BROOKHAVEN BULLETIN
Vol. 43 - No. 2 January 13, 1989
BROOKHAVEN NATIONAL LABORATORY

DOE Report Estimates Facilities Cleanup Costs

In a report released Tuesday, January 4, the U.S. Department of Energy (DOE) estimated that it will cost between $53 billion and $92 billion to address environmental, safety and health problems at all DOE facilities. A major portion of these costs are to eliminate existing radioactive and chemical pollution.

Addressing known environmental hazards at BNL, the report said, will take at least $17 million.

Between $40 billion and $70 billion of the estimated total will be required by DOE's nuclear weapons facilities. With BNL's funding needs so minor in comparison, the Lab is waiting to learn where it will be ranked for funding among all DOE facilities.

The BNL estimate of between $17 and $22 million for cleanup and environmental upgrades is drawn from a long-range Environmental Health and Safety (EH&S) plan that the Lab developed and sent to DOE in September 1988. The BNL plan outlines anticipated actions for existing environmental problems — the Lab's strategy for expanding the current program for characterizing and monitoring the site, and the upgrades required to avoid future radioactive and chemical pollution.

While it addresses safety and health issues, as well as environmental ones, the EH&S plan dovetails with the Lab's response to DOE's Environmental Survey, conducted at BNL in April 1987 as part of a study of all DOE facilities.

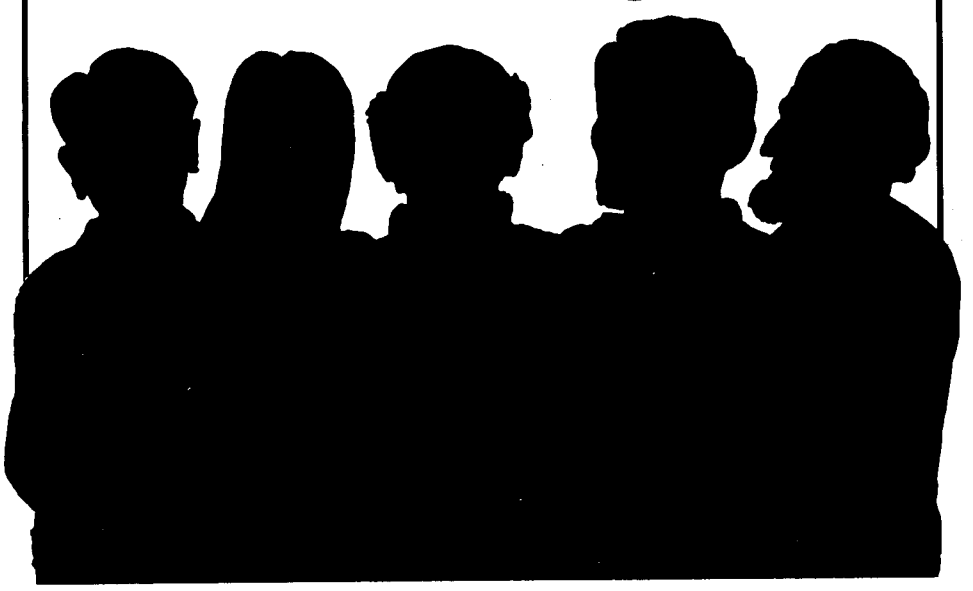
At BNL thus far, the DOE survey has found no environmental conditions that pose an immediate threat to human life. It has, however, identified several potentially significant problems that are thought to have resulted from then-accepted practices that took place before many environmental hazards were recognized or current regulations were in effect. Most significant of these is the presence of radioactive and chemical contaminants in groundwater underlying specific areas on the Lab site.

To identify further the extent of this pollution, DOE staff took soil samples in April 1988, and installed and sampled ten new wells on site last summer. No results have yet been received from any of these tests.

Several programs are already in the works to remedy the groundwater situation. Work is now in progress to install 51 new wells all around site for groundwater monitoring and should be finished by the end of February. The Lab is also prepared to begin a DOE-funded project to cap the Lab's landfill, as soon the Environmental Protection Agency and New York State have fully reviewed the plans and concur that capping is the best remediation method.

In sum, said Gerald Kinne, Assistant Director for Reactor, Safety and Security, "We have had good support from DOE in getting line-item funding, even though our problems are not nearly as serious as those at some of the other energy sites. On top of that, the Lab has taken the initiative and has allocated funds in areas where we see an immediate need." □

Standing Room Only At HEP Town Meeting



By 10:05 a.m. on January 5, the large seminar room in the Physics Building was packed: The high energy physics community's Town Meeting — called to get views on future directions of high energy physics both before and after the advent of the Superconducting Super Collider (SSC) — was under way. And by 1:05 p.m., in a surprise ending to the meeting, Lab Director Nicholas Samios had pledged $1 million towards the Alternating Gradient Synchrotron's (AGS) already significant contributions to a vigorous national high energy physics program leading up to the SSC era.

Optimistic Consensus

The 1:05 p.m. ending, one hour after schedule, demonstrated the marked enthusiasm and interest of participants. This led to a generally optimistic consensus — that the cutting-edge science done at Brookhaven's AGS will be of great value to the SSC.

It was agreed that, for the comparatively minimal cost needed to cover present and planned AGS upgrades and improvements, experiments done here will help to keep the U.S. in the forefront of high energy physics while the SSC is being built. Also, the AGS is providing and will continue to provide a unique testing ground for experiment-specific research and development in advanced accelerator and detector design. Equally important, the AGS provides a training ground for the young scientists who will be needed when the SSC comes on line, in about 1996. In addition, BNL is directly involved in SSC accelerator and detector R&D.

Addressing Three Questions

One of five simultaneous meetings called by a recently formed subpanel of the High Energy Physics Advisory Panel (HEPAP), the town meeting was opened by the subpanel's chair Stanley Wojcicki, of Stanford University and the SSC Central Design Group. Wojcicki explained that his panel was set up to answer a letter from Robert Hunter Jr., Director of the Department of Energy's Office of Energy Research.

In his letter, Hunter had asked HEPAP Chairman Francis Low to address three questions: First, what are the important problems in high energy physics prior to the SSC, and how can we solve them? Second, how should the SSC program be structured to ensure the greatest benefit to the U.S. scientific and technical community? Third, what should be the criteria determining the SSC program? To develop a response to these questions, Low formed Wojcicki's subpanel.

Plans for the Future

In light of the questions, BNL's future plans were presented by Laurence Trueman, Associate Director for High Energy Physics. He made the point that the exceptionally strong AGS program already complements physics programs at the very high energy colliders.

Also, both the present and long-range R&D programs for BNL involve the U.S. scientific and technical community in two ways: first, in developing magnets and detectors for the SSC, and, second, through planned improvements to the AGS.

During the period 1986-88, 654 users, including 87 thesis graduate students, came from 96 institutions worldwide to work at the AGS. Improvements

(Continued on page 2)

Do Plants Take a Cotton to CO_2?

Summertime and the livin' is easy; Fish are jumpin' and the cotton is high . . .

Will increasing concentrations of carbon dioxide (CO_2) above the normal 350 parts per million cause the Earth to become a giant greenhouse with a climate of perpetual summertime?

Realistically, to find out how increasing atmospheric concentrations of CO_2 — the principal nutrient of plants — will affect plants, crops, forests and other ecological systems, one team of BNL researchers grew cotton last summer, in Yazoo City, Mississippi.

Ring Around the Cotton

Ecologist George Hendrey, head of the Terrestrial & Aquatic Ecology Division of the Department of Applied Science, and his colleagues are the first to be able to control the concentration of CO_2 around plants growing in an open field — by surrounding them with circular apparatuses of gas piping.

In other CO_2 experiments to date, crops have been grown within real greenhouses or field chambers, "But both methods produce enclosure effects of their own," explains Hendrey.

By eliminating enclosures, Hendrey and company do not have to factor out their effects from the results. Thus, the researchers are the first to produce a stable physical simulation of the increasing concentrations of CO_2 expected in the fields of the near future — due to the modern-day burning of fuels, which was preceded by the burning of wood and coal since the Industrial Revolution.

Called Free-Air CO_2 Enrichment (FACE), Hendrey's work is sponsored by the U.S. Department of Energy's Carbon Dioxide Research Division.

Roger Stoutenburgh

Standing before the 15-meter Free-Air CO_2 Enrichment prototype ring in BNL's ecology field are: (from left) Keith Lewin, Mary Daum, George Hendrey, Lance Evans and John McNeil.

Man-Made Greenhouse Effect

Beginning in England around 1769, the year the steam engine was invented, the Industrial Revolution changed the economic structure of society: Around the world, the labor force moved from rural agricultural fields into urban industrialized factories.

The Industrial Revolution was fueled by wood and coal, and the carbon stored within them was released to the air as CO_2. By continuing to burn fossil fuels, our modern-day industrial society continues to add CO_2 to the air, but at an accelerating rate.

It is natural for the Earth's atmosphere to act like a glass greenhouse, trapping in the heat of the sun. If the atmosphere were not tens of thousands of meters thick above the Earth, acting like a greenhouse between the Earth and the sun, the Earth would be significantly cooler.

Like a greenhouse, the atmosphere transmits solar radiation to the Earth, where some of it is absorbed. But much of the radiation is reemitted by the Earth through the atmosphere as infrared radiation. Warming of the atmosphere occurs when this infrared

(Continued on page 2)

Carbon Dioxide (cont'd)

radiation is absorbed by water vapor, CO_2, methane and a few other gases.

The increasing amount of CO_2 in the atmosphere has become responsible for about 50 percent of the man-made greenhouse effect, which may be causing an increase in average temperatures worldwide.

Non-Relativistic Gas-Phase Molecular Accelerators

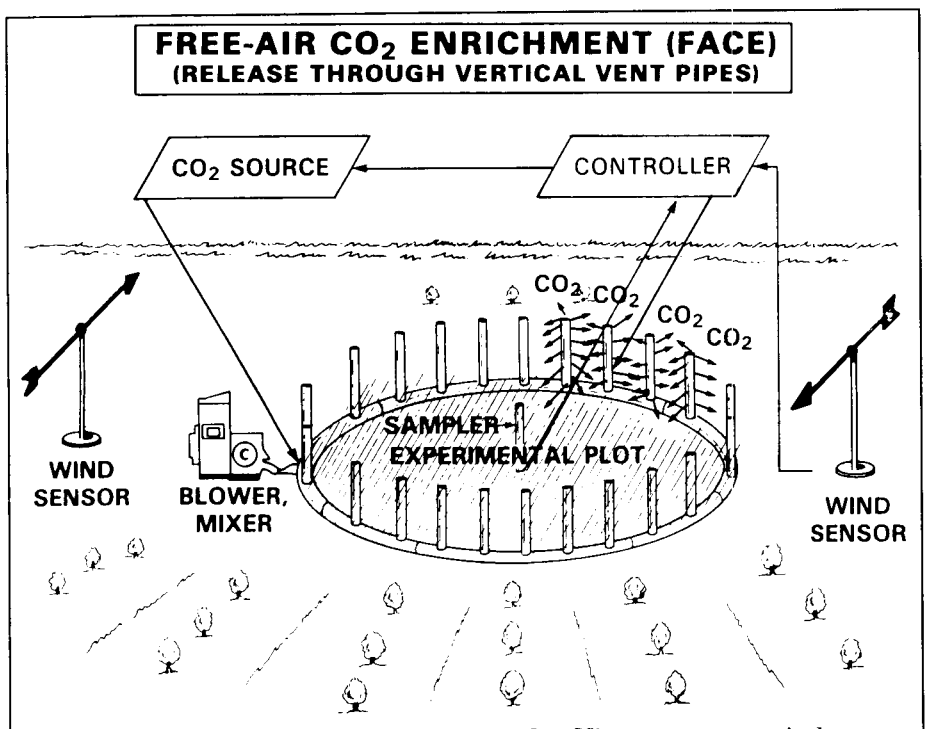
Besides affecting the temperature, above-normal concentrations of CO_2 may produce other effects.

To characterize those effects on plant development, growth and productivity, and to develop field data to evaluate computer plant-growth models, Hendrey has developed what he affectionately calls his non-relativistic gas-phase molecular accelerators. In addition to CO_2, these rings are used to accelerate ozone and sulfur dioxide.

Installed in spring 1988, the four 22-meter-in-diameter Yazoo City rings are made of piping 30 centimeters in cross section. Gas is accelerated through each ring's piping by a blower. Evenly spaced around each ring, 32 vertical vent pipes rise two meters high; through them, the gas is released into the cotton field (see diagram).

Ten for 90

Hendrey's objective was to hold the gas concentration averaged over one minute to within plus or minus 20 percent of a set point concentration for 80 percent of the time. However, he and his coworkers have demonstrated an unprecedented amount of control: Their array controls the gas concentration averaged over one minute to within plus or minus 10 percent for 90 percent of the time.

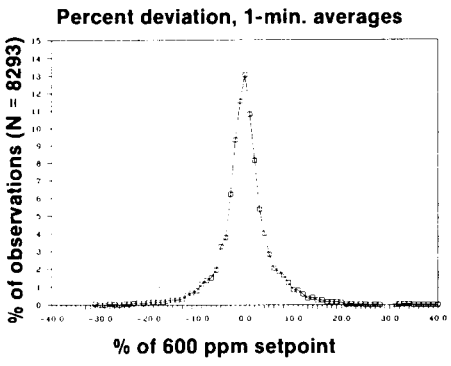


How Free-Air CO_2 Enrichment works: Via computer, a wind sensor tells the upwind vent pipes to open the valves at their bases and release the gas from the ring, while informing the valves at the foot of the downwind standpipes to close. With the upwind vent pipes open, gas is blown across the cotton plot in the center of the array.

Another wind sensor determines the wind velocity, information that the computer uses to determine the opening of the gas-flow valve of each ring. For instance, as the wind picks up and dilutes the gas concentration across the array, the gas-flow valves open further, increasing the rate of gas release to keep the gas concentration constant.

In the middle of each ring stands a sample tube, which sends air back to a CO_2 analyzer to measure the actual gas concentration. Knowing this, the computer controller predicts the wind conditions 30 seconds into the future and adjusts the vent-pipe valves accordingly.

Deviation from 600 ppm setpoint



For a 138-hour run of the Free-Air CO_2 Enrichment rings, this graph shows that the concentration of CO_2 was maintained within 10 percent of the 600-parts-per-million set point for 98 percent of the time.

Hendrey was assisted by Environmental Science Associate Keith Lewin, who was responsible for building the FACE rings and for the field operations in Mississippi. Lewin had help from Technical Associate John McNeil.

Consultant Dorota Kolber developed the computer-control system. Engineer Donald Huszagh did the electrical engineering of the control system. Engineer Frederick Lipfert and Environmental Science Associate Mary Daum perform the data analysis and gas-dispersion modeling. Consultant Lance Evans, a botanist from Manhattan College, evaluates the effects of CO_2 enrichment on the growth and physiology of cotton plants.

Water the Cotton

Now that the FACE rings have been proven to work in the field, Hendrey is planning to expand his experiment to 12 arrays in another experimental field. There, he will not only grow cotton in different concentrations of CO_2, but also vary the amount of water the plots get, to see if high concentrations of CO_2 cause the cotton to use water more efficiently. — Marsha Belford

Town Meeting (cont'd)

that will help keep the AGS as their facility of choice are, for example, the Booster, already well on the way to starting operation in 1991; a muon g-2 storage ring and beam that could begin operation in late 1992; and a proposed stretcher ring. All of these can be achieved at comparatively low cost. The projected Relativistic Heavy Ion Collider would add a major new facility for high energy ion collisions.

As to what criteria should determine the content of the SSC program, Trueman felt that the answer lay in the quality of the physics as judged by peer review — and cited the Coolfont and Treiman panels' recommendations of broadly based, diverse programs including many of the experiments now in progress and planned for the AGS.

A Lively Discussion

A lively discussion followed, opened and chaired by Princeton University's Stewart Smith, head of the AGS Users' Organization, in which Lab staff and BNL users were encouraged to express their views — briefly! About 20 of the more than 200 attendees came forward to speak, with frequent comments and questions from the audience.

Unanimous support was given to the unique experimental facilities provided by the AGS, but also unanimous were demands for more running time, a problem already pointed out as crucial by Trueman and Smith. The general feeling is that the 20 weeks a year allowed by present budget constraints is inadequate.

Both project leaders and graduate students emphasized the excellence of the AGS experience for students. Since most experiments are comparatively small, students get a comprehensive understanding of and proficiency in all phases of the work, usually about five years.

Other points made were the necessity for the SSC effort to be carried out in a timely way and the danger of concentrating funds on the SSC to the detriment of other important physics. To the concern that the SSC will denude other laboratories of high energy physicists, Samios pointed out from the floor that the SSC will need a different mix of specialists — with relatively more engineers than physicists.

Concluding on a High

The upbeat mood of the attendees was solidly confirmed by Samios' concluding remarks. He not only assured young scientists of Brookhaven's continuing commitment to science of a quality that has already won three Nobel Prizes, but he also committed himself to finding a contribution of $1 million to extend the running time of the AGS when it is needed.

— Liz Seubert

Coming Up

Janakiram Naidu, an ecologist with the Safety & Environmental Protection Division, will give the next Brookhaven Lecture on Wednesday, January 25. His talk on "Groundwater: Protecting the Unseen Resource" will begin at 4:00 p.m. in Berkner Hall.

PSI Meeting

The guest speaker at the next monthly meeting of the Upton Chapter of Professional Secretaries International (PSI) will be Dawn Baiata-Nicolai of the Brighter Tomorrows women's and children's shelter. On Wednesday, January 18, she will discuss the fact that more than two million women are physically and emotionally abused in their homes every day and explain how Brighter Tomorrows offers refuge and rehabilitation for such victims of domestic violence. Her talk will begin at 6 p.m. in the North Room of the Brookhaven Center.

Note to Drivers

If you rent cars for official or personal use and don't recognize this

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you are missing out. Check with the Travel Office, Ext. 2531, Bldg. 179, for more information.

Update Your ID Card

Employees and guests — check your wallets. Has your BNL identification card expired? If so, please renew your card at Police Headquarters, Bldg. 50, 9:30-11 a.m., Mondays, Wednesdays and Fridays. For more information, call Hank Raimondo, Ext. 7258.

Enter R&D 100

Every year, *Research & Development* magazine stages a competition to uncover the year's 100 most significant technological developments. Last year, in fact, three technologies developed at BNL during 1987 won R&D 100 awards. These are among the 34 Department of Energy award winners featured in a traveling exhibit that will be on display in the lobby of Berkner Hall, from January 17 through February 3.

Now, the search is on for the next R&D 100 winners. Any new technical product that was first marketed between January 1 and December 31, 1988, may be entered. Products that will not be mass-produced must have become available for contract or licensing during that period, or — in special instances — completed and delivered by a federal agency or laboratory during that period.

The Lab encourages participation in this competition and pays the entry fees, as well as any associated expenses for R&D 100 award winners.

Applications are now available from the Office of Research and Technology Applications (ORTA), Ext. 2103, Bldg. 475. All entries must be received by ORTA by February 15.

team safety

In the second week of 1989, all was quiet on the Team Safety front. All the teams are proceeding toward their respective goals with no lost-time injuries to report. Never was the saying "no news is good news" more appropriate.

Word from the locker room is that the flashlights have been well received. The commissioner is looking for good ideas for the upcoming triple-play winners. Something less than a Corvette is what we have in mind for now. Send your comments to Team Safety, Bldg. 535.

Keep up the safe work.

To Your Health

Limit cholesterol, don't use salt, avoid saturated fats, eat cholesterol-lowering foods, increase fiber — these are good eating guidelines for a healthy heart. But how do you put them into practice — at the grocery store and on the dinner table?

"Nutrition for a Healthy Heart" is the title of the next series of Health Promotion Program seminars. Beginning on Tuesday, January 17, at noon in Berkner Hall with "Lowering Serum Cholesterol," this series of four, informative lectures will give you food for thought on eating properly to prevent heart disease.

Subsequent talks will be "Salt and Sodium in Foods," on January 31; "Tips for Achieving Ideal Body Weight," February 14; and "Fiber and Carbohydrate in Your Diet," February 28; all at noon, in Berkner Hall.

The four talks will be given by registered dietician Maria Museler, who is an associate professor and the director of the Dietetic Technician Program at Suffolk County Community College. For more information about this series, contact Health Promotion Specialist Elaine Friedman, Ext. 2699, Tuesdays, Thursdays and Fridays.

Arrivals & Departures

Arrivals

Claudia A. Adamczyk ..... AUI
Tim Kahn ..... Accel. Dev.
Henry F. Kahnhauser ..... S&EP
Murry Meller ..... MIS
Juanita L. Urban ..... DAS
Kim A. Woodle ..... AGS

Departures

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

Richard A. Lewis ..... DNE
Krzysztof Polewski ..... Biology

Got a Problem? They Can Help!

Roger Stoutenburgh

BNL's Employee Relations Committee (ERC) is dedicated to helping non-bargaining, non-scientific employees solve work-related problems that they have not resolved with their supervisors. Shown here are the ERC's new, continuing and outgoing members: (front, from left) Susan Eng, Chairperson Carolyn Albert, Michael Zguris, Annette Gremme; (back, from left) Nicole Bernholc, Richard Seebeck, Michelle Haller, Michael Schaeffer and Susan Foster (Employee Relations Counselor, ex officio). Not shown are Randolf Church and Marguerite Marsch, who is one of the ERC's three new members, with the others being Seebeck and Schaeffer. They replace outgoing members Eng and Zguris, who is outgoing chairman, and former member Jose Medina, who left the Lab last year. ERC members are appointed by the Laboratory Director, to whom the group is responsible.

With each referral, the ERC's goal is to hear all sides of an issue and resolve it in complete confidentiality. To contact the ERC, call its special number, Ext. 4005, or contact the individual members: Albert, Ext. 3717, Physics; Bernholc, Ext. 2027, S&EP; Church, Ext. 7578, NSLS; Gremme, Ext. 3662, Medical; Haller, Ext. 7908, DCP; Marsch, Ext. 3275, DAS; Seebeck, Ext. 4313, Chemistry; and Schaeffer, Ext. 7941, PE.

TUNE IN!

A program to provide answers to your Complaints Comments Questions

Only one person should sign this form – the answer will be mailed to you at your home.

As many letters as possible of general interest will be published in the "Brookhaven Bulletin."

Your name will be kept confidential by the editor.

Please use separate form for each subject

Tune In To Tune In!

What's a Tune-In?

It's a letter written to the editor of the Bulletin by an employee who wants to air a complaint, question a practice, or simply sound off. This means of directing questions or complaints to members of management, while the sender's name is kept confidential, has been used by about 750 employees since the program's inception in 1969.

To transmit your message, look for one of the orange Tune In! forms contained in a plastic box in your building. For a supply of Tune In! forms, call the BNL mailroom, Ext. 2534, or Public Affairs, Ext. 2345.

When a Tune In! is received at the Bulletin Office, it is numbered and typed up without the writer's name, then forwarded to the appropriate person for reply. The reply is sent to the employee, and no record is kept of his or her identity. If the letter is of general interest, and if all parties agree, it may be published in the Bulletin.

Check here ☐ if you do not want your letter published.
Check here ☐ if, instead of a mailed reply, you prefer to discuss this matter with a qualified person.

(Please Print)

Name Miss Mrs. Mr.

Home Address

City State Zip Code

(Note: This information is only to assist the editor. Remember, if you don't include your name you cannot receive an answer unless it is chosen for publication. This part of the form will be destroyed after your letter is answered.)

TUNE IN!

Other Helpful Avenues

The Tune In! program and the Employee Relations Committee (ERC) discussed elsewhere in this issue, are but two of the six avenues open to employees seeking to resolve work-related problems or complaints. The others are:

- **Affirmative Action Program (AAP)** — With an issue related to the Lab's AAP or equal employment opportunity effort, you should contact Otto White, acting Assistant to the Director for Affirmative Action, Ext. 3316 or 4248, Bldg. 185A. You may also contact your department or division's Affirmative Action Representative, who serves as a liaison to the Affirmative Action Office.
- **Employee Assistance Program** — Clinical psychologist Jannifer Hill manages this program, which can assist employees with mental health problems affecting job performance, provide information on mental health issues and offer counseling to employees for such difficulties as alcohol and drug abuse, and family, marital and personal problems. For confidential counseling, call Ext. 4567.
- **Employee Relations Counselor** — Susan Foster holds this position and is available to talk to non-bargaining unit employees. Contact her in Personnel, Bldg. 185, at Ext. 2888. If she cannot resolve the problem, with the employee's consent, she may refer it to the chairperson of the ERC.
- **Women's Program Coordinator** — In this position, Avril Woodhead addresses the individual, job-related problems of women through confidential counseling. Contact Woodhead at Ext. 3482, Bldg. 477B.

AACC Talent Show

All students enrolled in kindergarten through 12th grade are invited to compete in the Afro-American Culture Club's (AACC) second annual Talent Show, one of several events the AACC has planned for February to celebrate Black History Month.

Trophies will be awarded to winners in several categories. But before the big night arrives, all entrants must audition. The deadline for scheduling an audition is Friday, January 20.

Auditions will be held at Berkner Hall as follows:

Date	Time
Saturday, January 14	10 a.m.-2 p.m.
Saturday, January 21	2 p.m.-6 p.m.
Friday, January 27	7 p.m.-10 p.m.
Saturday, January 28	10 a.m.-2 p.m.

A piano, phonograph and tape recorder will be available to those auditioning.

During intermission, students may also display exhibits of arts, crafts or science projects. Exhibit participants do not have to be in the Talent Show.

To schedule an audition or register an exhibit, or for further information, contact Mary Durham, Ext. 7143; George Grigg, Ext. 5185; or Celeste Samuels, Ext. 7692.

AA Meetings

Alcoholics Anonymous (AA) meetings are being held at the Lab every Monday at 5:30 p.m. All employees, others with current BNL identification cards and their spouses are invited to participate. To find out the meeting location, call the Employee Assistance Program, Ext. 2733. Participation in AA is confidential, so you will not be asked to identify yourself when placing the call.

Added Addresses

- National Synchvention Light Service
- Brookhaven National Physics Division Labs Upson Corners, NY
- Broad Town National
- Broadhaven National Lab
- Dr. M. J. Physicist Brookhaven National Lab
- Brookhaven N. Laboratories
- Riverside Research Institute Upton, NY
- Brookhmuen National Lab

NYS Withholding Form Available in Payroll

Because of all the federal and state tax changes, some employees may find that the number of allowances they should claim for state withholding is not the same as for federal. In such cases, employees should file a New York State (NYS) form IT-2104 to show the correct number of allowances for NYS.

When the number of allowances is the same for both the state and federal taxes, employees should file federal form W-4 only.

Both forms are available in Payroll, Bldg. 134.

Note to Employees:
Attendance at lectures, meetings and other special programs held during normal working hours is subject to supervisory concurrence.

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Marking Service Milestones in Physics

A party for those members of the Physics Department who observed significant BNL service anniversaries in 1988 was hosted by Physics Chairman Peter Bond (front, left) in Bldg. 510 last month. The honorees included: (front, from left) Samuel Aronson, 10 years; Thomas Ludlam, 10; Robert Wheeler, 25; Edward Sperry, 40; David Alburger, 40; Martin Van Lith, 20; Elizabeth Gilbert, 10; Robin Scarola, 10; Harold Sauter, 25; Alfred Minn, 10; Edward Baker, 10; (back, from left) Joseph Collins, 10; Robert A. Chmiel 10; Joseph Cracco, 10; Ralph Helmig, 25; Myron Strongin, 25; Michael LeVine, 20; David Cox, 25; Robert Scheetz, 25; and Chellis Chasman, 25. Not pictured: Michael Carroll, 10; James Davenport, 10; Richard Fernow, 10; Bruce Gibbard, 10; Ronald Longacre, 10; John Olness, 25; Laurence Passell, 25; and Albert Roberts, 30.

—photo by Roger Stoutenburgh

Social Club

The BNL Social Club has group tickets for the following events at the Nassau Coliseum:

- **Ice Capades** — Friday, February 10, 7:30 p.m., all tickets $11.
- **Harlem Globetrotters** — Sunday, February 19, 2 p.m., all tickets $13.
- **Truck 'n Tractor Pull** — Friday, March 3, 7:30 p.m
- **Ringling Brothers and Barnum & Bailey Circus** — Saturday, March 18, 11 a.m., last performance at Nassau Coliseum; adults, $13.50; children 12 & under, $11.50.
- **Wrestling** — tickets for February, $15.

The Club is also sponsoring a winter getaway weekend to Gore Mountain and West Mountain, March 10-12. Costs are $154/2 per room, $144/3 per room and $134/4 per room. A deposit of $50 is due today.

For more information, call Doris Terry, Ext. 7610.

Microcomputer Club

Michael O'Reilly, Management Information Systems Division, will discuss relational data bases for the PC, at the next meeting of the BNL Microcomputer Club, on Thursday, January 19. O'Reilly will compare the current, popular PC relational data bases and point out specific trends in the PC data base industry. A question and answer period will follow.

All are invited to this presentation, which will begin at noon in the main conference room, Bldg. 475. For more information, contact Frank Salzano, Ext. 4458.

Cooking Exchange Meetings Cancelled

Effective immediately, all previously scheduled meetings of the BERA Cooking Exchange are cancelled due to lack of interest.

Anyone is interested in reorganizing this committee should contact M. Kay Dellimore, Ext. 2873. Remember, twelve active members are required for any BERA-sponsored activity.

PC Users Group

Symantec, Inc., will demonstrate Time Line, a powerful project management tool that allows one to plan and track both cost and project schedules, at a meeting to be held on Thursday, January 19, at 10 a.m., in the CCD Seminar Room, Bldg. 515.

Bowling

Red/Green League

K. Asselta bowled a 248/609 scratch series, T. Holmquist 226/205, D. Jesaitis 226, K. Riker 224, E. Carter 223, R. Mulderig 214/201, E. Sperry IV 207, E. Sperry 204, J. Morris 203.

Purple League

Frank Gaetan rolled a 200, Cheryl Miezianka 196. The Looney Tunes are the first-half winners.

White League

Sharon Smith had a 203, Gerry Riker 201, Nancy Erickson 188, Pat Manzella 187. Four of a Kind won the first half.

Pink League

Maryann Reynolds had a 185, Renie Rosati 179, Sandy Asselta 171.

Basketball

Week of January 2

First Game

Runaways	64	Light Source	41
P. Johnson	26	M. Fulkerson	19
R. Moran	12	P. Ratzke	12
J. Desmond	10	K. D'Amico	6
S. Gilbert	10	J. Garrison	4
B. Doty	2		
R. Meese	2		
G. Shepherd	2		

Second Game

Longshots	44	Celtics	42
T. Mayo	15	J. Gaeta	15
R. Bersak	10	D. Hogard	14
F. Malone	8	C. Edwards	7
S. Alonzo	7	P. Browne	2
S. Springston	2	M. Colon	2
J. Wells	2	N. Schowski	2

Three point shots — Bersak, Gaeta, Hogard (2)

Volleyball

Standings - Week of January 2

League I		League II	
Upfagrabs	25-2	Set-Ups	24-6
Dinkers	20-10	Fossils	23-7
Xrayted	19-8	Krush	22-8
Cannonballs	14-16	Nuts & Bolts	19-11
Phoubars	6-24	Ziegfield Vollies	11-19
Netminders	3-27	Slammers	9-21
		Upton-Ups	5-25
		Chunga's Revenge	7-23

League III		Open League	
Frazzled	29-1	Meriem's Team	24-3
MISfits	20-10	Phoenix	20-6
Printouts	18-12	Dig Your Lips	20-7
High Volley'em	17-13	Magnum	16-11
Sourcerers	16-14	Tom's Mutants	15-12
Spikes	10-20	Vollies	10-17
Good Timers	6-24	Rowdy Radicals	8-18
Renegades	4-26	Pi Chu	6-21
		Constables	0-24

Cafeteria Menu

Week of January 16

Luncheons

Monday, January 16
Martin Luther King Jr.'s Birthday
Snack bar service — 9 a.m. - 2 p.m.

Tuesday, January 17

Soup: Cream of tomato	(cup)	.75
	(bowl)	.95
Chicken à la king w/biscuit		3.00
Salisbury steak w/brown gravy & veg.		3.10
Lite-line: Salad plate		2.25
Hot deli: Grilled cheese & bacon w/soup special		2.85

Wednesday, January 17
Oriental Banquet

Soup: Shrimp egg-drop soup	(cup)	.75
	(bowl)	.95
Pork Polynesian over rice		3.10
Mandarin chicken & veg.		3.10
Lite-line: Broiled pork chop & veg.		3.00
Hot deli: Beef teriyaki on roll		2.85

Thursday, January 18

Soup: Bean	(cup)	.75
	(bowl)	.95
Veal Parmesan w/spaghetti		3.10
Baked stuffed fish & veg.		3.10
Lite-line: Broiled fish & veg.		3.00
Hot deli: Pastrami		2.85

Friday, January 19

Soup: Manhattan clam chowder	(cup)	.75
	(bowl)	.95
Salmon pasta w/veg.		3.10
Pepper steak & rice		3.10
Lite-line: Top round & veg.		3.10
Hot deli: Turkey		2.85

Breakfast specials

Tues.:	Western omelet & toast	1.45
Wed.:	Pancakes & sausage patty	1.10
Thurs.:	Egg on roll w/bacon	1.10
Fri.:	Cheese omelet on toast	1.45

In Stormy Weather:
Dial 282-INFO

Classified Advertisements

Placement Notices

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

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Employment Manager, Ext. 2882.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

3062. STAFF PSYCHOLOGIST (part-time position) - Requires a Ph.D. in clinical psychology, clinical experience in diagnosis, intervention and referral and a New York State license. Will assist the Employee Assistance Program Manager with ongoing EAP programs and program development. Must be able to obtain and maintain a security clearance. Occupational Medicine Clinic.

3063. COST PRICE ANALYST - Requires a bachelor's degree in business or accounting or its equivalent and extensive pertinent experience. Will be responsible for developing and maintaining a program of analysis and review to assure compliance of procurement actions with contractual agreements and DOE procurement regulations. Will perform cost/price analysis as required, prepare reports of findings, and make recommendations to management. Contracts and Procurement Division.

3064. PROGRAMMING POSITION - Requires a bachelor's degree in physics, computer science or the equivalent, with three to four years' computer-related experience. Responsibilities include all aspects of software projects: interface with users, specify, design, coding, debugging, testing, documenting, etc. Work involves development of particle accelerator control systems using modern languages on Apollo workstations. Knowledge of C and UNIX is helpful. (Reposting of Job #3057) Alternating Gradient Synchrotron.

3065. TECHNICAL POSITION - Requires AAS in electronic technology or equivalent. Previous experience with electronic test instruments, high voltage and/or high current power supplies essential. Familiarity with computer operations highly desirable. Duties will include the testing of cryogenic magnets. Shift work may be required. Accelerator Development Department.

Motor Vehicles & Supplies

87 MAZDA 626-LX - a/t, a/c, p/s, all power, excel. cond., $9,000. 929-4622.

86 HONDA CIVIC SI - h/b, 5-spd., 50k mi., am/fm cass., sunroof, new tires, muffler, clean in & out, $6,500. Chris, Ext. 2022.

84 TRANS AM - V-8, 305 eng., p/s, p/b, a/c, T-top, excel. cond. 928-9109.

84 CHEVY S-10 PICKUP - 2wd, 4-spd., black, 3" lift, stereo, bucket seats, 51k mi., $3,500. Jay, Ext. 2172 or 751-0538.

82 VW RABBIT - 4-dr., 4-spd., am/fm, good cond., $995. Mark, Ext. 4289 or 281-5060.

81 PLYMOUTH CHAMP - am/fm cass., sunroof, 58k mi., good cond., $1,200. Harley, 718-738-7113.

81 HONDA CIVIC 1500DX - 63k mi., blue, runs well, $1,200 firm. 289-8988 eves. & wknds.

80 OLDS OMEGA - 4-cyl., 2-dr., p/s, p/b, a/c, am/fm cass., 4-spd., new battery, radiator tuned, excel. cond., $1,400. Franz, Ext. 7103.

80 BUICK SKYLARK - sedan, V-6, 2-dr., a/t, 76k mi., good cond., $1,300 neg. Rulon Mayer, Ext. 3851.

80 MERCURY ZEPHYR - 2-dr., 4-cyl., 4-spd., good cond., $525 neg. John, 744-4386.

80 MONTE CARLO - V-6, 2-dr., a/t, p/s, p/b, a/c, needs work, best offer. Ext. 2498 or 472-9349.

80 JEEP J-10 PICKUP - 6-cyl., 4x4, runs well, good cond., 878-0516 after 5 p.m.

79 HONDA CIVIC - h/b, 92k mi., am/fm cass., new tires, starter, brakes, water pump, etc., good cond., make offer. Ext. 3583 or 3204.

79 PONTIAC GRAND PRIX - V-6, p/s, p/b, am/fm cass., new exhaust, $975 neg. 744-4162.

74 FORD ECONOLINE VAN - green, runs, asking $300. Keith, 474-3863.

71 FORD VAN - 8-cyl., a/t, runs well, needs minor work, reliable, not pretty, asking $175. D. Lorenzo, Ext. 4446.

71 BUICK SKYLARK - new tires, battery, 350 eng., V-8, good cond., $400. Mike Colon, Ext. 2907.

68 FORD FALCON - 4-dr., 6-cyl., runs well, new parts, $200. Ed, Ext. 5262.

HONDA CRX WHEELS - 2, brand-new, $20 ea. 924-3082.

CAP - for full-size pickup truck, long-bed, $75. Frank, Ext. 2022 or 399-4480.

TIRES - Sears Roadhandler G.T., 225x70x15, w/w, good cond., 4/$70. Larry, Ext. 4821.

Boats & Marine Supplies

17' SPORTCRAFT BOWRIDER - 1981, deep V, 470 Mercruiser, I/O, full canvas, trailer, life jackets, anchor, $5,000. Rod., 878-1580 after 6 p.m.

MARINE C.B. ANTENNA - 8', w/lay-down base, hor. or vert. mount., $20. 298-4172 after 6 p.m.

OUTBOARD MOTORS - antique, 40 yrs. old. 924-3082.

GAS CANS - 12 gal., outboard, $25 ea. JoAnn, Ext. 4120.

Furnishings & Appliances

DRESSERS - 2, 4-drawer, w/corner desk, wood, $50; bed, twin canopy, dark pine, $85; yellow braided oval rug, 5'x8½', $45. 286-0259 after 4 p.m.

DRESSER - juvenile, drawers & bookshelf combination, like new, $50. Paul, Ext. 3308.

CHAIRS - 3, maple, office, 1 swivel, 2 armrest type. $15 ea.; hutch, oak, MLU, 48", excel. cond., $400. 924-3082.

COFFEE TABLE - rectangular, 21"x55"x15"h, glass top, w/chrome legs, excel. cond., $35. 473-7667.

BED - Sterns & Foster, king-size, good cond., $100. 286-1855.

TABLE - drop-leaf, pine, $40. 589-0625.

DRESSER - w/mirror, hardwood, pecan finish, good cond., $100. Scott, Ext. 3369 or 758-7114.

TETE-A-TETE - Kaufman-Allied, w/cushions, never outside, excel. cond., $25. 298-4172 after 6 p.m.

FURNITURE - twin-size canopy bed, $100; dresser w/mirror, $100; 5-drawer dresser, $100; sofa bed, $40. Ext. 5403 or 821-3373.

Tools, House & Garden

SNOW PLOW - for ride-on lawn mower, $35. JoAnn, Ext. 4120.

STORM DOORS - 2, brown, 32⅜"x79½" & 30¼"x79½", $25 ea.; storm windows, 3, brown, 36"x42¾", $20 ea. Bill, 472-4684 after 6 p.m.

BASEBOARD HEATERS - 3, portable, 4', $35 ea.; large refrigerator, $20; kerosene heater, 18k Btu, $20. 718-343-0189.

Sports, Hobbies & Pets

FISH TANK - 55-gal., w/48" stand, 2 pumps, heater, slate bottom, plus misc. equipment, $150. Vicki, Ext. 5205.

HEALTH CLUB MEMBERSHIP - Jack LaLanne Olympic Gold, lifetime, lose those holiday pounds, $500. J. Laurie, Ext. 2907.

WEIGHT BENCH PRESS - new, $45; old mahogany piano-roll cabinet, 45"hx23"wx16½"d, good for music sheets or tapes, $50. 878-6637.

SKI RACK - holds 6-pr. skis, w/built-in locks, excel. cond., over $100 new, asking $40. 751-8403 after 6 p.m.

EXERCISER - woman's, sit down, good cond., $10. Mike, Ext. 2907.

TIRE - for dirt bike, brand-new, $15. 924-3082.

WARM-UP SUIT - Prince, unisex, size M, $10; new tennis sneakers, Prince, Nike, Adidas, Head, woman's size 8, call for prices. 589-0625.

SEWING MACHINE - Sears Kenmore, portable, zig-zag plus many attachments, excel. cond., $50 firm. Louise, Ext. 3988.

HOME SPA - Bubble Bath, new $89, sell for $35. Frank, Ext. 2022 or 399-4480.

HOCKEY SKATES - size 5, good cond., $25. Bob, Ext. 5286.

ROWING EXERCISE SYSTEM - variable tension, good cond., $20. 298-4172 after 6 p.m.

Audio, Video & Computer

PRINTER - Star Gemini 10X, dot matrix, $75. 473-2473.

CAMCORDER - Sony, 8mm, w/accessories, compatible w/any video system, excel. cond., $675. Paul, 727-4859.

STEREO - Sony, am/fm, recorder, detachable speakers, $50. Ext. 3206.

TV - antenna, like new, $20. JoAnn, Ext. 4120.

TV - Sanyo, B&W, 12". works great, only $40. Bruce, Ext. 2450 or 473-8817.

Miscellaneous

POCKETBOOK - leather, black, unique, new $150, asking $35; down ski jacket, woman's, new $135, asking $40, excel. cond. Ext. 7722.

OPERA - 2 tickets, Don Carlo at the Met, Feb. 18 eve., Dress Circle, $47 ea. 473-2473.

ARTS - paintings & crafts such as jade, closisonne, more. Ext. 3206.

Free

MATTRESS - king, extra firm, good cond., you transport. Vicki, Ext. 5205.

CAT - beautiful calico, female, spayed, all shots, clean, quiet, will give food, litter box, feeding bowls, prefer no children. 286-0376.

KITTEN - adorable, healthy, 12-wk.-old, need home for winter. Toru, Ext. 7751 or 3112.

Lost & Found

LOST - gold-toned Seiko watch, probably at/by gymnasium, sentimental value. Ext. 7192.

Car Pool

STONY BROOK - want daily ride to SUNY from Lab area, will share gas costs. Mary, 632-7959 or Fred, Ext. 4375.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed, sex or national origin of the applicant.

For Rent

BELLPORT - 3-bdrm. ranch, furnished, 2 baths, l/r, d/r, eik, den, garage, immed. occupancy, excel. neighborhood, $1,100/mo. + util. Fred, Ext. 3155 or 386-3446.

BELLPORT - 4-bdrm. house, 3½-baths, Jacuzzi, walking distance of schools, Bay & village, unfurn. 363-8936 eves.

MASTIC BEACH - 2-bdrm. house, screened porch, near water, large property. Tom, 360-3803 after 6 p.m.

MASTIC BEACH - 3-rm. apt., bath, kitchen, priv. ent., single or couple, $700 includes utilities. Ext. 2951.

SHIRLEY - 3 mi. to Lab., all new apt., wall-to-wall, large bdrm., full bath, large living room/kitchen combo, $600/mo. incl. util. & cable. 395-9112 eves.

KEY WEST, FL. - April 22-29, efficiency kitchenette on the Gulf, walk to town, all water sport & boat rental, health spa, pool, $750. Sheryl, Ext. 5348.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, tennis, golf, beach, pool, Jan. & Feb. $350/wk. 585-9149.

For Sale

SETAUKET - 3-bdrm. L-ranch, 2-bath, eik, l/r, d/r, rec. rm., wood floors, patio, full bsmt., attic, 2-car garage, ca/c, ⅓ acre, 3V schools, $230,000. Thomas Nolan, Ext. 5265 or 584-8339 after 6 p.m.

SHIRLEY - 3-bdrm., 2-bath Cape, large prop., immac. cond., OHW, vinyl siding, nice area, $119,900. 281-5060. Ext. 4289.

STONY BROOK - 4-bdrm. Colonial, 2½ baths, l/r, d/r, f/p, eik, 2-car garage, fenced ½ acre, new siding, windows and doors, immac., asking $199,000, principals only. 689-8605.

KISSIMMEE, FL. - 7½ acres, zoned AE5, 7 approx. miles from Disney-Epcot, build your own home or buy for speculation, fast-growing area, homeowners assn., $35,000. 407-260-1921.

PALM COAST, FL. - ¼ acre lot, 80'x125', 5 mi. to Atlantic Ocean, 24 mi. N. of Daytona Beach, water drainage & sewage util. in, $1,995 & assume loan or $11,995. Thomas Nolan, Ext. 5265.

Wanted

REFRIGERATOR - table-top. John, Ext. 7671.

ROOMMATE - Ridge, 10 min. from Lab, $310/mo. + util. Ext. 3382 or 924-2865.

CHILD CARE - for wonderful 18-mo.-old, must be loving and responsible, my home or yours, 4 days/wk. Ext. 7192.

Classified Ad Policy Deadline is 4:30 p.m. Friday for publication Friday of the next week.