energy Secretary.

In addition, Holland continued, DOE and BNL employees answered the call for help from New York City following the terrorist attacks, in several

ways. The Radiological Assistance Program team at BNL helped determine if any radiography sources were stored or used in either of the Twin Towers of the World Trade Center. BNL firefighters also responded to the site of the attack.

At the luncheon, which was organized by John Carter, DOE BAO's Community Affairs Director, warm congratulations to the honorees were given by Thomas Sheridan, BNL's Deputy Laboratory Director for Operations, and appreciation was also expressed in a letter from General John McBroom, Director of DOE's Office of Emergency Operations.

More congratulations were delivered: from U.S. Senator Charles Schumer by his Long Island Director Christopher Hahn, from U.S. Senator Hillary Rodham Clinton by her Long Island Director Resi Cooper, and from U.S. Representative Felix Grucci by his staffer Mike Losquadro.

On behalf of Grucci, Losquadro also presented Congressional certificates to the honorees in recognition of their dedication.

Gunn expressed pride "that our nation responded so quickly and well to the events of September 11.

"The real strength of our country is that we can unify and all pull together — keep up the good work," he concluded.

— Liz Seubert



Roger Stoutenburgh D0630202

Attendees at DOE's awards luncheon on February 28 included many of the 29 DOE and BNL honorees from the Radiological Assistance Program team at BNL, and BNL Security Officer Matthias Harrington (center, front), whose family members were also present.



Calendar of Laboratory Events

- The BERA Sales Office is located in Berkner Hall and is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347; or M. Kay Dellimore, Ext. 2873.
- Additional information for Hospitality Committee events can be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building (Rec. Bldg.) is located in the apartment area.
- Contact names are provided for most events for more information.
- Calendar events flagged with an asterisk (\*) have an accompanying story in this week's Bulletin.

— EACH WEEK —

- Mondays: BNL Gospel Choir**  
5:15-7 p.m. Berkner Hall. [www.bnl.gov/bera/activities/choir/](http://www.bnl.gov/bera/activities/choir/).
- Mon., Tues., & Thurs.: Aqua Aerobics**  
5:15-6:15 p.m. \$2 pool fee per class or use pool pass. Mary Wood, Ext. 5923.
- Mon., Tues., & Thurs.: Kickboxing**  
\$5 per class. Mon. & Thurs. noon-1 p.m. in the gym; Tues., 5:15-6:15 p.m. in the gym; Thurs., 5:15-6:15 p.m. in Brookhaven Ctr. Registration is required. Mary Wood, Ext. 5923, or [wood2@bnl.gov](mailto:wood2@bnl.gov).
- Mon., Tues., & Fri.: Tai Chi**  
12:15 - 12:45 p.m., Rec. Bldg. Scott Bradley, Ext. 5745, [bradley@bnl.gov](mailto:bradley@bnl.gov).
- Tuesdays: Welcome Coffee**  
10-11:30 a.m. Rec. Bldg. Hospitality event. Come and meet friends. The first Tuesday of every month is special for Lab newcomers and leaving guests. Hospitality Chair Mimi Luccio, 821-1435.
- Tuesdays: Toastmasters**  
Meetings are 1st and 3rd Tuesday of each month at 5:30 p.m. in Bldg. 463, Room 160. Guests, visitors always welcome. [www.bnl.gov/bera/activities/toastmasters/default.htm](http://www.bnl.gov/bera/activities/toastmasters/default.htm).
- Tuesdays & Thursdays: Aerobics**  
5:15-6:30 p.m., \$4 per class. Rec. Bldg. Pat Flood, Ext. 7886.
- Mon. Tues., Wed., Thurs., & Fri.: English for Speakers of Other Languages Classes**  
Various times. Rec. Bldg., 2nd Floor. Learn English, Make Friends. Jen Lynch, Ext. 4894.
- Wednesdays: English Exchange Table**  
noon-1:30 p.m., Berkner Hall. Native and non-native English speakers are welcome. Make friends and improve English skills. Jen, Ext. 4894, [lynch@bnl.gov](mailto:lynch@bnl.gov).
- Wednesdays: Weight Watchers**  
noon-1 p.m., Brookhaven Center South Room. Mary Wood, Ext. 5923, [wood2@bnl.gov](mailto:wood2@bnl.gov).
- Wednesdays: Yoga Practice**  
noon-1 p.m., Rec. Bldg. Free. Ila Campbell, Ext. 2206.
- Wednesdays: Stretch**  
5:15-6:15 p.m., \$4 per class. Rec. Bldg. Pat Flood, Ext. 7886.
- Wednesdays: BNL Ballroom, Latin & Swing Dance Club Lessons**  
6-9 p.m. North Ballroom, Brookhaven Center. Marsha Belford, [belford@bnl.gov](mailto:belford@bnl.gov) or Ext. 5053, or [www.bnl.gov/bera/activities/dance](http://www.bnl.gov/bera/activities/dance).
- Thursdays: Falun Dafa Class**  
noon-1 p.m., Free. Rec. Bldg. Falun Dafa refines the body and mind through exercises, meditation. [www.falundafa.org](http://www.falundafa.org).
- Fridays: BNL Social & Cultural Club**  
7-11:30 p.m., Brookhaven Ctr., dance social. Rudy Alforque, Ext. 4733, [rudy@bnl.gov](mailto:rudy@bnl.gov).

**March Is Women's History Month**  
See month-long display in Berkner lobby on "Women Sustaining the American Spirit," take quiz with weekly book prize. Also, see March 21 lecture notice on page 4.

— TODAY —

Friday, 3/8

**GLOBE Meeting**  
The Gay, Lesbian, and Bisexual Employee Club at BNL will hold its monthly meeting at 7 p.m. Plans to celebrate Gay Pride Month in June will be discussed. For the meeting's location, contact Debbie Bauer, Ext. 5664, or Mike Loftus, Ext. 2960. For more information about the GLOBE club, see [www.bnl.gov/bera/activities/globe](http://www.bnl.gov/bera/activities/globe).

— WEEK OF 3/11 —

Monday, 3/11

**ESOL Monday Night Movie**  
7 p.m. Location and movie title to be announced. Meet new people, eat popcorn, and watch the free video. Children are welcome. Sponsored by BNL's English for Speakers of Other Languages Program. Jen Lynch, Ext. 4894, [lynch@bnl.gov](mailto:lynch@bnl.gov).

Tuesday, 3/12

**\*BERA Book Fair, 3/12 & 13**  
10 a.m.-3 p.m. Berkner Hall. See notice on page 3. Andrea Dehler, Ext. 3347.

Ten-Year Sanitary System Upgrade

Plant Engineering has put in ten years of hard work, but it's been well worth the investment of time, effort, and dollars," said Project Manager Greg Flett, Plant Engineering (PE) Division. The hard work that Flett is referring to is PE's ambitious multi-phase project, begun in 1992, to upgrade the Lab's sanitary system, all to improve treatment capability and prevent unmonitored discharges to the environment.

This spring, with an additional upgrade at the sewage treatment plant, the last of the major efforts within the project will be completed.

Sanitary wastewater is collected from BNL facilities and piped through about 20 miles of sewers to the sewage plant for treatment. Over the project, different sections of this entire network were upgraded in three different phases.

Phase I focused on the plant itself. It was upgraded from a primary system (separating solids physically), to a secondary system (using a biological process to remove fine suspended particles), to a tertiary system (removing nitrogen to polish the effluent). This was done to improve the effluent before discharge to the Peconic River. In addition, 3,500 linear feet of the main trunk line to the plant were replaced.

Under Phase II, PE upgraded a whopping 14,000 linear feet of sewer lines, mainly in the core of the site, and additionally enhanced the plant. The division then replaced 18,000 linear feet of sewer under Phase III, which included connecting RHIC to the sanitary system.

All told, PE has upgraded about one-third of the sanitary system.

According to Flett, a little over 20 miles of sewers weave through the site, mostly laid down during Camp Upton days.

"All the original sewers were made out of clay-tile pipe because it doesn't corrode," said Flett. "But clay is also brittle, making it prone to cracking." For that reason, he explained, clay-tile pipe was manufactured in three-foot lengths, resulting in a major problem: high potential for leaks around the joints and cracks.

Through the years, PE used various means to leakproof the

sanitary system. For instance, when new buildings were constructed, new sewer lines went with them, either cement-lined ductile iron or plastic PVC pipe. Also, cured-in-place polyester liners were installed when excavation was too costly or disruptive to replace cracked pipes or loose joints.

Just as important as tightening the sewers were the upgrades to the treatment plant.

Following initial improvements, Phase II and III enhancements included ultraviolet disinfection to replace chlorination, and replacement of the anaerobic digester with an aerobic digester.

Since aerobic digestion is more efficient, that improvement should give better solids reduction, according to Flett. "BNL's sanitary system is now one of the best in the region," he said.

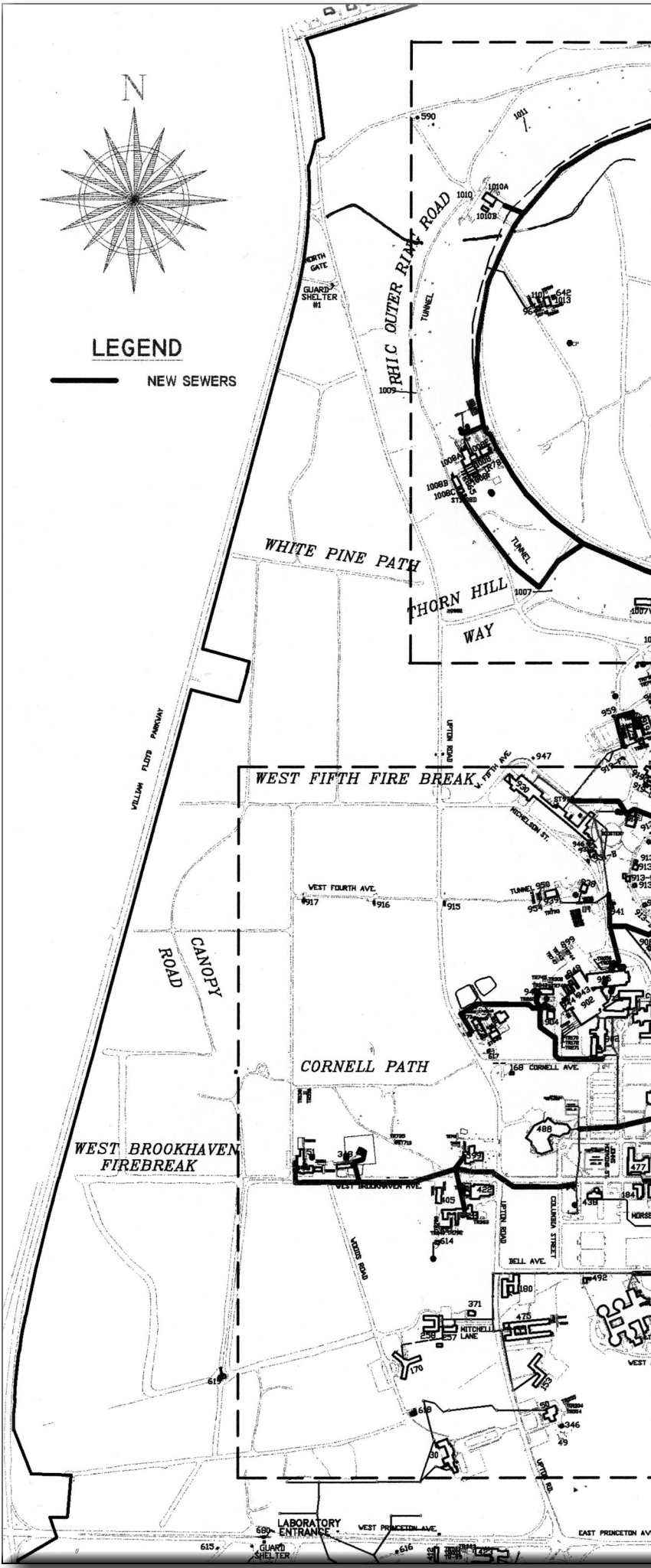
Where did the money come from to pay for all the upgrades through the past decade? "For multi-program labs like BNL, DOE sets aside line-item dollars to support laboratory infrastructure," said Flett. "Each phase was funded by DOE's Laboratory Infrastructure Division. PE developed a conceptual design report that identified need and cost two years before we needed the funding."

Also, working with BNL's Environmental Services Division, PE identified and set priorities for which piping should be replaced based on its condition and environmental risk of the facilities it supported. In total, BNL has received \$14.5 million from DOE for the project.

Historical operations and discharges to the sanitary system in its past condition have resulted in low-level contamination on site, including at the sewage treatment plant. In more recent years, the Lab has been actively working to remediate the site (see box below).

Flett summed up the importance of the sanitary upgrades, saying the original strategy grew out of the Master Plan that Michael Bebon, now Assistant Director for Facilities and Operations, commissioned back in the late 1980s. "This has been a long-term commitment, both from DOE and BNL," he said.

— Mona S. Rowe



Smokers Needed for Imaging Studies

Healthy people who smoke and are between 20 and 85 are needed to participate in PET imaging studies at BNL. Past studies have shown that smokers' brains have reduced levels of MAO, an enzyme that breaks down neurotransmitter amines. An important detoxifying agent, MAO can also affect the levels of dopamine and certain neurotoxins. Because smoke exposes the whole body to the substances that lowers the MAO levels, researchers will examine MAO levels in other organs in the body. A fee will be paid and confidentiality will be maintained. To volunteer or for more information, contact Naomi Pappas, Ext. 5015 or toll free 1-888-352-7380.

Candidates for BERA Board

The BERA Nominating Committee has selected the following candidates to run in the 2002 BERA Board elections: John McCaffrey, Terry Monahan, Susan Monteleone, and Gerry Shephard. During the week of March 25-29, eligible employees of BNL, DOE, other permanent on-site employees, BNL facility users, and guests may vote for two of the four candidates to serve on the 2002 BERA Executive Board beginning May 1, 2002. Information on the candidates and on the election will be published in next Friday's Bulletin.

DOE, Regulators Reach Agreement On Cleanup of Sewage Treatment Plant

In February, N.Y. State Department of Environmental Conservation, the U.S. Environmental Protection Agency, and DOE agreed on cleanup plans for soil and groundwater contamination at BNL's sewage treatment plant.

The agreement, reached after extensive regulator and public review and comment, allows DOE and BNL to implement the selected remedies. It also marks an important milestone in DOE's plan to complete cleanup of the site.

The remedies are detailed in a document called the "Operable Unit V Sewage Treatment Plant Record of Decision." The document is available at local libraries, and on the BNL web site at <http://www.bnl.gov/erd/peconic/docs.html>.

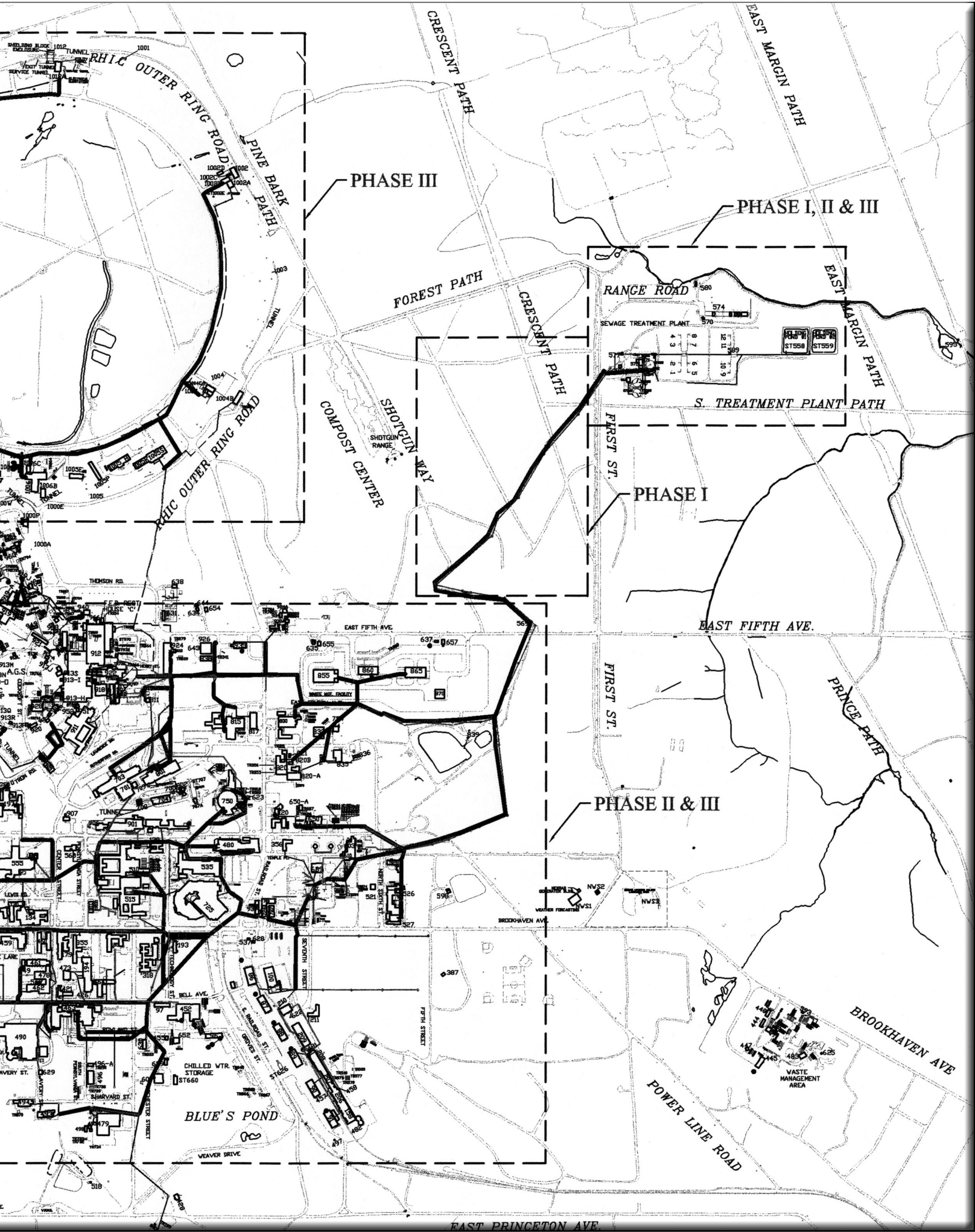
The Record of Decision presents the selected remedial actions to clean up heavy metals and low-level radionuclides at the Lab's sewage treatment plant and its associated components: sand-filter beds and berms, sludge-drying beds, and sewer lines. It also addresses an off-site plume, or area of groundwater contamination, containing low levels of tritium and the chemical solvent trichloroethene.

A decision on cleaning up Peconic River sediment is expected later this year.

— Peter Genzer



# to Be Completed in Spring



## BERA Book Fair

BERA will sponsor a Book Fair in Berkner Hall next Tuesday & Wednesday, March 12 & 13, 10 a.m.-3 p.m. New, hardcover books will be in stock and sold at up to a 70 percent reduction. Gift items will also be available. Credit cards and checks will be accepted. For more information, call Andrea Dehler, Ext. 3347.

## Arrivals & Departures

### Arrivals

Brian Boyer ..... NNS  
Myoung-Nyoun Kim ..... NCDIC  
Ofer Rind ..... Physics

### Departures

Patricia Dillon ..... OMC  
Franklin Federmann ..... Dir. Office  
Michele Hall ..... ITD  
Karen Savino ..... EENS  
Yu Zhao ..... NSLS

## Money Talks Seminar Economic Growth and Tax Relief Reconciliation Act, 3/18

The Brookhaven Science Associates 401(k) Plan will take advantage of the significant changes created under the Economic Growth and Tax Relief Reconciliation Act (EGTRRA). In addition, EGTRRA created changes in qualified tuition plans and tax reform for individuals. Join a representative from TIAA-CREF who will discuss these changes on Monday, March 18, at noon in Berkner Hall.

Topics will include:

- Additional opportunities to save for retirement:
  - Increase in 401(k) plan limit
  - Catch-up contributions
- Enhanced rollover rules
- Tuition plan flexibility.

Check your mailbox for registration forms, which must be returned to Joyce Wund, Bldg. 185, by Monday March 11. For more information, contact Wund, Ext. 7516, or [jwund@bnl.gov](mailto:jwund@bnl.gov).

## Daffodil Sale

BERA will sell daffodil bouquets at \$7 each to benefit the American Cancer Society. Reserve bouquets at the BERA Sales Office now for pickup on Tuesday, March 19. Daffodils will also be on sale that day. For more information, call Andrea Dehler, Ext. 3347.

## Retirement Counseling

A TIAA-CREF representative will visit BNL on Tuesday and Wednesday, March 19 & 20, to answer BNers' questions regarding the TIAA-CREF retirement plan, including: TIAA and CREF differences, allocating funds between TIAA and CREF, options, flexibilities with TIAA/CREF, retirement options.

To arrange a 45-minute appointment, call Duane Walden, (800) 842-2733, Ext. 7289 (not the on-site Ext. 7289).

## Calendar

### Tuesday, 3/12 (cont'd.)

#### Modular Devices Demo

11 a.m.-5 p.m., Berkner Hall Lobby. A representative from Modular Devices Inc. will present radiation-tolerant and radiation-hardened DC to DC converters and power supplies. Catalogs will be available as well. Bill Henry, 345-3100.

#### Workshops: Cholesterol & Hypertension

Cholesterol workshop: 11:30 a.m.-12:15 p.m. Bldg. 490, Small Conference Room. Participants must register in advance to have blood work done prior to the workshop.

Hypertension workshop: 12:30-1:15 p.m. Bldg. 490, Small Conference Room. Topics will include nutritional foods, healthy dining out, easy cooking. Program will be facilitated by a registered dietitian. Contact Mary Wood, Ext. 5923, [wood2@bnl.gov](mailto:wood2@bnl.gov).

### Wednesday, 3/13

#### \*BERA Book Fair

10 a.m.-3 p.m. Berkner Hall. See notice on page 3. Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

#### Rifle & Pistol Club Meeting

Noon, Conference Room, Bldg. 535. Jim Durnan, Ext. 5993, or [www.bnl.gov/bera/activities/rpc/](http://www.bnl.gov/bera/activities/rpc/).

#### Science Discussion Group

12:30-1:30 p.m., Berkner Hall, Room D. Patrice Pages, Ext. 3270, [pages@bnl.gov](mailto:pages@bnl.gov).

### Friday, 3/15

#### EAP Outreach Program

noon, Berkner Hall. Marion Gindes will present "Be Your Own Best Coach: How to Put Your Personal Resources to Work For You."

### Saturday, 3/16

#### \*Defensive Driving

9 a.m.-3:30 p.m. See notice on page 4.

### — WEEK OF 3/18 —

### Monday, 3/18

#### \*Money Talks Seminar

noon, Berkner Hall. A representative from TIAA-CREF will present information about the Economic Growth and Tax Relief Reconciliation Act. Joyce Wund, Ext. 7516.

### Wednesday, 3/20

#### Brookhaven Lecture

4 p.m., Berkner Hall, Brookhaven Lecture on strangeness in nuclei will be given by Morgan May of the Physics Department.

### Thursday, 3/21

#### Safety Shoe Office Closed

The Safety Shoe Office will be closed from Thursday, 3/21, to Monday, 3/25. It will reopen on Tuesday, 3/26.

#### \*Civil Rights History Talk

noon, Berkner Hall. Civil Rights Leader Amelia Boynton Robinson, winner of the 1990 Martin Luther King Freedom Medal, will describe her lifetime experiences. All are welcome to this free event.

#### BAC Meeting

12:30-1 p.m., Berkner Hall, Room C. Brookhaven Advocacy Council Meeting, Open Session. [www.bnl.gov/bac](http://www.bnl.gov/bac).

#### BERA Bridge Club

7 p.m., Berkner Hall Cafeteria. Morris Strongson, Ext. 4192, [mms@bnl.gov](mailto:mms@bnl.gov).

### — WEEK OF 3/25 —

### Monday, 3/25

#### IBEW Meeting

6 p.m., Knights of Columbus Hall, Railroad Ave., Patchogue. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, and the president's report.

*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](mailto:bulletin@bnl.gov). Write "Bulletin Calendar" in the subject line.*



Classified  
Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference 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, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882; call the JOBSITE, Ext. 7744 (344-7744), for a list of all job openings; use a TDD system to access job information by calling (631) 344-6018; or access current job openings on the World Wide Web at [www.bnl.gov/JOBS/jobs.html](http://www.bnl.gov/JOBS/jobs.html).

**OPEN RECRUITMENT** — Opportunities for Laboratory employees and outside candidates. MK2364. POSTDOCTORAL RESEARCH ASSOCIATE — Requires a Ph.D. or MD with interest in pharmacological studies and an emphasis on drug abuse. Under a NIH grant, research will involve work on rodent models of drug abuse and employing the techniques of PET and SPECT brain imaging. The candidate will join a large neuroscience group interested in the brain actions of cannabinoids, cocaine, methylphenidate, nicotine and other drugs of abuse. Imaging facilities include a small animal PET scanner, two clinical PET scanners, SPECT, small animal MRI and a high field clinical MRI. Candidate must be a permanent resident or U.S. citizen. For further information contact Dr. A.N. Gifford or Dr. S.J. Gatley or see the Web sites at [www.bnl.gov/medical/](http://www.bnl.gov/medical/). Medical Department.

NS2448. BUSINESS OPERATIONS MANAGER 2 (M-1) — Requires a bachelor's degree in a business discipline, MBA preferred. Substantial related Laboratory experience is preferred. Experience interacting with key business support functions such as the Budget Office, Procurement, and Human Resources is necessary. Prior supervisory experience required. Knowledge of the PeopleSoft Budget system, Labor Cost Distribution, MS Word, Excel and PowerPoint is critical and experience with the development of budget proposals for DOE and other funding agencies is helpful. Responsibilities will include budgeting, HR, procurement, property management and salary review for the Department. Chemistry Department.

NS8059. CYBER SECURITY ARCHITECT (I-9) — Requires a BS in a technical area, three years of technical experience; MS preferred. Excellent communication and customer service skills, utilizing those skills to develop strong working relationships with peers and customer groups required. Experience analyzing complex computer security issues; knowledge of hardware/software options for security system/applications; evaluation, design, implementation and troubleshooting of cyber security systems; and complete documentation necessary. Must be self-motivated, an independent worker, and possess the ability to present materials at all levels. Will act as a technical resource for multiple technologies; influence current and future application of technology architectures. Will participate in 24x7 pager coverage for security alerts. Can design and implement projects with broad support for the science mission of the Lab, specifically addressing cross-technology and cross-platform issues. Will balance needs of scientific users against requirements of the DOE, partnering with Lab management at all levels. Will provide training to the Lab's technical community, "raising the bar" of technical expertise in the organization. Information Technology Division.

NS2292. WRITER/EDITOR (A-4, term appointment/part-time 50%) — Requires a BS or equivalent and 5-7 years' experience in technical editing and writing, or related discipline; excellent interpersonal communication and team-building skills; knowledge of MS Word, MS Word-style sheets, and Excel. Will provide writing and editing support for production of technical environmental publications. Will consult with subject-matter experts to translate material describing complex technical information into reports and brochures for use by technical and nontechnical audiences. Information Services Division.

TB8347. TECHNICAL SPECIALIST (T-2) — Requires high school diploma or GED. Fully qualified Radiological Control Technician (RCT) required, which includes a minimum of three years' related experience or equivalent combination of experience, education and/or certification required. Ability to be respirator qualified is essential. Must have or be capable of attaining 40-hour HAZWOPER training. Will perform, document, and post radiological surveys and perform routine contamination and exposure surveys. Will provide field support in the area of ES&H services primarily in health physics specialty. Radiological Control Division.

Children's Swimming Lessons

The Recreation Division is offering children's swimming lessons on Saturday mornings, beginning on Saturday, March 23, at 11 a.m., and running for six consecutive Saturdays, ending on April 27. The program is open to children of all BNL employees, visitors and facility users. The fee will be \$30 for each child, plus a \$2 daily admission fee unless the child presents a season ticket.

To register, or for more information, call Susan Dwyer, Head Lifeguard, Ext. 3147 or 3496.

Volunteers Wanted

For 'Daughters to Work' Day

Volunteers are needed to form a committee to plan for this year's "Take Our Daughters to Work" day, which will be on Thursday, April 25. Contact the event's coordinator, Susan Foster, Human Resources Division, Ext. 2888 or [foster2@bnl.gov](mailto:foster2@bnl.gov).

Defensive Driving

A defensive driving course will be offered on Saturday, March 16, 9 a.m.-3:30 p.m., in Berkner Hall, Room B. To register, send a check for \$23 per person, made out to Empire Safety Council, care of Scott Zambelli, P.O. Box 670, Mount Sinai, NY 11766. Include your telephone number. Checks must be received by March 10.

Women's History Month  
Civil Rights Leader  
Amelia Robinson  
Will Lecture, 3/21

Civil rights leader Amelia Boynton Robinson, winner of the 1990 Martin Luther King Freedom Medal, will describe her struggle for racial equality and social justice in a talk to be given at noon on Thursday, March 21, in Berkner Hall. All are welcome to this free event.





# Ten-Year Sanitary System Upgrade to Be Completed in Spring

