

## Attorney General: HFBR Restart Possible If BNL Undergoes 'Radical Therapy'

In *Brookhaven National Laboratory at the Crossroads*, a report on BNL's operations released on October 17 after a 15-month investigation, New York State Attorney General Dennis Vacco announced that BNL "needs radical therapy in order to recover, both in terms of its underlying mission as well as credibility with a justly-concerned public."

Yet, if strict conditions are met, Vacco allows that the restart of the High Flux Beam Reactor (HFBR) may be considered. To achieve this goal, he "prescribes strong remedies that, I believe and hope, will bring Brookhaven back from the brink."

However, Vacco states, "I am prepared to take whatever steps necessary to keep the [HFBR] closed — permanently if necessary — until the proper steps are taken to rectify the problems."

The Attorney General's (AG) Environmental Protection Bureau first scrutinized BNL in June 1996, follow-

ing inquiries about existing contamination. After BNL's January 17, 1997, announcement of elevated levels of tritium in groundwater south of the HFBR, the AG's investigation, authorized by Governor George Pataki under New York's Executive Law, expanded to look into the circumstances surrounding the tritium leak.

As a result of the investigation, Vacco makes three primary recommendations in his report, the second of which deals directly with the HFBR: He concludes that the restart of HFBR could only be considered after "dramatically improved environmental management practices are securely in place, the causes of the tritium leak are fully understood, and measures that will prevent recurrence of the leakage are installed."

The "strict, cutting-edge environmental-management practices" that Vacco advocates in his first and second recommendations are ones "such

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## Senior Environmental Manager Joins On-Site DOE Group



Standing before BNL's High Flux Beam Reactor is John Arthur, the new Senior Environmental Manager of the on-site Brookhaven Group of the U.S. Department of Energy. — photos on this page by Roger Stoutenburgh

Providing advice and assistance regarding Brookhaven's environmental issues to Dean Helms, the Executive Manager of the on-site Brookhaven Group of the U.S. Department of Energy (DOE), W. John Arthur III has been serving as the group's Senior Environmental Manager since October 6.

Stationed on BNL's site for a minimum of three to six months, Arthur comes to the job with credentials and experience, both in government and private industry, in managing environmental restoration projects, over-

seeing waste minimization and disposal efforts, initiating program-performance improvements, and undertaking site and facilities development and future use planning.

In addition, Arthur has been cited for his determined efforts to expand community outreach and public involvement in environmental-management decision-making.

"John brings a wealth of experience and qualification to this assignment, and he is adding a fresh perspective to the issues and priorities that we are

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## 330th Brookhaven Lecture: Electron-Beam Ion Source — A Future Resource for RHIC



When BNL's Relativistic Heavy Ion Collider (RHIC) is completed in 1999, it will be the world's largest superconducting accelerator for producing high-energy collisions of heavy ions, which are the atomic nuclei of heavy elements such as gold.

Already, the ion source at the Lab's Tandem Van de Graaff facility is ready to make all the ion beam species that RHIC will need in the foreseeable future.

Since RHIC will be operating for many years, the demand for greater ion-beam intensity

### Edward Beebe

and range of ion species will increase. However, as long ago as the late 1980s, BNL's advanced ion-source planners thought ahead to supplement the Tandem's ion source with a relatively compact, low-cost, low-maintenance injector — which has resulted in the work on a BNL Electron Beam Ion Source (EBIS).

Initial EBIS work at the Lab has been done on an existing EBIS received from Sandia National Laboratory. During the next one-to-two years, experiments will be performed on a high-current test stand, now under construction, to verify scaling for a RHIC EBIS.

To explain how the source will work and describe its major advantages, Physicist Edward Beebe, an EBIS team member in the Alternating Gradient Synchrotron (AGS) Department, will give the 330th Brookhaven Lecture. Beebe's talk on "Electron Beam Ion Source: An Ion Source That Outstrips Others," will be held on Wednesday, October 29. He will be introduced by AGS Department Chairman Derek Lowenstein, at 4 p.m. in Berkner Hall.

Beebe will describe how, in EBIS, an electron beam can be used to strip electrons from target atoms, thereby creating ions. The low-charge-state ions can then be confined by electric fields, allowing further bombardment by the electron beam to create high-charge-state ions, such as positively charged gold-35.

He will explain how, for example, by controlling the electron-beam's energy, density and confinement time, the source can be tuned to produce ions of a specific charge-state — and how this versatility could be used to benefit future experiments.

Beebe will also talk about some other applications of EBIS, which include making low-cost, fully stripped light ions for tumor treatment, and accumulating ions of short-lived isotopes and multiplying their charge to a value convenient for

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## NAS Calls HFBR 'Essential Component' Of National Science Infrastructure

The following is a letter to Energy Secretary Federico Peña from Bruce Alberts, the President of the National Academy of Sciences (NAS), which is a private, nonprofit society of distinguished scientists and engineers who are dedicated to the furtherance of science and technology and their use for the general welfare. The Academy has 1,800 elected members and 300 foreign associates, including 126 Nobel laureates. Granted by the U.S. Congress in 1863, the NAS charter requires that the society advise the federal government on scientific and technical matters.

### Dear Secretary Peña:

I am writing to express my concern, which is shared by the National Research Council's Board on Physics and Astronomy, regarding the future of the High Flux Beam Reactor (HFBR) at Brookhaven National Laboratory. This facility has been an essential component of the national scientific infrastructure with a remarkable record of scientific achievement. It has provided an important source for neutron-scattering experiments in the United States. For reasons with which you are familiar, there is [at present] a dearth of such sources in the United States, [so] the loss of one would seriously constrain U.S. research in this area. The importance of this research has been documented extensively over the years in a number of National Research Council Reports . . .

The operations of the HFBR were curtailed earlier this year pending review and remediation of the environmental concerns related to groundwater contamination. In considering the complex set of issues relevant to the restart of this facility, or its possible termination, the Department of Energy has established a deliberative process involving opportunities for all interested parties to have appropriate input. Paramount among requirements for restart will be the need for highly reliable environmental protection systems for the benefit of the people of Long Island.

I believe that it is important for all parties to participate actively in the DOE process, so that a timely decision can be made which properly evaluates the benefits and risks related to the future of this important scientific resource. The National Research Council would be pleased to undertake any studies and assessments that you feel would be helpful related to the scientific and environmental issues of [the] HFBR and the future scientific need for neutron sources. We would be prepared to undertake these assessments on a fast-track process.

Sincerely,  
Bruce Alberts  
President  
National Academy of Sciences



## Transcending Countries' National Interests In Developing International Megascience Projects

To discuss expanding international involvement in developing experiments for the world's high-energy heavy-ion colliders, some 30 nuclear physicists met at BNL this August, as part of a nuclear physics working group sponsored by the Megascience Forum of the Organization of Economic Cooperation & Development (OECD).

Founded in 1948 as the Organization of Economic Cooperation in Europe to administer the Marshall Plan, OECD is headquartered in Paris, France, and took its present name in 1960, when the U.S. and Canada became two of its 29 member nations. An OECD project, the Megascience Forum was established so that the need for international cooperation in the development of large scientific facilities that cannot be built by one country alone could be considered by OECD member countries.

Under the auspices of the Forum's nuclear physics working group, the meeting at BNL took place, to focus on international participation in heavy-ion experiments for the U.S.'s Relativistic Heavy Ion Collider (RHIC), now under construction at BNL, and Europe's proposed Large Hadron Collider (LHC) for the CERN laboratory in Switzerland. Participants in the working group included representatives from CERN and the Czech Republic, Denmark, France, Germany, Italy, Japan, Sweden and the U.S. The leaders of the collaborations building RHIC's detectors and CERN's ALICE heavy-ion detector were among the participants.

According to BNL's Tom Ludlam,



**At the August meeting of the Organization of Economic Cooperation & Development's Megascience Forum's nuclear physics working group are some of the official delegates from member countries: (from left) France's Hubert Flocard of IN2P3 Institute in Paris; Germany's Peter Braun-Munzinger of GSI Laboratory in Darmstadt; Italy's Ludovico Riccati of the University of Turin; working group coorganizer Tom Ludlam, BNL; U.S. Delegate to the OECD Megascience Forum David Hendrie, Head of the Nuclear Physics Division of the Office of High Energy & Nuclear Physics, U.S. Department of Energy; Sweden's Ingvar Otterlund of Lund University; Japan's Yasuo Miake of the University of Tsukuba; and coorganizer Jurgen Schukraft of CERN, who is also spokesman for the ALICE experiment at the Large Hadron Collider.**

who is Associate RHIC Project Head for Experiments and one of the meeting's two organizers, while international competition in particle physics research using high-energy accelerators and colliders has been healthy for that field, the smaller field of nuclear physicists working at high-energy machines necessitates more

cooperation among them for developing their heavy-ion experiments.

Therefore, Ludlam says, it would at present benefit high-energy heavy-ion physics if more Europeans could become involved in the two large and two small experiments now being built for RHIC, and if more U.S. and Japanese researchers could participate in

### Coming Up

The cello-piano duo, Timothy Eddy and Gilbert Kalish, will play music by Ferruccio Busoni, Benjamin Britten, Astor Piazzola and Johannes Brahms on Thursday, November 6, at 8 p.m. in Berkner Hall. This BERA concert is open to the public, and admission will be charged.

building the ALICE detector now being planned for heavy-ion experiments at the LHC. For instance, since LHC is planned to begin operating at least six years after RHIC comes on line in 1999, Europeans working on RHIC's large PHENIX or STAR detectors would gain knowledge and experience that could then be applied to CERN's ALICE.

As impediments to be overcome, funding limitations and each country's interest in developing its own facilities before investing in those of another country were discussed by the meeting's participants.

For instance, in the U.S., "Our prospects are limited now because we have committed all of our resources to finishing, commissioning and using RHIC," says Ludlam. "But, in 2002, after the first couple of years of data taking, we would not only be interested in upgrading our detectors and having other countries participate in that, but also taking a leadership role in the ALICE collaboration."

While solutions were not proposed, "We at least got the problems on the table," concludes Ludlam. Discussions will continue among panel members at the Quark Matter '97 meeting in Japan this December.

— Marsha Belford

### John Arthur

cont'd.)

addressing," says Helms.

According to Energy Secretary Federico Peña, DOE had been seeking "a well-qualified individual, in a Federal position at the Department's Brookhaven site office, to do . . . important environmental and community functions," when U.S. Senator Alfonse D'Amato and Representative Michael Forbes wrote to him last July.

At the time, they noted: "In light of recent events, it is absolutely imperative that you appoint a full-time environmental manager for Brookhaven — an expert who can operate outside the AUI bureaucracy and identify potential problems. Equally important, this person could keep community members informed and address their concerns regarding existing degradations."

Arthur is on leave from DOE's Albuquerque Operations Office, where he has been stationed since 1991 and which oversees DOE facilities in Colorado, Florida, Missouri, New Mexico and Texas.

As the Assistant Manager in charge of Albuquerque's Office of Environmental/Project Management, Arthur was responsible for managing some 3,500 environmental-restoration sites in those five states, including 24 inactive milling sites containing uranium tailings, and for supervising some 125 federal employees. In addition to overseeing the cleanup of hazardous, radioactive and mixed waste and environmental contamination that had resulted from past DOE practices, Arthur has been active in implementing programs to prevent further pollution and to minimize the waste produced by today's operations.

"Albuquerque oversees some of DOE's defense-programs facilities, for instance Los Alamos and Sandia National Laboratories," the new Senior Environmental Manager explains. So,

though the environmental problems at those labs and at BNL originated during the same era, "They are of a very different origin and severity from those here at Brookhaven." Regardless, Arthur agrees that the public and politicians often do not distinguish between the kinds of DOE operations that have produced environmental contamination, especially if it involves radiation.

At Brookhaven, "My job is to support the DOE team on site as a consultant and advisor, to help them allocate and focus resources on this site's very specific environmental problems and their solutions," says Arthur.

Upon his arrival on site, Arthur was charged with several tasks, in order of priority: First, he is to assure that complete reviews and characterizations of any potential BNL environmental-release points have been undertaken. Second, he was asked to make sure that any interim or voluntary environmental corrective actions have been taken so as to eliminate further contamination and/or the source of contamination.

Regarding his first and second charges, Arthur is making sure that all the steps in DOE's Action Plan (see Brookhaven Bulletin of June 13) are followed through to completion and that the 21 findings of the first phase of the Lab's site-wide Facilities Review (see Brookhaven Bulletin of September 12) are acted upon, "to make sure that all action is taken on all the items, that nothing whatsoever falls between the cracks," he explains.

After studying the review process and the first of its two reports issued so far, he found the facilities review to be an efficient and effective approach to identifying any previously undocumented potential sources of environmental contamination: The review, Arthur says, resulted in "a very thorough walk-through of the highest priority facilities on this site from an

environmental-vulnerability standpoint."

Third, to help start the work involved in gathering information and preparing the Environmental Impact Statement (EIS) for the High Flux Beam Reactor (HFBR), a process which is to begin on November 1 and extend through the end of 1998, Arthur will support planning for implementation of the National Environmental Policy Act. "DOE has been planning an EIS for the HFBR, but, as a result of the appropriations' bill [containing funding for BNL], our schedule has been accelerated," he comments.

As his fourth priority, Arthur is lending support during BNL's contractor transition, to ensure that the new contractor sets up an environment, safety and health management structure so that any ongoing corrective actions may be completed, and that emphasis on environmental management and community involvement can be maintained.

Fifth, the new Senior Environmental Manager is to support the U.S. Environmental Protection Agency's (EPA) three-phase survey of the site, which was undertaken at Peña's request to ensure BNL's compliance with environmental laws and regulations. The first phase of the survey was performed by EPA and found some violations, none of which was deemed serious (see Brookhaven Bulletin of July 18). The second and third phases will focus, respectively, on facility processes and management systems.

Finally, Arthur has been requested to make recommendations on how BNL can increase community outreach and public involvement in overseeing its operations and, specifically, to support the establishment of a citizen's advisory board.

"The Lab has been very up-front about its environmental findings by announcing all its findings, but every issue that the Lab has come up against

in the immediate past has made big news and had political consequences," observes Arthur.

He continued, "Though I can't say when, we will exit this reactive phase and enter a more proactive phase, by which time more structure and processes should be in place for solving the existing problems, the Environmental Impact Statement [for the HFBR] should be under way and the transition to a new contractor should have started. At that point, I do believe that the Lab will be on a better footing, so the public will more reassured and more ready to listen to the facts and participate in the process."

W. John Arthur III holds a 1975 bachelor of science in wildlife management and a 1977 master of science in radioecology and health physics, both from Colorado State University. After serving as a radiocologist at DOE's Idaho Operations Office, 1977-83, he was first the Environmental & Licensing Manager, 1983-86, and then the Project Manager at DOE's uranium mill-tailing remedial action project to clean up 24 inactive mill-tailing sites and 4,000 adjacent properties in ten states and on two Native American tribal lands.

From 1988 to 1990, Arthur first managed the supplemental EIS project for the federal government's first nuclear repository, the Waste Isolation Pilot Plant (WIPP), in New Mexico, and then served as the plant's Acting Project Manager. He left government service in 1990, to work for two years as the Director of western operations of ChemNuclear Environmental Services, a radioactive and hazardous-waste disposal company. Arthur returned to DOE in 1991, as the Project Director of WIPP's Project Integration Office. He is the author of over 30 technical publications and has served on international working groups concerned with waste management and nuclear safety. — Marsha Belford

## Two Events Focus On Pine Barrens

### BNL to Host Research Forum

The second annual Pine Barrens Research Forum — a cooperative effort among Suffolk County's Pine Barrens Commission, the Long Island Groundwater Institute and BNL — will be held on site next Thursday, October 30, from 8:30 a.m. to 5 p.m., in Berkner Hall.

After opening remarks from BNL Interim Director Peter Bond and Suffolk County Executive Robert Gaffney, environmental scientists from Long Island and the Northeast will discuss the latest research results on post-wildfire recovery and exchange other ecological and geological findings on the pine barrens of Long Island, Cape Cod, New Jersey and the Connecticut River Valley. For the full forum agenda, see the back of the Weekly Calendar.

The forum will be followed on Friday, October 31, from 8:30 a.m. to 12:30 p.m., with a field trip to examine pine barrens areas on the 5,300-acre BNL site, as well as an area of the Rocky Point Natural Resources Management Area, managed by the New York State Department of Environmental Conservation. Due to limited bus space, anyone wishing to go on the field trip should call 632-9780 to reserve a seat.

### Discovery Day Postponed

To allow more time to generate public interest and participation in the Pine Barrens Discovery Day at Suffolk Community College's Eastern Campus, the event's Steering Committee has postponed the day from Saturday, October 25, until next year — tentatively, Saturday, April 25, 1998.

## HFBR Forum on 10/30

The third information session regarding the decision-making process that the U.S. Department of Energy is undertaking to determine the future of the High Flux Beam Reactor (HFBR) will be held on Thursday, October 30, at the Shoreham-Wading River Library on Route 25A. All are invited, and comment cards will be available for community input.

## Amateur Radio

The BERA Amateur Radio Club will next meet at noon on Thursday, October 30, in Room D, Berkner Hall. Membership fees are due at this time. All BERA members and licensed amateur-radio operators are invited. For more information, call Chris Neuberger, Ext. 4160, or Nick Franco, Ext. 5467.

## Arrivals & Departures

### Arrivals

**John E. Riordan**.....RHIC

### Departures

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

**Anne P. Earl**.....Financial Services  
**Malini M. Gupta**.....Biology  
**Hyun-Sook Kim**.....Applied Science  
**Henry Lewis**.....Plant Eng.  
**Lu Ann Lewis**.....Admin. Support

## 1997-98 Brookhaven Lectures

Since research in so many diverse fields takes place at BNL and everyone is busy with their own research, people working in one area may have little opportunity to learn what is happening in another.

Such an opportunity, however, is provided by the Brookhaven Lecture Series. Founded in 1960, the series is overseen by the Brookhaven Lecture Committee, currently chaired by Robert Crease, Director's Office, with Thomas Koetzle, Chemistry Department, serving as secretary.

With the exception of the lecture on Monday, November 24, all lectures in the 1997-98 series, listed below, will be held on Wednesdays. All talks will start at 4 p.m. in Berkner Hall.

Date	Speaker, Department	Subject
Nov. 24	Peter Daum, Applied Science	Tropospheric Ozone
Dec. 17	Klaus Kinder-Geiger, Physics	RHIC Theory
Jan. 21	Robert Crease, Director's Office	BNL History
Feb. 25	Sonja Haber, Advanced Technology	Organizational Performance
Mar. 25	Yannis Semertzidis, Physics	Axion Searches
Apr. 22	Paul Freimuth, Biology	Adenovirus Receptor
May 27	Arthur Sedlacek, Advanced Technology	Atmospheric Species Detection
Jun. 17	Suh-Urk Chung, Physics	Exotic Meson Discovery

More information on upcoming lectures will be published in future Bulletins. Brookhaven Lectures are recorded on audio- and videotape, which employees may borrow from the Research Library, Bldg. 477.

### BNL Lecture (cont'd.)

injection into an accelerator.

Edward Beebe received his Ph.D. in nuclear science in 1990 from Cornell University, where he had earlier earned his B.S. and M. Eng. in applied and engineering physics.

For the next four years, he was a researcher at the Manne Siegbahn Institute in Stockholm, Sweden, working on an EBIS source for injecting highly charged ions into a synchrotron-storage cooling ring for atomic physics experiments.

In 1994, he came to BNL as an assistant physicist, becoming an associate physicist in 1996 and a physicist in 1997.

After the lecture, all are invited to

join Beebe for discussion and refreshments. Those wishing to dine with the speaker at a restaurant off site may call Mary Campbell, Ext. 4776, before noon on Wednesday, October 29.

### Equipment Demo

On Thursday, October 30, from 10 a.m. to 3 p.m. in Berkner Hall, Exphil Calibration Labs will demonstrate test equipment manufactured by AEMC, Amprobe, Fluke, Iwatsu, Rustrek and Tektronix. Product specialists will be available to discuss applications and technical questions.

For more information, call Gary Kruger, 563-3520.

### Outreach Workshop

## Coping With Workplace Uncertainties

With a new contractor on the horizon, the future of the High Flux Beam Reactor a question mark, and some efforts afoot to shut the Lab down, BNLers can write the book on uncertainties in the workplace.

To help everyone cope with the emotionally uncomfortable state that all this bad news has generated, "Coping With Uncertainties in the Workplace" will be discussed at the next Outreach workshop. Sponsored by the Employee Assistance Program of the Occupational Medicine Clinic, this talk will be given by clinical psychologist Katia Moritz at noon on Tuesday, October 28, in Berkner Hall. The Lab community is invited.

Moritz will talk about how to manage immediate stress and how to develop long-lasting personal qualities, such as the ability to reframe situations and to restructure what she calls chain thinking, that can help in coping with uncertainty and in becoming more flexible in situations beyond your control. In addition, she will discuss taking concrete measures, such as straightening your finances and making yourself more marketable, so you can be more resilient in case of the worst.

Katia Moritz, M.A., expects to receive a Ph.D. in psychology from Hofstra University this December. Since 1990, she has been licensed to practice clinical psychology and, in 1992, received her certification in rational-emotive therapy.

## Healthline, Outreach Announce Fall Lecture, Workshop Schedule

Five lunchtime presentations have been scheduled for the Healthline lecture series of the Health Promotion Program and the Outreach workshop series of the Employee Assistance Program. Including next Tuesday's workshop (see announcement above) and one on coping with workplace transition held on October 15, these Outreach workshops are a series designed to help employees cope with the stress of these uncertain times at the Lab.

Date	Series: topic	Speaker
Tue., 11/4	Healthline: Choosing an Exercise Program	Laura Tiplado
Wed., 11/19	Healthline: Money Matters Update	George Roach, Esq.
Tue., 12/2	Outreach: Workplace Stress	Cheryl Kurash, Ph.D.
Tue., 12/9	Outreach: Crisis at Work	Diana Richman, Ph.D.

Under the auspices of the Occupational Medicine Clinic, the Healthline series presents talks on topics related to healthy living, while Outreach offers discussions of psychological issues and social problems. See future issues of the Bulletin for details on each presentation, or, for general information, call Ext. 5923 about Healthline lectures or Ext. 4567 about Outreach workshops.

## For the Record

The map of "U.S. Nuclear Weapons Sites" that appeared on page 10A of *U.S. Today* on Wednesday, October 22, 1997, has at least one serious error: It shows Brookhaven National Laboratory as one of those weapons sites. For the record, BNL is neither a nuclear-weapons laboratory, plant nor storage site. In fact, the defense-related work done at BNL primarily involves programs working toward non-proliferation and the safeguarding of nuclear materials.

## In Addition

As was mentioned in last week's story "Agency Concludes: No Adverse Health Effects From Groundwater Contamination Near BNL," the federal Agency for Toxic Substances & Disease Registry has concluded that radium-226 found in Lab monitoring wells is below the drinking water standard.

As Gary Schroeder of BNL's Safety & Environmental Protection Division has since pointed out, radium-226 is naturally occurring and, as a product of uranium decay, is a precursor to radon. As a result, radium-226 can be found in drinking-water supplies throughout the world.

Radium-226 has not been and is not now produced by any BNL operations. It is, however, generated artificially during uranium milling.

## LIANS Meeting

At the next meeting of the Long Island Section of the American Nuclear Society (LIANS), Richard Hahn of BNL's Chemistry Department will speak on the "Why and How of Solar Neutrino Research." To be held on Thursday, October 30, at the Three Village Inn at Stony Brook, Hahn's talk will cover his involvement in two solar-neutrino experiments — GALLEX in Italy and SNO in Canada.

His talk at 8 p.m. will be preceded by cocktails at 6 p.m. and dinner at 7 p.m. The cost is \$23 for LIANS members and their spouses, and \$24 for other attendees. To make reservations, contact Ken White, Ext. 4423.

### Vacco Report (cont'd.)

as the state-of-the-art ISO 14000 standards established by the International Standards Organization."

Vacco also recommends that BNL must "go beyond its boundaries to demonstrate its commitment to the health and environment of Long Island."

Specifically, he suggests that the U.S. Department of Energy (DOE), undertake three actions: first, sponsor an early-detection cancer-screening program in Suffolk County; second, buy environmentally sensitive land in the Pine Barrens; and, third, fund a new environmental cleanup and monitoring unit of the Suffolk County Department of Health Services.

Vacco calls for these "concrete actions by BNL to demonstrate that it has truly undertaken a new and better approach toward matters of environment, health, and safety."

Vacco further comments: "While the decision to demand a higher level of conduct from the next contractor should be commended, the past failures at BNL are failures of both a system and a culture that have not adapted to the demands of modern environmental standards. . . . DOE must correct the systemic deficiencies and transform the organizational culture to engage the full participation of every Lab employee and manager in carrying out the mandate to protect the environment."

The AG's full report is on the World Wide Web at [http://www.oag.state.ny.us/press/oct97/oct17\\_97.html](http://www.oag.state.ny.us/press/oct97/oct17_97.html).

## BROOKHAVEN BULLETIN

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## Computing Corner

*The Computing & Communications Division (CCD) is offering the following training classes, which are scheduled based on the number of request forms received. To obtain a training request form, see your training coordinator, or call Julie Pergan, Ext. 4144.*

### PC Training

A few seats remain in the following classes:

date	course
10/24, 28, 29	Intro. to Visual Basic 5*
10/27	int. EXCEL
11/3, 5, 7	Intro. to Visual Basic 5*
11/6	beg. Word
11/12	moving up to Windows '95
11/14	int. Word
11/17	Intro. to PowerPoint
11/18, 19	int. ACCESS
11/20, 21	Intro. to ACCESS

Call Pam Mansfield, Ext. 7286, for information on classes marked with an asterisk. To register for all other classes, please submit a training request form.

### LabVIEW

To register interest in LabVIEW training, contact Mansfield, Ext. 7286.

## A Better You! Starts 11/3

The start of the weight-loss program "A Better You!" has been scheduled on Monday, November 3.

It will meet Mondays from noon to 1 p.m. for ten weeks, offering participants consultation with a dietitian or nutritionist to customize their program, and provide healthy cooking techniques, dining-out strategies, food-shopping tips, exercise approaches, stress-reduction hints and more.

The per-person cost is \$140. For more information or to register, call Mary Wood, Health Promotion Specialist, Ext. 5923.

## IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, October 27, at 6 p.m., in the Knights of Columbus Hall, Railroad Avenue, Patchogue. There will be a meeting for shift workers at 3 p.m. at the union office. The agenda includes regular business, committee reports and the president's report.

## BWIS Wine & Cheese Postponed to Monday

Brookhaven Women in Science (BWIS) has postponed its Wine & Cheese Party from this evening to Monday, October 27, from 5:15 to 7 p.m. in the Recreation Building in the apartment area.

All prospective members — women and men — are invited to this free, informal get-together. For more information, call Gail Schuman, Ext 7985, or e-mail [schuman1@bnl.gov](mailto:schuman1@bnl.gov).

## Bowling

### Purple & White League

10/9: R. Eggert 254/226/208/688 scratch series, A. Warkentien 222/194/185/601 scratch, B. Tozzie 222/182, J. Zebuda 222, B. Mullany 197/188, N. Besemer 186/185, T. Mehl 172/171, P. Manzella 206/172, R. Raynis 231, J. McCarthy 211, P. Wynkoop 204, S. Logan 196, M. Guacci 194, P. Callegari 187, J. Pinelli 186, S. Reynolds 182, J. Addressi 181, F. Simes 170.

### Red & Green League

10/14: R. Mulderig, Sr. 226/223/644 scratch series, R. Eggert 224/202/606 scratch, E. Larsen 217/202/613 scratch, W. Powell 257/625 scratch, R. Mulderig Jr. 247, K. Loebel 238, K. Asselta 231, S. Logan 225, E. Meier 225, O. Mirjah 222, E. Sperry III 220, N. Besemer 212, J. Mayeski 203, D. Schiappa 201, J. LaBounty 200.

## BERA NYC Bus Trip

Join BERA's "Do Your Own Thing!" bus trip to New York City on Saturday, December 6. By joining this trip, you can start your holiday season with a visit to the famous tree at Rockefeller Center, a skate at the Rockefeller ice rink, a view of the decorations at F.A.O. Schwarz and Tiffany's — or the spectacle of a Broadway show.

The bus will leave the Brookhaven Center, Bldg. 30, promptly at 9 a.m. and leave the city at 6 p.m., dropping off and picking up passengers at Rockefeller Center, at Fifth Avenue and 50th Street. The cost will be \$17 per person. For reservations or information, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

## FEW Attendees To Share With All

Last July, 11 BNL women staff attended the 28th annual National Training Program, in Dallas, Texas, sponsored by the National Organization of Federally Employed Women (FEW).

To share their experiences at the FEW program of seminars on career management, technology, and family and health issues, the attendees will hold a discussion on Wednesday, October 29, at noon, in Room A, Berkner Hall. All are invited; bring your own lunch.

## Medical & Dental Plans Deadline Next Friday

Friday, October 31, is the deadline for making changes to medical and/or dental coverages for 1998. Forms can be obtained from the Benefits Office, Human Resources Division, Bldg. 185.

## Evacuation Drill This Afternoon

An evacuation drill is planned for BNL for today, Friday, October 24, in the late afternoon.

The main purpose of the drill is to demonstrate the Laboratory's ability to evacuate personnel in the event of an emergency.

Therefore, everyone is asked to cooperate by waiting for the various site-wide signals before moving on to the next phase of the drill.

Signals are described on the back of the BNL phone book. The drill will start with a continuous sounding of site sirens for five minutes — a signal that everyone should proceed to appropriate building assembly areas to await further instructions.

At that point, Plectrans will advise parents of children at BNL's Child Development Center (CDC) to meet their young ones there. If other people decide to evacuate prematurely, Emergency Services Manager Frank Marotta says that this could interfere with the flow of traffic to and from the CDC.

Site-wide evacuation should not begin until directed to do so via the Plectrans radios.

Since Daylight Saving Time does not begin until 2 a.m. this Sunday, October 26, the drill is expected to be completed entirely in daylight, and people should be able to return to the Laboratory as planned for any after-hours activities.

For more information, call Frank Marotta, Ext. 4273, or Ken Krasner, Ext. 2563.

## 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 JOBLINE, Ext. 7744 (344-7744), for a complete list of all job openings; use a TDD system to access job information by calling (516) 344-6018; or access current job openings on the World Wide Web at <http://www.bnl.gov/JOBS/jobs.html>.

### LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD4070 INSULATION WORKER - Under general supervision, performs installation and removal of insulation and protective coverings about piping, ductwork, fixtures and devices as required. Performs limited removal, cleanup and disposal of asbestos insulation, in accordance with applicable regulations governing BNL. Will be trained and must be certified as asbestos-abatement worker to standards as adopted for such work by New York State. Plant Engineering Division.

### OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

DD3140. DRAFTING POSITION - (term appointment) Requires an AAS degree or equivalent capabilities, with significant experience in printed-circuit board design using PCAD and AutoCAD software. Proficiency in Accel EDA software desired. Excellent communication skills are also required. RHIC Project.

DD4774. TECHNICAL POSITION - Requires an AAS degree in electronic technology, BSET preferred, or significant relevant experience with high-voltage power supplies and/or radio frequency electronics. Will assemble, test and troubleshoot electronic circuits. Must be able to work from schematics, sketches, and verbal instructions. May be required to work call-in hours as needed. Alternating Gradient Synchrotron Department.

DD4773. ENGINEERING POSITION - Requires a BS in electrical engineering or equivalent and several years' experience in the design of radio frequency up to 200 MHz, and analog and digital electronics. Must be experienced in the use of laboratory test equipment. Knowledge of Altera FPGAs and Pspice is desired. Alternating Gradient Synchrotron Department.

# ISM: 'Program of the Month' or Time-Tested Techniques?

## Integrated Safety Management — The Meaning and the Message

With all the trendy new programs in management training over the past five years — providing lots of material for the creators of "Dilbert" and giving the rest of us grief — we've all been conditioned to be cynical about the latest and greatest new program that is going to solve all of our problems.

So, perhaps this has been your reaction to Integrated Safety Management (ISM) — a program that we've been hearing about for some time now and that some of us have been trained in. But what does it mean?

Over the past two years, the U.S. Department of Energy (DOE) has surveyed practices at public and private organizations with safety performance records that put them on top nationally. DOE captured their common practices in the form of ISM's seven "guiding principles" and five "core functions."

The guiding principles — the fundamental policies that guide an organization's safety program — are: line-management responsibility for safety; clear roles and responsibilities implemented; competence commensurate with responsibilities; balanced priorities; identification of safety standards and requirements; hazard controls tailored to work being performed; and operations authorization.

While there's not enough space here to explain what each of these principles specifically involves, it's important to know that BNL has many of these principles in place and has had for some time.

In its April 1997 report, the DOE team that conducted an ISM Evaluation of BNL determined: "The level of competence, particularly within [DOE's Brookhaven Group] and BNL, . . . to be adequate in supporting safety management at the Laboratory."

So while BNL got an "effective performance" rating for "competence commensurate with responsibilities" the team gave us "needs improvement" in four other guiding principles and noted "significant weakness" in the other two.

Our response has been the Management Systems Improvement Program (MSIP), the vehicle by which we're putting these improvements in place.

The five core functions describe the steps to take in doing work safely and are often represented in a circle, like the one above.



What this boils down to is: If we get in the habit of applying the principles of ISM, safety and environmental protection will become a routine part of our work. We'll avoid the avoidable injuries both to ourselves and our environment.

ISM means we each accept responsibility for planning the job beforehand; getting safety professionals involved during planning, instead of at the last minute; doing it safely and according to plan; and being accountable for its success or failure. ISM may also mean asking whether you're the right person to do the job — do you have the right training?

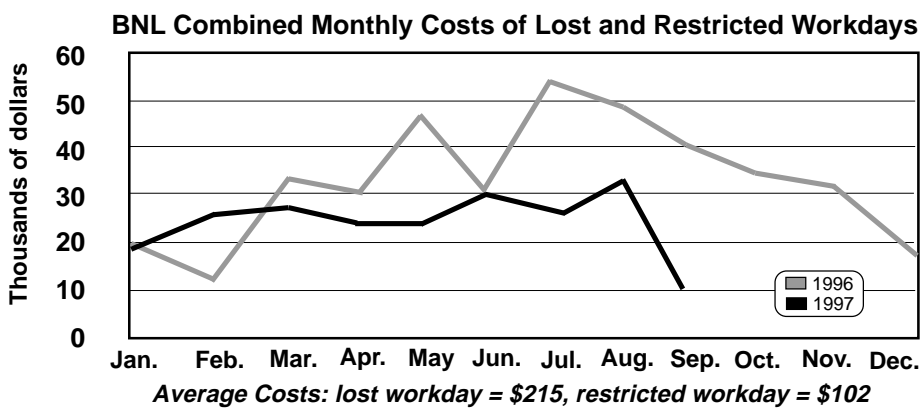
ISM means everyone's committed to safety: Employees won't endanger themselves, their friends or coworkers; they'll think before they act; and they won't be afraid to go to management if things are not being done the right way.

And managers have an equally strong commitment to assuring employees' safety: They'll help plan the work, watch to make sure it's done safely, take employees' suggestions for improvement seriously, and provide constructive criticism if employees don't perform correctly.

In other words, ISM means we will have better communication at all levels — without jargon, without slogans. That's how we'll bring the number of preventable accidents and injuries at BNL down near zero and achieve excellence in safety. As I said last month, I don't want people getting hurt. The numbers matter, but people matter more. Our goal is achieved when everyone who comes to work here in the morning goes home at night to family or friends in the same shape (or better, given the number of joggers I see).

We are better than many in industry, but not as good as the leaders. We can and will do better. We can take techniques that have been proven successful elsewhere, adapt them to BNL and then watch our progress together, month by month.

— Mike Bebon, Interim BNL Deputy Director



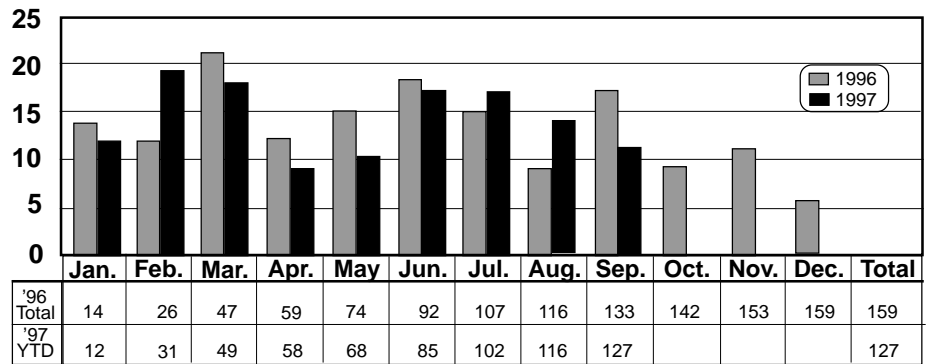
## Deer Figure in September Traffic Accidents

Two traffic accidents occurred on site in September. This was the fewest in one month for the past year, but both accidents involved deer.

In one accident, an employee was driving past BNL woodlands when a young deer darted out from behind a small building and struck the driver's door; in the other, an employee driving west on Rutherford Drive struck a deer crossing the road. Both accidents resulted in the death of the deer and minor damage to the vehicles.

BNLers have always been cautioned to be wary of deer at this time of year, but the problem has also been exacerbated lately because, with forests now being cleared on the west side of William Floyd Parkway across from BNL, many deer have been seeking refuge on the Lab site. Because the new deer are not accustomed to vehicles and other human activities in their environment, they are especially skittish.

BNL OSHA Recordable Cases



During September, 30 occupational injuries and illnesses were reported to BNL's Occupational Medicine Clinic. Of those, the 11 described below were OSHA-recordable because they met the requirements for being reported to the U.S. Occupational Safety & Health Administration. The OSHA-recordable injuries do not include first-aid cases, injuries to non-employees (6), or athletic or recreational injuries (5).

September's reportable injuries translated to a rate of 3.5 per 100 workers — somewhat lower than the yearly rate to date of 4.16 for calendar year 1997 and 4.3 for all of calendar year 1996.

Below are the injuries incurred during September, along with measures that might have prevented them. But hindsight is easy. As Integrated Safety Management stresses (see essay at left), the best solution is to prevent accidents before they occur. If you need help identifying and preventing hazards, see your Safety & Environmental Protection (SEP) Division Representative or ES&H Coordinator.

### • Six sprains/strains —

- Two employees exacerbated preexisting back problems, one while lifting coils of wire from the back of a pickup truck, the other while moving equipment; **result:** no lost workdays.

- An employee's back was twisted while the worker was carrying and pouring liquid from a five-gallon container; **result:** 12 lost, 9 restricted workdays to date.

☛ **Prevention:** All three cases above could have been prevented by paying attention to proper lifting techniques, getting assistance and/or using mechanical lifting equipment. **SEP offers a "Back Safety" class.\***

- A worker's chronic neck strain was aggravated by prolonged computer operations; **result:** no lost workdays.

☛ **Prevention:** Even with proper workstation setup, repetitive motion can cause problems. Frequent breaks, proper lighting and preventive exercise can help. **SEP offers a "Video Display Terminal Safety" class.\***

- While getting down from a forklift, a person suffered a twisted ankle; **result:** 5 restricted workdays.

- A worker slipped while removing fixtures and suffered a back injury; **result:** 4 lost workdays.

☛ **Prevention:** Slips, trips and falls account for most lost and restricted time accidents in the U.S. Be aware of your surroundings, even while doing simple tasks such as walking, especially in areas that are uneven or slippery.

### • Three cuts —

- An employee received sutures to the forearm after getting cut by metal strapping; **result:** no lost time.

- A worker's fingers were pinched against a support; **result:** no lost time.

- One individual needed sutures to close a wound received while trying to remove a tool from a machine; **result:** no lost time.

☛ **Prevention:** More attention to details and use of personnel protective equipment could have prevented these injuries.

### • Two deep bruises —

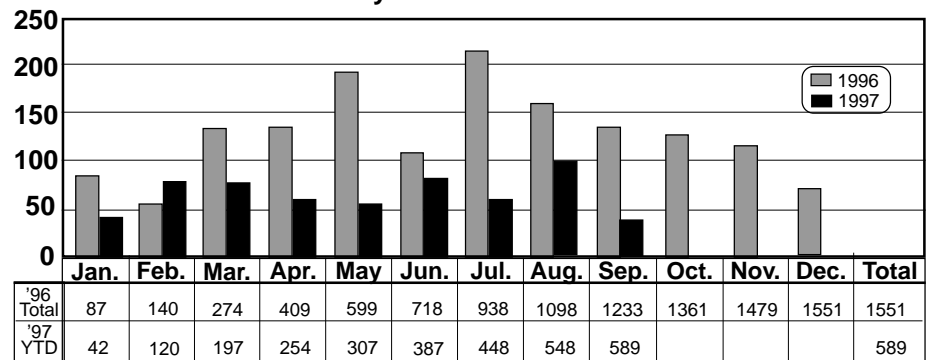
- A cylinder fell on a worker's thigh and leg when the employee slipped while moving the cylinder along an outdoor gravel pathway; **result:** 5 lost workdays.

- An employee bent over to pick up a piece of paper, striking his head on a table; **result:** 20 lost workdays to date.

☛ **Prevention:** While more attention to the work environment may have prevented both injuries, a contributing factor to the cylinder accident was the uneven walking surface. Using a cylinder cart to transport may have helped.

\*To register, see your training coordinator or call Ext. 4151.

BNL Actual Lost Workdays



Some data for September may be the result of injuries/illnesses initiated in a previous month.

BNL Actual Restricted Workdays

