

## Wirick Chairs Environmental Sciences Department

Creighton Wirick, an oceanographer who had joined BNL in 1976, has been named head of the Laboratory's Environmental Sciences (ES) Department, effective September 15. The ES Department, which has a staff of 80 and an annual budget of about \$20 million, succeeds the Laboratory's Department of Applied Science, which has disbanded.

The new department consists of: the Atmospheric Sciences Division, which studies atmospheric pollutants and the effect of aerosols on global climate; the Earth Systems Science Division, which conducts research aimed at understanding the Earth's biogeochemical cycles and climate; the Environmental Research and Technology Division, which consolidates scientific efforts to understand and characterize waste containing radionuclides, toxic metals, and chemicals; and the Scientific Information Systems Group, which provides technical support to several of the U.S. Department of Energy's (DOE) global change programs.

"The Environmental Research and Technology Division is new," Wirick said. "Its primary mission is to investigate and develop environmental technologies for cleaning up DOE sites." He continues, "Other new initiatives in the Department include studies of the environmental and health effects of tropospheric aerosols, and a collaboration with BNL's Biology Department, to study the genetics of microbes to determine which might be best used for environmental cleanup. Also, we hope to form a partnership with the Laboratory's National Syn-

chrotron Light Source, to develop new technologies for environmental cleanup of soils at DOE sites."

"My goal is to encourage interdisciplinary research among scientists and engineers, and to develop an agile, versatile workforce to best meet DOE's needs," Wirick added.

Born in Utah, Wirick earned a B.S. in 1970 and an M.S. in 1972, both in biology from the University of Utah. He earned a Ph.D. in oceanography from the University of Washington in 1981.

In 1976, Wirick joined Brookhaven as a junior research associate in the Oceanographic Sciences Division. He served as head of Meteorological Services in 1991-92, and then became division head of the Oceanographic & Atmospheric Sciences Division in 1993, a position he held until that division was closed in 1997.

Wirick has been a member of research teams on numerous oceanographic research cruises, and he has made important contributions to research to determine the cause of Long Island's brown tide. This year, he served as acting chair of the Department of Applied Science, and later, interim chair of the ES Department.

— Diane Greenberg



BNL's new Environmental Sciences Department Chair Creighton Wirick is pictured with a Texas 2000 Air Quality Study press kit. BNL's Atmospheric Sciences Division is one of the research groups participating in the Texas 2000 Air Quality Study (see the Bulletin, September 22, 2000).

## Lab Releases 1999 Environmental Report

Improved environmental management systems, continued pollution-prevention initiatives, and environmental cleanup advances are among the highlights of BNL's 1999 Site Environmental Report (SER). The document can be found on the Internet at [www.esh.bnl.gov/esd/ser.htm](http://www.esh.bnl.gov/esd/ser.htm).

The SER is prepared annually to summarize the status of BNL's environmental programs and performance, including the steady progress toward cleaning up the site and fully integrating environmental stewardship into all facets of BNL's mission. These

cleanup and integration efforts are major commitments for the Laboratory.

"This is the best Site Environmental Report ever, and its timeliness makes it even more valuable," says Laboratory Director John Marburger. "The new organization makes it easy to find things, and fun to browse. It will help get our message across to the community, regulators, and elected officials."

BNL maintains a comprehensive environmental monitoring program to ensure protection of human health and the environment. This program

monitors potential pathways of exposure, measures potential environmental impacts from Laboratory operations, and provides data to evaluate compliance with applicable regulatory and permit limits. Environmental program highlights from 1999 include the following:

- BNL continued to develop and implement procedures and management systems to ensure that it operates in a safe and environmentally responsible manner. BNL's programs are consistent with federal, state, and local environmental requirements and with the International Organization for

Standardization (ISO) 14001 environmental management system standards, with increased emphasis in the areas of compliance assurance, pollution prevention, and community outreach. In 1999, the Relativistic Heavy Ion Collider became the first U.S. Department of Energy national laboratory organization and first Long Island-based facility to achieve this level of recognition. Eight additional BNL organizations were registered this October, and the entire Laboratory is scheduled for registration by the end of 2001.

- BNL continued implementing pollution-prevention and recycling programs, as well as conservation initiatives, thus significantly reducing waste management costs. In 1999 alone, these efforts saved over \$1.6 million and reduced, recycled, or reused over 16 million pounds of materials (including the conserving of more than 12 million pounds of water).

- The maximum credible radiation dose to the public due to Laboratory air emissions was 0.13 millirem (mrem) in 1999, less than 0.05 percent of the average background level of natural radiation and well below the 10-millirem limit set by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act. This dose is calculated for a hypothetical individual residing at the Laboratory boundary 24 hours a day for

(continued on page 3)



Some of the writers and contributors responsible for compiling BNL's 1999 Site Environmental Report.

## FY01 Budget Projection

About 90 percent of BNL's DOE budget, which funds about 85 percent of BNL programs, is contained within the Energy and Water Development Act. As BNL Director John Marburger commented in his all-hands meeting on October 2 (see the Bulletin, October 6, 2000) that appropriations bill is close to final approval and reflects what is essentially the President's budget proposal.

According to Richard Melucci, BNL's Budget Officer, the total allocation for the Office of Science is comparable to what is in the President's budget. And, compared to last year's budget, this year's budget has important increases for that DOE office, which supports 80 percent of BNL's DOE-funded programs.

For major projects, the FY 2001 Presidential Budget included the following:

- RHIC: \$100 million for machine and experimental operations, \$8 million for capital equipment and accelerator improvements.
- NSLS: \$36 million, including a \$3-million increase above inflation for capital improvements.

Melucci also said that the final version of the Energy and Water appropriation contains a nearly 9 percent increase in Office of Science funding for biological and environmental research. "While we don't know yet what that will mean for BNL specifically, that was certainly good news," he said.

The projected budget also includes full funding for the Spallation Neutron Source, being built in Oak Ridge. BNL is responsible for the accumulator ring, for which the Lab will receive \$30 million in fiscal year (FY) 2001. BNL is also expecting \$5 million in delayed authorization from FY00.

Melucci added that the travel ceiling for DOE was increased by one-third, which should bring some relief here.

## Coming Up

Brookhaven Lecture  
Next Wednesday, 4 p.m.  
Jeffery Mitchell presents,  
"The Physics of PHENIX"  
See story inside . . .



Brazilian Music Recital  
Wednesday, October 25  
Two concerts by Anima  
See story inside . . .



Calendar  
of Recreational Events

- The BERA Sales Office is located in Berkner Hall. It is open on 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 Room located in the apartment area.
- The Recreation Building is located in the apartment area.
- Calendar events flagged with an asterisk (\*) have a longer story appearing in this week's Bulletin.

Medical, Dental Enrollment  
Open Until 10/31

Every Tuesday

Welcome Coffee

10-11:30 a.m. Recreation Bldg.  
Hospitality event

Every Wednesday

On-Site Play Group

9:30 a.m.-11:30 a.m. Recreation Bldg. Parents can meet while children play. Free, drop in any time. Monique de la Bey, 399-7656. — Hospitality Event.

Yoga Practice Sessions

Free, 12:10-12:50 p.m. Recreation Bldg.  
First class: 10/11  
More information: Ext. 3924.

Every Tues. & Thurs.

Aerobic Dance

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

Every Mon., Tues., & Thurs.

Cardio Kickboxing

Day Classes: noon-1 p.m.  
Mondays and Thursdays  
Evening Classes  
5:15-6:15 p.m. Tues. & Thurs.  
Tues. class: in Gym  
Mary Wood, Ext. 5923,  
wood2@bnl.gov.

—THISWEEKEND—  
  
Friday, 10/13

Golf Tournament

BERA Golf Association tournament. Contact: Jeff Williams, Ext. 5587, jwilliams@bnl.gov.

Saturday, 10/14

N.Y.C. / Planetarium

\$19 per person  
Do your own thing, or visit the Planetarium, or the American Museum of Natural History. Bus will stop: north side of museum at West 81st Street and at Rockefeller Center. Departs Brookhaven Center 11 a.m. Returns 7 p.m. — BERA event.

Sunday, 10/15

Walk to Fight Breast Cancer

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. Mary Wood, Ext. 5923 — BERA event.

357<sup>th</sup> Brookhaven Lecture

PHENIX's First Flight: The Search for QGP

On Wednesday, October 18, at 4 p.m. in Berkner Hall, BNL physicist Jeffery Mitchell will discuss the goals of the PHENIX collaboration when he presents the 357<sup>th</sup> Brookhaven Lecture entitled "PHENIX's First Flight: Continuing the Search for Quark-Gluon Plasma."

PHENIX is one of four experiments currently taking data at the BNL Relativistic Heavy Ion Collider (RHIC). The PHENIX detector is bigger than a house and has more than 400 physicists from all over the world contributing to its construction and operation.

Mitchell will elaborate on the primary goal of the RHIC experiments: to discover a new state of matter called quark-gluon plasma (QGP).

Studying QGP will provide insight into the fundamental nature of matter, and may provide clues about the composition of the universe shortly after the Big Bang.

The PHENIX detector is designed to measure particles that are produced directly within the QGP, namely electrons, muons, and photons. Mitchell will discuss QGP and the approach that PHENIX is taking to study it. Initial results will be presented and explained as well.

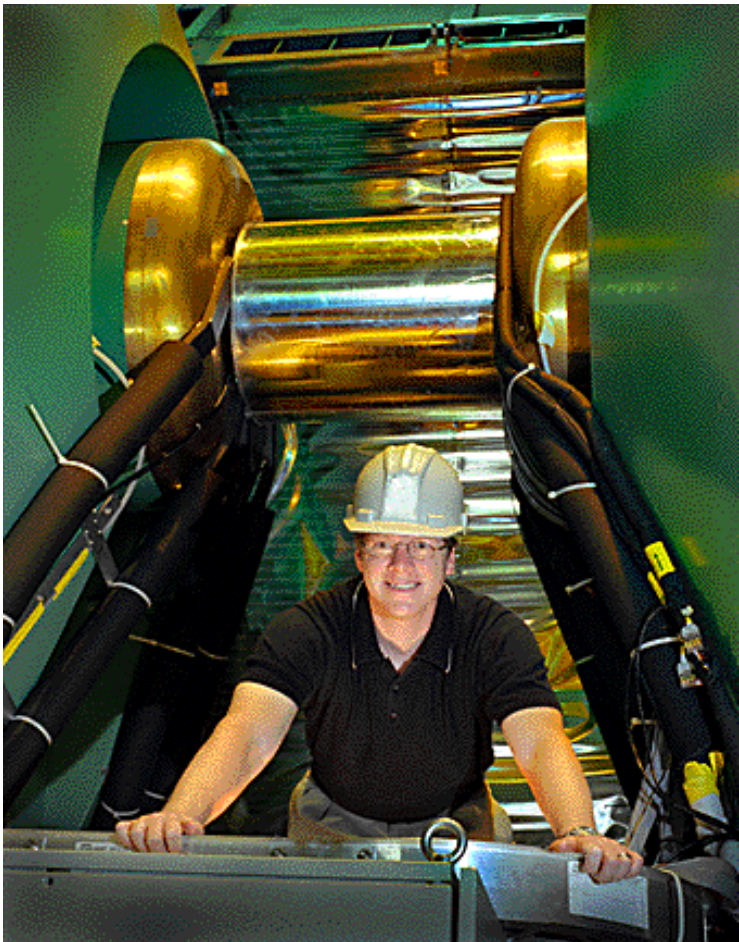
After receiving his Ph.D. from Yale University in 1992, Mitchell took a postdoctoral

position at Lawrence Berkeley National Laboratory, where he worked on the STAR experiment at RHIC before coming to BNL to join PHENIX.

Mitchell has been heavily involved in writing the data-analysis software for PHENIX. He has also produced many of

the RHIC animations that have been seen on many major news broadcasts. When Mitchell is not working on PHENIX, he can usually be found playing in the BNL Volleyball League.

Refreshments will be offered before and after the lecture.



Roger Stoutenburg

Jeffery Mitchell, Physics Department, seen here in front of the PHENIX detector, will deliver the 357<sup>th</sup> Brookhaven Lecture next Wednesday at 4 p.m. in Berkner Hall.

Arrivals & Departures

Arrivals

Behnaz Behrouzian  
Biology  
Philip M. Gardner  
Proc. & Prop. Mgt.  
Baoshan Wang  
Chemistry  
Thomas A. Yanuklis  
Physics  
Huaqen Yu  
Chemistry

Departures

Joseph Barkwill  
Reactor  
Nathaniel Coniglio  
Safeguards & Security  
Veronica Evans  
ITD

New Hours  
for BNL Cashier

Beginning on October 30 the Cashier's Office, located in Bldg. 134, will be open from 1:30 to 3:30 p.m., Monday through Friday.

BSA Recital and Concert, October 25  
Brazilian Music Ensemble: Anima

Anima is an ensemble that performs traditional Brazilian and early music. Their repertoire explores Brazilian folk music and its roots in ancient European, African, Middle Eastern, and indigenous Indian music. This unique and allegorical mixture of popular and classical repertoires, with traditional and early instruments, brings to light the oldest roots of Brazilian traditional music, as well as the folk roots of early European music.

Anima will present two concerts on Wednesday, October 25, in Berkner Hall. A one-hour concert at noon will feature mostly Renaissance music, with a preview of the Brazilian music that will be the focus of the two-hour evening concert, at 8 p.m. The noon concert is free, while the cost of the evening concert is \$15 per person and \$10 for seniors and full-time students. Both concerts are open to the public, and no reservations are required.



"Nothing could be as modern as the ancient music performed by Anima, a group of talented musicians able to fuse in a most natural way the sounds of a medieval dance, a song from the Jequitinhonha Valley, and the lyricism of Jobim. A marvel!" — Classic CD

Test Your Water,  
Rate BNL's Water

During Healthfest's two-day Heath, Fitness & Safety Fair on October 25 & 26, BNLeers are invited to stop by the BNL Drinking Water Quality table, to have their home tap water tested for five parameters — and to rate the taste of BNL's drinking water in comparison to other water.

To have home tap water tested, bring a sample in a clean glass container the size of a Mason jar.

To take part in the blind taste-test, be prepared to sample five "brands" of water, including BNL water.

Research Subjects Wanted

Healthy women between 18 and 40 years of age are wanted to participate in an MRI study of the brain during different phases of the menstrual cycle. Candidates must have normal menstrual cycles, not be on oral contraceptives, and not have any medical electronic implants.

Participants will receive up to \$400 for four MRI studies. Interested candidates may call Margaret Taneus, Ext. 3708, or Mary Johnson, 444-3578.

PeopleSoft Workshops

BNL's Business Systems Division is conducting workshops for those interested in learning PeopleSoft. Each of these sessions is hands-on and requires prior registration through the BSD help desk, Ext. 6262. Registration requests can also be made using the BSD on-line request form at [www.bsd.bnl.gov/request3rd.htm](http://www.bsd.bnl.gov/request3rd.htm), where there is also a link to further topic descriptions and prerequisites.

Date

Oct. 18  
Nov. 1  
Nov. 15  
Dec. 6  
Dec. 20

Time

10 a.m.  
10 a.m.  
10 a.m.  
10 a.m.  
10 a.m.

Topic

PeopleSoft query swap  
using PeopleSoft query  
PeopleSoft query swap  
using PeopleSoft query  
PeopleSoft query swap



# BWIS Awards 2000 Chasman Scholarship

Brookhaven Women in Science (BWIS) has awarded Barbara Jean Klaritch-Vrana the 2000 Renate W. Chasman Scholarship. The \$2,000 scholarship is awarded annually as part of BWIS's mission to promote the advancement of women in the scientific professions.

Klaritch-Vrana earned a B.S. in chemistry from the College of Mount St. Vincent in 1978, an M.S. in medical biology from C.W. Post College in 1982, and an M.S. in clinical nutrition from the New York Institute of Technology in 1987. A registered dietitian, Klaritch-Vrana currently teaches courses in nutrition and chemistry at St. Joseph's College.

In 1999, Klaritch-Vrana enrolled as a part-time graduate student at St. John's University to pursue a degree in pharmacology. She had delayed her doctoral studies for two reasons. First, she is mother of four children, ages 12, 10, 9 and 7; and, as a result she has taken an active role as a volunteer in the Girl Scouts and Boy Scouts, and in her church. Second, she underwent open heart surgery in 1993.

"My personal experience with heart disease has provided me with the impetus to further my education in the health sciences," she said. "I



Barbara Jean Klaritch-Vrana, (center), is presented the 2000 Chasman Scholarship by Pam Mansfield of BNL's Information Technology Division (left) and Lisa Tranquada of the National Synchrotron Light Source; both members of the BWIS scholarship committee.

envision myself as a member of a health care team in a teaching hospital being involved in education, research, and clinical studies. I believe that my background in nutrition and chemistry, as well as my own personal experience with heart dis-

ease, will be an asset to me as a pharmacologist."

The Chasman Scholarship is named after the late Renate Chasman, a renowned physicist who worked at Brookhaven.

The scholarship is intended to encourage women to pur-

sue careers in science, engineering or mathematics. Since its inception in 1986, the award has been presented each year to a reentry woman — one whose college education was interrupted, but who has returned to pursue a degree on a half-time or greater basis.

— Diane Greenberg

## Site Environmental Report

the entire year. BNL's radiological air emissions are governed by the EPA and are authorized under National Emission Standards for Hazardous Air Pollutant regulations.

- The Lab's sewage treatment plant, a discharge point regulated by the New York State Department of Environmental Conservation, was 100 percent compliant for liquid discharges

in 1999. Tritium concentrations in the sewage treatment plant discharge were at the lowest levels since routine monitoring began in 1966. During 1999, the average tritium concentration was 133 picoCuries per liter, or less than one percent of the EPA drinking water standard of 20,000 picocuries per liter (a picoCurie is a radiation measurement equivalent to one-trillionth of a Curie). For surface water samples, all water-quality measurements were consistent with off-site control

locations (areas not influenced by BNL operations).

- Areas of the site where past activities have caused groundwater, soil, and sediment contamination continued to undergo monitoring and cleanup in 1999. Program highlights included the construction and operation of BNL's first off-site groundwater treatment system and the start of decommissioning work at the graphite reactor. In addition, six on- and off-site groundwater treatment systems cleaned more than 757 million gallons of water and removed 634 pounds of chemical contaminants from the aquifer. Environmental restoration at BNL is conducted under the oversight of the New York State Department of Environmental Conservation, the EPA, and the Department of Energy, in cooperation with the Suffolk County Department of Health Services.

- Monitoring showed that deer and fish on and near the site still contain low levels of BNL-related radionuclides. Calculated maximum credible radiation doses due to deer and fish consumption were estimated at 0.25 mrem and 4.2 mrem, respectively. The annual dose due to deer meat consumption is based on a conservative consumption estimate of 64 pounds per person, while the dose due to fish consumption is based on a consumption estimate of 15 pounds per person.

Data summarized in the 1999 report were obtained through testing performed by certified BNL or independent laboratories, the Suffolk County Department of Health Services, the New York State Department of Health, and the New York State Department of Environmental Conservation.

Hard copies of the report are also available. To obtain copies of the report or a summary booklet, call Ext. 8584. — Pete Genzer

(cont'd.)

## 2001 BSA Scholarship Alert

Applications for 2001 BSA Scholarships may now be obtained from the Human Resources Division, Bldg. 185. The application deadline is November 15.

Children of regular employees of BNL are eligible to compete for up to 13 BSA scholarships, each for \$2,500 per year, renewable for up to four years of study toward an academic degree.

In addition, up to two scholarships may be awarded to BNL employees' children who are black, Hispanic or Native American. If there are no awards to under-represented minority students, then the remaining scholarships will be awarded to non-minority students.

Applicants must be secondary school seniors who will be graduated during

the current academic year and entering college by fall 2001.

In addition, qualified applicants must be: children of BNL employees who began regular, full-time or regular, eligible part-time employment no later than November 15 of this year, and who are employed by BNL at the time the award is announced; or children of retired employees or employees who died while in regular service at the Lab. Stepchildren are eligible if the employee regularly claims the child as a dependent for income-tax purposes, or if the stepchild has resided in the employee's household for the previous two years before making the application.

For more information, contact Bonnie Hulse, Ext. 2885.

## 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 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.

MK8899. SCIENTIST - Requires a Ph.D. in physics, several years of postdoctoral experience in the field of heavy ion physics, strong background in programming using C++, FORTRAN and GEANT3, and excellent communication skills. Will work in the STAR Experimental Group at RHIC as the (continued on page 4)

## Calendar (continued)

### — NEXT WEEK —

Tuesday, 10/17

#### Voicestream Wireless Demo

10 a.m.-2 p.m., Berkner Hall

Wednesday, 10/18

#### CTP Wireless Demo

10 a.m.-2 p.m., Berkner Hall

#### \*Brookhaven Lecture

4 p.m. Berkner Hall  
Jeff Mitchell will speak about RHIC's PHENIX detector

Thursday, 10/19

#### Computer Training Demo

New Horizons Computer Learning Center - Training Options  
Berkner Hall, 10 a.m.-2 p.m.

#### Bridge Club

7:15 p.m., Berkner cafeteria  
contact Morris Strongson, Ext. 4192, [mms@bnl.gov](mailto:mms@bnl.gov).

Sunday, 10/22

#### American Heart Assn. Walk

Beginning at two locations:  
• Suffolk Community College in Riverhead  
• SUNY Farmingdale  
Registration at 8 a.m.  
Contact Mary Wood, Ext. 5923

### — WEEK OF 10/23 —

Healthfest this week.

Monday, 10/23

#### Healthfest 2000 Walk

12:05 p.m. (Stretch: 11:45)

Tuesday, 10/24

#### Healthfest 2000 Run

12:05 p.m. (Stretch: 11:45)

Wednesday, 10/25

#### Healthfest Health Fair

11 a.m.-2 p.m.

#### Mountain Bike Ride

noon

#### \*Brazilian Folk Music Recital

noon recital  
8 p.m. concert  
Berkner Hall  
ANIMA ensemble performs traditional Brazilian music.

Thursday, 10/26

#### Healthfest Health Fair

11 a.m.-2 p.m.

#### Tennis Fitness Workshop

11:30 a.m.-1:30 p.m.

Friday, 10/27

#### Golf Fitness Workshop

11:30 a.m.-1:30 p.m.

*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.*



# Congratulations BNL RRRRoadrunners

On July 25, the running club's mens team finished first and the women's team finished second against 8,200 runners at Jones Beach in the Long Island Championships of the Chase Corporate Challenge Series. On September 25, the BNL Roadrunners Club placed second in the Ocean-to-Sound 50 mile relay behind Computer Associates in the corporate category. The Lab's Safeguards and Security Division placed fourth in the enforcement category. The Roadrunners club, which usually runs at noontime from building 703, welcomes new runners. Pictured at right are some of the Club's members who raced at Jones Beach. For more information, contact Diane Hatton, Ext. 4305.

## Classified Ads (cont'd.)

leader of the collaboration's event and detector simulation efforts. Will manage a team working on the maintenance and further development of the detector simulation software, will actively participate in code development, coordinate the usage of computing farms at several institutes for Monte-Carlo production, respond to requests of the physics-working-groups, and participate in the experimental physics program. Under the direction of T. Hallman. Physics Department.

MK1111. DIRECTOR, ENVIRONMENTAL MANAGEMENT - Reporting to the Laboratory Director, will manage Directorate level responsibilities for the implementation of BNL's environmental restoration, former nuclear facility decommissioning program and legacy waste/materials disposition activities, and waste management program. Will act as BNL's representative to DOE EM and SC concerning all cleanup and waste management programmatic responsibilities, respectively. Will ensure that DOE programmatic expectations and goals are achieved and that environmental restoration and former nuclear facility decommissioning activities are carried out in an efficient and effective manner with regard to worker safety, environmental protection, community involvement, and project cost and schedule performance. Requires a BS, plus MS or Ph.D., in environmental science/engineering or closely related field, and 15-20 years environmental experience in positions of increasing responsibility, including a minimum of 8-10 years managing Division/Department level responsibilities consisting of environmental professionals, engineers, and technical staff responsible for environmental restoration, decommissioning, and waste management programs. In addition, demonstrated exceptional technical and people leadership, communication and strategic planning skills; customer service orientation; excellent technical capability and knowledge of environmental restoration, nuclear facility decommissioning and related environmental cleanup technology also required. Demonstrated ability to work effectively with stakeholders important to environmental restoration and facility decommissioning necessary. Director's Office.

DD8984. SECRETARIAL POSITION - Requires an AAS in a related field and fluency in both English and Japanese. Will assist the RIKEN Account Manager with accounting procedures, property management, simple document translations, letter preparation and travel arrangements. Will communicate with various organizations concerning RIKEN Brookhaven Research Center. Additional duties include maintaining supplies and providing office support as needed. Physics Department.



Roger Stoutenburgh CNE-3-00