



Robert Starrett (center) will chair the new Employee Relations Committee. Other members of the committee are (from left) Anita Lewis, Roger Bailey, Frank DeVito, Vincent Lodestro, William Lenz and Louisa Morrison.  
—photo by Reben

## BNL Lecture: The Oil Blues

In the years since the 1973 oil embargo, our dependence on imported oil has grown, not declined. Crude imports have risen from 3.2 million barrels per day (mbd) in 1973, to 6.2 mbd in 1978; imports represented some 42% of total oil supply. More serious, however, is the fact that our dependence on Arab OPEC countries has risen from 27% of crude imports in 1973 to 46% in 1978. But here in the Northeast, about 90% of crude oil input to refineries is from foreign sources. Yet we are almost three times as dependent on oil, than the nation as a whole for, electricity generation. And, on Long Island, 90% of our energy supply is oil, as opposed to 62% for the region, and 45% for the U.S.

This situation will be the subject of a BNL Lecture, "How Will The Northeast Survive the Next Oil Embargo?" by Peter Meier, on Wednesday,



Peter Meier

day, March 26, at 8:00 p.m., Berkner Hall. Meier is head of the Division of Regional Studies at the National Center for Analysis of Energy Systems.

Meier says that "while it is perhaps easy to identify the problem - although it is by no means clear that the essential facts are recognized by those who ought to know - solutions are far more difficult." He maintains part of the difficulty is that over the short run, there are no solutions. Even over the long, run, it may just be that the nation as a whole would be best off by simply letting the region die a

natural death, just like Britain and France with industrial areas that outlived their usefulness. All of the popular panaceas - imports of Canadian hydro-power to replace the need for nuclear, increased wood use, solar heating systems - are simply not going to make a significant difference over the next ten years, no matter how much money we throw at them, he says.

In the event of a deep embargo, federal allocation rules would attempt to equalize the shortfalls among regions, especially gasoline. But Meier notes that we in the Northeast are the only ones to use a lot of residual oil as a utility and industrial fuel, so allocating shortages among ourselves is not going to help very much. And because of the deficiencies of the inter-regional power grid, there are also limitations as to how much regions with excess coal capacity can send us in the way of electricity, especially if an embargo were to last for some time.

What can we do? Meier says "clearly the most sensible solutions are not yet politically acceptable, although ultimately there can be little doubt that complete deregulation of energy prices, coupled with stiff increases in federal taxes and an "energy stamp" program to offset the impact on the poor (perhaps modelled on the food stamp program) are inevitable."

Peter Meier has headed the Division of Regional Studies at the NCAES since January 1979. He holds a Ph.D. degree in environmental engineering from the University of Massachusetts and degrees in urban geography and regional planning from the Swiss Federal Institute of Technology and Vanderbilt University. Before coming to Brookhaven in 1975, he spent a year as a Guest Lecturer at the University of Karlsruhe, West Germany, and four years with a consulting engineering and planning firm in Massachusetts. When Meier first joined the Laboratory staff, he was responsible for energy facility siting. He later became involved with the development of integrated analytical frameworks for energy-economic-environmental relationships.

He has served as an advisor to the National Commission on Air Quality, the International Institute for Applied Systems Analysis, and the Great

(Continued on page 2)

## The Good News And The Bad

Lab Director George Vineyard told supervisors at a meeting in Berkner Hall last Friday that he had both good news and bad news in regard to personnel and salary problems. He referred to the report of the Schwarzschild committee and to the worsening financial situation.

The bad news concerned future budgets. For FY 1981, which begins October 1, 1980, DOE has indicated what funds BNL can expect in most areas, but not all, said Vineyard. Based on firm figures given to the Laboratory, as well as estimates of the response to appeals for more money in certain areas, support expected from other agencies, and the effects of inflation, the Laboratory has determined that some reduction in force will be necessary.

Vineyard said, "the reduction will be achieved by accepting attrition wherever possible, by not renewing some term appointments that expire this year, and by a limited number of layoffs before the end of the current fiscal year." He estimated the total reduction at 100 jobs, which includes 30 layoffs.

This picture is complicated by the fact that President Carter announced he will further reduce the 1981 budget already submitted to Congress, and on which the BNL reduction in force has been predicated. As of this writing, it is not known just how these new budget cuts will affect BNL, but Vineyard said "it is almost certain some of it will trickle down to us." In that case, additional layoffs may be required.

Vineyard stressed that "as soon as it is feasible, individuals who have to be laid off will be notified and, at that time, we will make every effort to relocate them elsewhere in the Laboratory." Such relocations may be achieved by placement in research programs not affected by budget cuts.

In turning to the good news, Vineyard spoke of the Schwarzschild committee report, and what action the Laboratory is taking on its recommendation. The committee was appointed last November to examine the wage and salary structure and any inequities therein, to recommend changes needed to maintain our competitive position in the market, and to look into employee morale. The report dealt with all nonbargaining unit employees, except scientific and senior administrative staff. (Policies concerning the latter group are now under review by the Hudis committee).

The Schwarzschild committee interviewed employees from major units of the Laboratory, obtained detailed information on salary profiles here and elsewhere, made site visits to other labs and institutions, and studied relevant national surveys.

They identified three major areas of concern: pay inequities, salary structure and salary review procedures, and communications.

Although the committee was not able to study all classifications, they did identify several areas where pay inequities existed and recommended that further detailed studies be carried out across the board. Vineyard indicated that such studies were now under way and as the areas of pay inequities were pinpointed, rectification would be made. Such adjust-

ments would be reflected in the next salary review, effective October 1, 1980.

To improve the salary structure and review procedures, a consultant has been engaged to provide an objective view and assist Personnel in meeting the goals of the committee's recommendations. The new salary structure and classification guidelines will be ready for use at the upcoming rate review.

The committee recommended important additions to supplement the present Open Door Policy, and Vineyard announced several steps that have been taken:

- Peter Paige, Assistant Manager, Personnel and Labor Relations, has been appointed the Employee Relations Counselor. His job is to assist all nonbargaining unit employees in the resolution of employees' work-related



Peter Paige

problems. Employees are encouraged to contact him by phone, mail, or personal visit.

- An Employee Relations Committee has been established. Consisting of a chairman, and six members, the committee will be responsible to the Director and will help employees with work-related problems not resolved by department supervisors, or the Employee Relations Counselor. Vineyard stressed that the committee would supplement the existing supervisory network, and not supplant it.

The committee will be chaired by Robert Starrett, a newcomer to Project ISABELLE, who has had broad administrative experience at Argonne, in private industry and on the staff of the Director of Energy Research, DOE. Employees wishing to present a problem to the committee should first contact the chairman. Committee members are appointed for one year and a new slate of members will serve each succeeding year. (See box).

- A new statement on Employee Relations Policy has been adopted. A first draft of the pamphlet was distributed at the supervisors' meeting and Vineyard said that a final version would be given to all employees shortly. In addition to the above, the pamphlet indicates other avenues through which complaints may be resolved or questions answered: the Affirmative Action Assistant to the Director, Harvey Thomas, the Women's Program Coordinator, Janet Whitehead, as well as the departmental Affirmative Action Representa-

(Continued on page 2)

## Meeting On Micrographics



Doug Humphrey

An Executive Committee meeting of the DOE Contractors Micrographics Association was held at BNL last week. Besides conducting a general business meeting, they met to discuss preparations for the 8th Annual Conference which will be held here October 29-31. Nicholas Parrinello (Accelerator), at head of table, is chairman of the Association; and to his left is Ken Boehm (Graphic Arts) a member of the Association. Among other things, this organization was established to promote the interchange of micrographics information and to encourage the development and evaluation of new micrographic applications, techniques and equipment.

## News

(Cont'd)

tives, are available to help with problems in the equal opportunity area. The Tune-In program also continues in force.

- To further improve communications, the Director requested that departments hold information meetings on a regular basis.

- A training specialist, William Hempfling, has been added to the staff of Personnel. He will have supervisory training as one of his major duties.

Dr. Vineyard said the Laboratory places a high value on its employees and their contributions and, "in spite of the gloomy financial picture," will do everything in its power to see that they receive fair compensation. He emphasized that implementation of the new policy will be monitored continuously to maintain a healthy, ongoing program of benefit both to individuals and to the Laboratory as a whole.

## Employee Relations

## Counselor

Peter Paige  
(Personnel) Ext. 2885

## Committee

Robert H. Starrett  
(ISABELLE) Ext. 4907

Roger C. Bailey  
(PE) Ext. 2491

Frank DeVito  
(App. Math.) Ext. 3976

William E. Lenz, Jr.  
(Phys.) Ext. 2422

Anita J. Lewis  
(Bio.) Ext. 3389

Vincent Lodestro  
(Accel.) Ext. 4592

Louisa Morrison  
(S&EP) Ext. 4208

## Oil

(Cont'd)

Lakes Basin Commission study of Coastal Zone Siting. Meier teaches engineering economics for the American Society of Engineers Continuing Education program, and is active in several professional organizations.

A buffet supper is served at 6:30 p.m. at the Brookhaven Center before the lecture. Many find it convenient and it is a pleasant way to meet members of other departments. Reservations for the buffet should be made in advance by calling Ext. 3541 before 5 p.m. on the day of the lecture.

## CREF Values

September	44.60	October	41.18
November	42.56	December	43.19
January	45.37		

February \$44.59

## BERA Election

Voting for the 1980 BERA Board election will take place during all of next week, March 24 through 28.

## Schedule

Day	Location	Hours
Mon.	Cafeteria	11:30 a.m. - 1:00 p.m.
Tues.	Cafeteria	11:30 a.m. - 1:00 p.m.
Wed.	Cafeteria	11:30 a.m. - 1:00 p.m.
Thurs.	Cafeteria	8:00 a.m. - 9:00 a.m.
Thurs.	Bank	11:00 a.m. - 3:00 p.m.
Fri.	Bank	11:00 a.m. - 3:00 p.m.

## Candidates

John Brennan, Plant Engineering  
Dennis Klein, Accelerator  
Michael Losquadro, Applied Math  
Rosalie Piccione, Contr. & Proc.

All eligible voters (including employees of BNL, AUI, DOE, and all permanent on-site employers) will elect two of the above four candidates to serve on the BERA Executive Board for a period of three years.

Employees who will not be on-site during voting week, because of business trips or other reasons, may submit absentee votes by sending a signed memo with candidate selections to BERA Board President Gerald Levine, Building 535. For votes to be valid, memos must be received no later than noon on Friday, March 28.

## NSF Opening

The Engineering and Applied Science Directorate of the National Science Foundation seeks a senior scientist or engineer for a two-year assignment to Washington as Federal Laboratory Liaison. The purpose of the position is to facilitate the transfer of technology generated by national R&D laboratories to meet the needs of the public and private sectors, and to integrate the activities of the Technology Transfer Consortium into the Federal Laboratories Program. Further information is available from the Office of Scientific Personnel, extension 3338.

## Selected Reading

New Sci. 85 (1197), March 6, 1980

How to survive in the scientific jungle. Advice to a young scientist. P.B. Medawar. 757

Phys. Today 33 (2), February 1980

Women in physics: Unnecessary, injurious and out of place? V. Kistiakowsky. 32-40

Sat. Rev. 7 (6), March 15, 1980

Portraits of four Chinese. R.S. Anson. 20-3

Science 207 (4434) February 29, 1980

Testing for cancer risk. G.B. Kolata. 967-9

Diabetes 29 (2), February 1980

Defective regulation of  $Cl^-$  permeability in islets of diabetic mice [C57BL/KsJ(db/db)]. O. Berglund and J. Sehlin. 151-5

## Making Wine: Part II

This is the second of a two-part series on a wine making venture by a group of BNL employees, Tom Dickinson, John Millener, Vinnie Racaniello, and Ernest Warburton. Last week's article dealt with selecting grapes and initial stages in making wine.

## Aging

Since September, the wines have been sitting in everyone's cellars. So for months now, sediment has been settling out, and the wines have been periodically racked, or siphoned, from container to container. Also during this time, other processes occur such as bacterial fermentation, enzyme activity and oxydation reactions. All these affect the flavor, aroma and other qualities of the wine.

Says Dickinson, this is where the home winemaker has an advantage over most commercial winemakers. Commercial winemakers cannot afford the time and the slight risk of something going wrong, so they generally clear, filter and stabilize their wines as soon as possible. The amateur watches his wine, sniffs it and tests it all through the process, and has a good chance of producing something more interesting.

The white wines will be bottled in April. But Warburton, together with Millener, will soon put five gallons of red into an oak barrel to age for another six to twelve months before bottling. The remainder of their reds will stay in the large glass containers until bottling time.

According to Warburton and Millener, professional wineries age all their red wines in oak for a period of time. Oak gives the wine a more interesting flavor. Warburton described it as a vanilla taste. Oak contains the chemical vanillin.

Of course, that flavor is not desirable in all wines. Most white wines are enjoyed for their light, fresh fruity flavor. And that is also the reason white wines are generally aged for less than a year.

The group says that their reds will not be ready to drink for another two or three years. However, everyone plans to taste test right along.

## Price and Quality

Dickinson, who is generally recognized as the most experienced in the group, estimates that their wine has cost them \$1 a bottle, not including their labor (and they certainly don't call it that). He thinks it will be better than most California jug wines and comparable to \$5 New York wines. Compared to classical European and California wines? Different, he says.

Part of the reason New York wines are different is that many are made from grapes that are different from those used in Europe and California. In the late 1800's European and Californian vineyards were devastated by the aphid, *Phylloxera vastatrix*. Eastern American stocks are resistant. To save their vineyards, Europeans and Californians grafted their vines to the roots of eastern American stocks. So except for differences in growing conditions, Europe and California produce essentially the same kinds of wine. Most New York wineries use hybrids of *vinifera* and eastern American stock, not *vinifera* simply grafted onto eastern American root stocks.

The group's total output from grapes to mature wine is estimated at over 500 bottles. Although it's still early to tell, Dickinson expects the wines will be good. He estimates that

in all of his years of wine making, he has thrown away only 2%. Contrary to what one might expect, the "failed" wine did not turn to vinegar, which Dickinson says is actually easy to avoid. Instead, it had what he calls an off-flavor, similar to a very cheap champagne.

Racaniello plans to deliberately turn some of his wine into wine vinegar. He is waiting for warmer weather before he starts. According to Racaniello, making wine vinegar is very straightforward. First, add a little starter, or "mother" (as it is called in the trade), to wine that has not been pasteurized. Cover the container top with cheesecloth to keep out insects, and leave in a warm room. In two to four weeks, the wine will turn to vinegar. A good sniff will confirm when it's ready. Racaniello prefers homemade vinegar to commercial wine vinegar. He describes it as less acidic and very distinctive.

In spite of their enthusiasm for the art of home wine making, members of the group do buy commercially made wine. Dickinson, in particular, likes to compare his wine with store bought wines. Also, the group cannot make enough variety to satisfy their expanding tastes.

They think there are many good buys on the market, and some of the best values are wines from California, Italy, and eastern Europe. Still, there is nothing quite so satisfying as going down into a cellar and picking out a bottle with your own special label on it.

## Dandelion Wine

1 gallon dandelion flowers (petals only, no greens)  
1 gallon boiling water  
Peel of a lemon  
Peel of an orange  
4 pounds sugar

Steep the flowers in the water for one day. Remove flowers; set aside. Add lemon and orange peel and sugar. Stir well until sugar has dissolved. Put in flowers. Add a little yeast (preferably wine makers yeast, which can be purchased at a wine making equipment and supply store - check phone book). Allow to ferment. When fermentation has stopped (clue: in about 3 days, solid matter floating at the top will settle to the bottom), bottle and cork. Age 6 months to 5 years.

—Ernest Warburton

## Workshop Notice

An intralaboratory, one day workshop on the use of ion beams in materials research is planned for early April. Anyone interested in taking part in this workshop should contact Gerhard Wolf Ext. 4349, or W.E. O'Grady Ext. 2829.

## Quotable Quotes

GIAMATTI, A Barlett "The university must be a tributary to a larger society, not a sanctuary from it." (Time 112:89 Oct 2, 78)

MOYERS, Bill D "It isn't wisdom or intelligence that influences a President, it's opportunity." (Newsweek 91:22 April 17, 78)

FRIEDMAN, Milton "There is no such thing as a free lunch. That is the sum of my economic theory. The rest is elaboration." (Reader's Digest 112:190 Feb 78)

KISSINGER, Henry Alfred "The longer I am out of office, the more infallible I appear to myself." (San Francisco Chronicle This World 1977:2 Oct 16, 77)

JARVIS, Howard "Everyone is entitled to my opinion." (Time 111:21 June 19, 78)

—from the Dictionary of Contemporary Quotations

# BROOKHAVEN BULLETIN

Published weekly for the employees of BROOKHAVEN NATIONAL LABORATORY

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CARL R. THIEN, Public Relations Officer

## Teacher Wanted

The Upton Nursery School expects to hire for the 1980/81 school year a certified teacher for a class of four-year olds, which meets two mornings a week. Those wishing to apply should do so, in writing, before April 23, to: P.O. Box 324, Upton, NY 11973.

## Arrivals & Departures

### Arrivals

Daniel A. Kaczmarezyk.....Accelerator  
June B. Martino.....Energy & Env.  
Christine M. Moore.....Nuclear Energy  
Bruce D. Riska.....Chemistry  
Morris M. Strongson.....Applied Math.  
Joseph F. Zebuda.....Accelerator  
William L. Schrack.....Energy & Env.

### Departures

Camille A. Glick.....Reactor  
Gerald P. Hoffman.....Contr. & Proc.  
Brijesh Vyas.....Nuclear Energy  
Walter York.....Accelerator

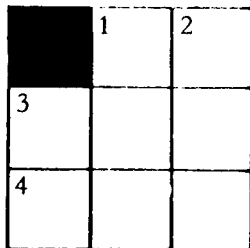
## IBEW Meeting

Local 2230, I.B.E.W. will hold its regular monthly meeting on March 27, 1980, at 8:00 p.m. in the Knights of Columbus Hall, Railroad Ave. Patchogue. There will also be an afternoon meeting at 2:00 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the President's report.

## Swimming Pool

On Wednesday, March 26, evening hours at the swimming pool will be from 5:00 to 7:30. Normal schedule, 5:00 to 9:30, will resume the following evening.

## Cross-Number Puzzle



(There are no 0's.)

### Across

- Half of 2 down.
- Each digit is 2 greater than the one before.
- The sum of the digits is at least 3 greater than the sum of the digits of 1 across.

### Down

- The first digit is greater than the second digit by the same amount as the second digit is greater than the third digit.
- Twice 1 across.
- An odd number.

(Solution on page 4)

—from a Diversity of Puzzles by E.R. Emmet. Reprinted with permission from Harper & Row, Publishers, Inc.

## NY City Trip

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, April 2. Departure will be at 7:55 a.m. from the Patchogue LIRR station. Round-trip fare for adults is \$2.45, children under six years ride free.

Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York 11973, no later than Thursday, March 27. Make checks payable to "Brookhaven National Laboratory." Your tickets will be given to you on the train. Refunds will be made only if cancellations are received by the Friday preceding the scheduled trip.

## Cafeteria Menu

### Week Ending March 28, 1980

**Monday, March 24**  
Potato leek soup (cup) .45  
(bowl) .55  
Turkey à la king 1.45  
Eggs à la Reine 1.40  
Hot Deli - Sloppy Joe (on bread) 1.40  
(on roll) 1.50

**Tuesday, March 25**  
Split pea soup (cup) .40  
(bowl) .50  
Chinese pepper steak on rice 1.45  
Poached fillet & 1 veg. 1.45  
Hot Deli - Pastrami (on bread) 1.45  
(on roll) 1.55

**Wednesday, March 26**  
Cream of spinach soup (cup) .45  
(bowl) .55  
Fillet of fish Parisienne 1.45  
Stuffed pepper w/spaghetti 1.50  
Special 8-foot hero .70 per inch

**Thursday, March 27**  
Beef barley soup (cup) .40  
(bowl) .50  
Meat cakes & peach fritters 1.45  
Chicken fricassee 1.45  
Hot Deli - Roast beef (on bread) 1.45  
(on roll) 1.55

**Friday, March 28**  
Fish chowder (cup) .45  
(bowl) .55  
Barbequed spare ribs & 1 veg. 1.50  
Breaded flounder fillet & fries 1.45  
Hot Deli - Beef & cheddar wrap 1.45

## Clinic Notice

The Industrial Medicine Clinic will be closed for a staff meeting once a month for one hour. This closing will be the last Friday of each month from 11:00 a.m. to noon. The Clinic will be open for emergencies during this time. The first of these meetings will be March 28.

## Bowling

### Pink League

Audrey Blake had her best night this year with a 195/171/496. Renie Rosati also had a good series with 171/162/160/493. High games were bowled by Marge Stoeckel 188, Pat Jencius 175, Deb Johnson 175, Helen Keeley 174, Mary-Grace Meier 163.

### Red League

The 76'ers won 11-0 over the Blue Jays with R. Larsen bowling a 268 for a 607-658 series. The Sandbaggers took 11 from the Trouble Shooters. E. Meier grossed 628, K. Riker 201 game and C. Bohnenblusch 200. The Old Timers took 3 from the Pinball Wizards with R. Adams bowling a 202/630 gross and W. Reams 606 gross. The Strangers won 8-3 over This Isa Team. E. Sperry IV (211) grossed 664, T. Romano 647 gross, R. Meier, Jr. 639 gross and R. Barberich a 207 game. The Designers bowled unopposed due to a postponement. J. Ferrero grossed 655, A. Pinelli (227) 643 gross, C. Zavesky a 210 game.

### Green League

The Old Timers II took 5 from the Sparks. B. Galen had a 218. The Pinball Wizards

# it's Spring!

## Cooking Exchange

"Ethnic Easter Edibles" is the theme of the next Cooking Exchange meeting on Wednesday, March 26, at 12:30 p.m. in the Recreation Building. The preparation of traditional favorites from Portugal, Russia, England and Italy will be demonstrated and tasted.

All BERA members and their families are welcome. There will be a charge of \$1 per person, and baby-sitting will be provided at 25¢ per child.

Wendy Green, 878-8952, will be happy to answer any questions.

## Volleyball

### Mixed League

#### Standings - March 10

A: No Names	12- 0
Nuts & Bolts	8- 4
High Society	7- 5
De degenerates	5- 7
Family Affair	3- 9
Thrints	1-11
B: Diamonds	9- 3
Nads	8- 4
Le Mufs	7- 5
Leftovers	6- 6
Monday Night Live	5- 7
Underalls	1-11

### Open League

In interdivision play on March 12, the match between the respective division leaders provided the only upset.

Spikers beat Over the Hill Gang  
21-2, 8-21, 21-15

Toga over Monday Night Terrors  
21-8, 21-2, 21-14

Bumps took Eddie and the Phoubars  
21-6, 21-7, 21-6

Moles beat Players Pool  
21-11, 21-5, 21-8

## Mixed Golf

Anyone interested in forming a mixed golf league (one male and one female per team) contact Bob Wayte, Ext. 4417, Bldg. 750.

took 8 from the Old Timers. The Blue Jays were dumped for 11 by the 76'ers. The Trouble Shooters also lost 11 to the Sandbaggers. The Light Source took 7 from the Phoubars.

### Blue & Gold League

Clearwater has the lead by only 1 point with Mary Scheidet rolling a 176, Marjane Gillette 174, Lil Cahill 166, Dru Hanrahan 155 and Audrey Bangel 152. Joe Sheehan had a 526 series and Walt Milian a 201/538 series.

### Purple & White League

The Flounders remain in first by 5 points with the Draftecs in second and the Sick Six in third. Ken Riker had high game for the men with a 232 and Gail Shuman for the women with a 202. Other good games were bowled by Ray Tice 225, Marshall Bull 213, Jim Griffin 213, Ed Sperry 211, Ben Belligan 204, Gerrie Riker 195, Mary-Grace Meier 183, Kathy Griffin 180, Joyce Pinelli 177.

### LI Tournament

After three weeks of bowling, the BNL team is in 12th place in the Long Island Industrial Bowling Tournament. Jim Morris bowled a 247 for 581 scratch wood.

## Reports Available

The following reports are now available to the Laboratory Staff and to Affiliates of the DOE, AUI, and NRC. Others may purchase the reports from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. Staff members should call Ext. 3484.

BNL-NCS-50717 \$4.50  
Panel on Reference Nuclear Data and Surveys of Reference Data Requirements. T.W. Burrows and S. Pearlstein

BNL 50831-IV \$10.75  
Design Guide for Category IV Reactors Liquid Metal Reactors. W.J. Brynda, et al

BNL 50901 \$4.50  
An Energy and Economic Evaluation of Policies for Accelerated Investment in Efficient Automobiles. W. Brooks, et al

BNL 50903 \$7.25  
Annual Fuel Usage Charts for Oil-Fired Boilers. A.L. Berlad, et al

BNL 50908 \$8.00  
Geology of Oil and Gas in Western Siberia. A.E. Kontorovich, et al

BNL 51036 \$4.50  
Alternate Materials of Construction for Geothermal Applications. Progress Report No. 18, January - March 1979. L.E. Kukacka, et al

BNL 50939 \$4.00

### Second Edition

Normal Incident Solar Radiation Measurements at Upton, New York. J.G. Cottingham

BNL 50940 \$5.25  
A Demand Elasticity Representation: Methodology and Calibration. A.S. Kydes

BNL 50964 \$4.00  
Trifluoroethanol. S. Silberstein

BNL 50977 \$6.50  
Annual Highlights Environmental Programs of the Department of Energy and Environment. B. Manowitz, Associate Chairman

BNL 51000 \$9.25  
Brookhaven Highlights - July 1976 - September 1978.

BNL 51043 \$4.50  
Health Effects of Coal in the National Energy Plan. S.C. Morris, et al

NUREG/CR-0936  
BNL-NUREG-51045  
Recommendations for Meteorological Measurement Programs and Atmospheric Diffusion Prediction Methods for Use at Coastal Nuclear Reactor Sites. G.S. Raynor, et al

BNL 51047 \$6.50  
Development of Fuel Cell Technology for Vehicular Applications. Annual Report, October 1, 1977 - September 30, 1978. J. McBreen, et al

BNL 51050 \$4.00  
Carry-Over Grain Stocks as an Emergency Fuel. H. Davitian and H. Serry

BNL 51053 \$4.50  
Fuel Cell Applied Research: Electrocatalysis and Materials. Quarterly Report, July 1 - September 30, 1978. S. Srinivasan, et al

BNL 51058 \$6.00  
Analytical Summary of Experimental Data from Two Years of Hourly Sequential Precipitation Samples at Brookhaven National Laboratory. G.S. Raynor and J.V. Hayes

BNL 51066 \$5.25  
Safety and Environmental Protection Division Progress Report for the Period January 1, 1976 - December 31, 1978. Compiled by J.W. Baum

BNL 51071 \$4.00  
DOE Interlaboratory Working Group for Data Exchange (IWGDE). Progress Report - October 1978. Edited by C.M. Benkowitz

BNL 51078 \$7.25  
Proceedings of the Fifth U.S.-U.S.S.R. Symposium on Superconducting Power Transmission. (Held at Brookhaven National Laboratory, Upton, New York 11973, September 5-6, 1978). Edited by S.J. Amoretty

BNL 51080 \$4.00  
Polyketones and Polysulfones for Conservation in the Ethylene Polymer Industry. Progress Report No. 5, April - June 1979. M. Steinberg, et al

BNL 51086 \$6.00  
Methodology for Coding the Energy Emergency Management Information System. J. D'Acerno et al

BNL 51097 \$4.00  
Data Base for District Heating Pipe System Design. R. Lesse, et al

BNL 51100 \$4.00  
Encapsulation of Phase Change Materials in Concrete Masonry Construction. Progress Report No. 3 (Final Report) June 1978 - September 1978. M.J. Sansone, R. Hazle and W. Horn



