# Lawrence Berkeley National Laboratory

**LBL Publications** 

## Title

LBL Newsletter

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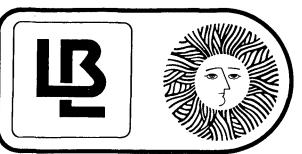
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Lawrence Berkeley Laboratory Energy and Environment Division

Division News \*

A note from *Barbara West* on Space and 189 Preparation: <u>Space</u>: The trailers are continuing to arrive and be set in place, and the furniture is being installed on the 3rd floor of Building 90. All in all, count on lots of moving in January.

APR 20 1979

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December 1978

For Reference

Not to be taken from this room

Editor:

Pub. File

Jeffrey Kessel

189s: Still no word on deadlines or format--keep thinking, and maybe even scribbling.

Dharmakaur Khalsa reports on the new Centrex telephone system: Presents are not all that Santa Claus is planning to bring us this year. When you return from Christmas vacation, you will find that the new telephone system, Centrex, is in effect. It may take a while for the new telephone sets to be installed, but Centrex, as of midnight, December 23rd will be operative on the old phones. This means that you will have direct dialing for incoming calls without any operator assistance, plus a variety of other bells and whistles that will make your telephone life easier--or more confusing.

If you were unable to make it to the telephone company training sessions, you may find you have questions concerning how to make the system work for you. Instructions will be delivered with the new sets to help you over the hump. However, keep in mind that it is a significantly different system than the one we have all been used to. If you need some help, contact your group secretary or administrator; if something seems to be out of order with your phone during the first phases of Centrex



The Annual Energy & Environment Division Christmas Party is being held Thursday, December 14, 1978, at Haas Clubhouse, Strawberry Canyon. There will be dancing, skits, treasure-hunts, door prizes, entertainment, food & drink. Donations of \$3.00 can be made in advance to Dottie Bottini (ext. 5001). operation, before you call telephone services for a repairman, check with your group secretary or administrator.

• December 15, 1978. What is the significance of this date, you ask? It is the day on which completed articles for the 1978 Energy & Environment Division Annual Report must be submitted to the appropriate editors. Take heed, authors.

### $\star$ Trips, Conferences, and Presentations $\star$

• On November 22nd, Sam Berman addressed 300 people attending a joint session of Parliament in London. Sam gave a presentation on the "Energy Efficient Society," in which he called on planners and policy makers to join the clear consensus in favor of achieving a sensible level of energy efficiency in the developed countries of the world. Sam proposed certain themes for a unified approach by the European Common Market countries, including a "New Alliance" between government, industry, and labor to work toward the Energy Efficient Society and its financial, employment, and quality-of-life benefits.

During his stay in Great Britain Sam visited the Building Research Establishment, The Institute for Tropical Studies, and The Intermediate Tech Group as a guest of the Mechanical Engineering Department at Imperial College (London).

- During November Charles Case traveled throughout Micronesia, visiting Guam, Saipan, Truk, and Ponape, and also Hawaii, in order to review and give technical assistance to the eighteen projects funded by DOE for small scale alternative energy production. DOE funded these projects during Phase I of the Appropriate Energy Program. Phase II has just started and the San Francisco Operations Office is accepting applications for grants until January 15th. For information or applications contact Charlie (x5001).
- As an outgrowth of his work on the Radiation section of the survey, "Instrumentation for Environmental Monitoring," Don L. Murphy has been working with Lawrence Livermore Laboratory helping to select radiation safety monitoring equipment for the Granite Spent Fuel Storage Test being conducted at the Nevada Test Site (NTS). Don recently attended in San Francisco an International Symposium on the Behavior of Tritium in the Environment.

On a recent trip to Nevada, Don visited the Environmental Monitoring and Support Laboratory, where he learned of their current work on the quality control of radiation measurements; the Office of Radiation Programs (Las Vegas), where he took part in a discussion of current research in assessing the radiological hazards in mining and milling (not only uranium and thorium ores, but also phosphate, iron, gold, coal and others); and the Nevada Test Site, where he toured the mine in which the storage test will take place. Don notes that he was escorted throughout this tour, including visits to the restroom.

#### ★ Appointments, Awards, Grants and Honors ★

- J. Dennis Lawrence, who recently came to work on the GRID project at LBL from Sperry Univac, won a prize for a technical paper presented at the Sperry Univac Fall Technical Symposium. The paper, "Language files and data bases--two I/O systems or one?" (co-authored by J.A. Larson and H.R. Johnson), explores the mutuality of files and data bases, and discusses the conditions under which both types of access can be supported against a single collection of stored data. Successful integration of the two types of I/O can provide cost savings to implementors and improved functionality and performance for customers.
- Dottie Bottini has recently been appointed to the LBL Advisory Committee on the Disabled. The committee's principal task will be to aid in the selection process for forty new positions for disabled persons for which funding is expected from the Department of Energy. Dottie has also recently been appointed as an Advisory Committee Member for the Contra Costa County Schools' Regional Occupational Program. This committee will review curricula and objectives for a program which prepares people for clerical and secretarial employment.
- ★ Recent LBL Reports 🖈
- TID Reports Issued lists the following reports from the Energy & Environment Division:

#### July 1978

- LBL-06873 Techniques for Monitoring Plutonium in the Environment, Jul. 1978, 39 p. Submitted to Nucl. Saf., A.V. Nero, Jr.
- LBL-06875 Value Distribution Assessment of Geothermal Development in Lake County, CA, Oct. 1977, 111 p. (UC66/479601) Std. Dist., C.W. Churchman, H.G. Nelson, and K. Eacret.
- LBL-07831 Indoor Air Quality Measurements in Energy Efficient Buildings, Apr. 1978, 22 p. Presented at the 71st Air Pollution Control Assoc. Meeting, Houston, TX, Jun. 25-29, 1978, C.D. Hollowell, J.V. Berk, and G.W. Traynor.
- LBL-07843 Motion of Particles In a Thermal Boundary Layer, Jun. 1978, 5 p. To be presented at the 3rd Intl. Workshop on Laser Velocimetry, Purdue Univ., West Lafayette, IN, July 11-13, 1978, R.W. Schefer, Y. Agrawal, R.K. Cheng, F. Robben, and L. Talbot.
- LBL-07844 Structural-Analytic Techniques for Coping with the Logistics of TSCA, Jun. 1978, 1 p. (UCll/366027). Presented at the 33rd NW Regional Meeting, Amer. Chem. Soc., Seattle, WA, June 14-16, 1978, M.J. Kland.

- LBL-07845 The Toxic Substances Control Act: A Chemist's View, Jun. 1978, 1 p. Presented at the AAAS, Pacific Div., 59th Annual Meeting, Seattle, WA, Jun. 13-17, 1978, M.J. Kland.
- LBL-07846 Prediction of Environmental and Health Effects of Chemicals, Jun. 1978, 1 p. Presented at the Pacific Div., AAAS, Annual Meeting, Seattle, WA, Jun. 13-17, 1978, M.J. Kland.
- LBL-07847 Raw Materials Evaluation and Process Development Studies for Conversion of Biomass to Sugars and Ethanol, Jun. 1978, 43 p. To be presented at the Second Annual Symposium on Fuels from Biomass. DOE Meeting, Troy, NY, Jun. 20-22, 1978, C.R. Wilke, R.D. Yang, A.S. Sciamanna, and R.P. Freitas.

#### August 1978

- LBL-06878 A Survey of Instrumentation Used for Monitoring Metals in Water, Jun. 1978, 41 p. Submitted to Am. Lab, M.S. Quinby-Hunt.
- LBL-07809 Human Disease from Radon Exposures: The Impact of Energy Conservation in Buildings, Aug. 1978, 19 p., R.J. Budnitz, J.V. Berk, C.D. Hollowell, W.W. Nazaroff, A.V. Nero, and A.H. Rosenfeld.
- LBL-07817 Design of a Mobile Laboratory for Ventilation Studies and Indoor (Rev) Air Pollution Monitoring, Apr. 1978, 56 p., J.V. Berk, C.D. Hollowell, C. Lin, and J.H. Pepper.
- LBL-07822 Air Infiltration in Buildings: Literature Survey and Proposed Research Agenda, Feb. 1978, 207 p., H.D. Ross and D.T. Grimsrud.
- LBL-07823 Mercury Emissions from a Simulated In-Situ Oil Shale Retort, Jul. 1978, 49 p. Presented at the 11th Oil Shale Symposium, Golden, CO, April 12-14, 1978, J.P. Fox, J.J. Duvall, K.K. Mason, R.D. McLaughlin, T.C. Bartke, and R.E. Poulson.
- LBL-07828 Energy Efficiency and Performance of Solid State Ballasts, Jun. 1978, 20 p. To be presented at the IESNA Tech. Conf., Denver, CO, Aug. 27-Sep. 1, 1978, R. Verderber, S. Selkowitz, and S. Berman.
- LBL-07830 Case Studies in Air Infiltration, May 1978, 22 p. To be published as a chapter in IEA Report on Air Infiltration, IEA, D. Grimsrud.
- LBL-07831 Indoor Air Quality Measurements in Energy Efficient Buildings, Apr. 1978, 4 p. Presented at the 71st Air Pollution Control Assoc. Meeting, Houston, TX, June 25-29, 1978, C.D. Hollowell, J.V. Berk, and G.W. Traynor.
- LBL-07838 Heat Transfer During Piston Compression, Jul. 1978, 21 p. Submitted to ASME Trans. J. Heat Trans., M. Nikanjam and R. Greif.

- LBL-07842 Energy Efficient Buildings Program--Chapter from Energy & Environment Annual Report 1977, Jul. 1978, 84 p.
- LBL-07854 Stable I > 0 Carbon Monoxide Laser, Jul. 1978, 13 p., R. Gerlach and N.M. Amer.
- ★ New Employees ★
- Nancy Bell and Joel Hill, both graduate students in Chemical Engineering at UCB, are working with Judd King on cleaning waste waters from solid-fuel conversion processes. This is part of an effort to ameliorate the environmental damage caused by both the extraction of oil from shale, and the liquefaction and gasification of coal.
- Denise Boudreau and Joyce Littlejohn join Nancy Schorn to help administer the Energy Analysis Program.
- Barbara Boyce is working with the Solar Group in assisting project engineers monitor the performance of LBL subcontractors working in the Solar R&D field. Barbara has previously worked as a writer and teacher.
- *Harold Boyer* is working with the Ventilation project writing reports and pamphlets.
- Tom Buckmeyer will be working with Michael Hannemann doing research on institutional, legal and economic issues involved in the commercialization of geothermal energy.
- Minna Chan will be assisting Nancy Brown in Combustion Research, working on literature searches, computer programming and preparation of graphics.
- Robert Chen joins the Survey of Instrumentation for Environmental Monitoring project to work on evaluations of instrumental methods and monitoring systems.
- Lloyd Clary, a graduate student in Chemical Engineering at UCB, is working with Scott Lynn on coal research.
- Joseph Costello, a graduate student in Physics at UCB, joins Nabil Amer for work in Applied Laser Spectroscopy.
- Gregg Cremer and Douglas Frey will be working with Ted Vermeulen on coal research. They are graduate students at UCB in the Department of Chemical Engineering.

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- Daisy Daymond joins the Data Validation Project where she will administer office and data processing support functions. Daisy is a transfer from the Accelerator & Fusion Division.
- Bruce Dexter, a graduate student in Environmental Design at UCB, will be working with the Windows & Lighting project.
- Brigitte Fitzsimmons transfers to the Energy & Environment Division from the LBL Purchasing Department where she worked on contract management. Brigitte will be working on 189s and budget for the rapidly growing Energy Information Validation Project.
- Kathleen Hudson will be working with Carl Blumstein on a survey of industrial energy conservation methods, with special emphasis on methods for improving heat transfer and finding opportunities for using these methods in California.
- Douglas Hemphill and Brian Maiorella, UCB graduate students in Chemical Engineering, will be working with Charles Wilke on the biochemical conversion of cellulose to fuels.
- *Phyllis Hillis* joins the Ventilation project to work on computer data validation for the Ventilation Data Base.
- Fred Lenherr will be working with the Passive Solar project in developing computer models of solar passive heating and cooling systems. These models will be incorporated into public-domain computer programs, and documented for public use. Fred has previous experience with a wide range of computer applications in biomedicine, gas turbine development, and robotics.
- James McMahon is transferring from the Physics, Computer Science and Mathematics Division to the Energy Analysis Program where he will work on computer modeling of energy supply and demand in the Distributed Energy Systems Project. Other areas that Jim will model include air pollution dispersion and market decision processes for new energy technologies.
- Sandy Mocco joins the Energy & Environment Division Office staff to work as secretary to *Elton Cairns*. Sandy is fortunate to begin working just before the office relocates to Building 90.
- *Gregory Morris*, a graduate student at UCB in Energy & Resources, will be working as a GSRA with *John Holdren*.
- Christopher Nyberg will be working in the Ventilation project developing the Ventilation Data Base.
- Janet Phillips is assisting in the administration of the Solar Energy Program.

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- Charles Rosenblatt is working with Nabil Amer as a Post-doctoral Research Associate doing research on Applied Laser Spectroscopy.
- William Ryan joins Joe Klems at the Windows & Lighting Project's Building Technology Laboratory to assist in research on energy-efficient building components.
- Barry Saitman joins Mark Levine for research on Distributed Energy Systems.
- Steven Schiller, a UCB graduate student in Mechanical Engineering, is working as a GSRA in the Solar Energy Program doing research on controls for solar heating and cooling.
- Noordin Shariff is working as a GSRA with Mark Horovitz in the Energy Information Analysis Project.
- Benjamin Thurston joins the Ventilation project to conduct research on ventilation and recirculation systems for energy efficient buildings. Ben has previous experience as an engineer on a wide range of U.S. Navy facilities, including Balboa Naval Hospital in San Diego.
- The Energy Information Validation project is engaged in analyzing and validating energy-related information systems, for example those concerned with oil entitlements, or the supply of various petroleum products. One means of validating this information is to send forms requesting information to knowledgeable people, e.g. oil company executives. As an alternative method of collecting information, interviewers from LBL will travel about the country meeting with informed individuals and questioning them.

The following employees are beginning work of this sort with the Energy Information Validation Project:

Kimball Baker	Mary Friedline	Elizabeth Mawson
Eileen Bleeker	Niloufer Hirschmann	Gordon Porter
Daryl Brown	Harvey Levy	Volker Schuler-Will
Charles Carey	Andrea Longpre	
R.C. Frensley	Toya Robinson	

\star 🕐 Seminars 🖈

December 19 - Bill Hogan, LLL
Tuesday
Tuesday
Studies of the Hazards Associated with Liquified
Natural Gas Usage (with 16 mm film).
4:00 pm at Bldg. 70A-Rm. 3377

Beginning January 9, 1979, the Energy & Environment Seminars will be held in Building 90, Room 3148. On Tuesdays at 4:00 p.m. except as noted.

- January 9 Aharon Nir, Weizmann Institute, Israel Tuesday "Environmental Aspects of Heat Storage in Underground Aquifers"
- January 15 Adam Heller, Electronic Materials Applications Monday Research Group, Bell Laboratory "New Developments in Photovoltaics"

January 23 - Oscar Krikorian, LLL Tuesday "Research Into Methods of Production of Hydrogen As An Alternative Fuel"

January 30 - (To be announced) Tuesday

February 6 - William Dickinson, LLL Tuesday "Low Cost Systems for Solar Heating"

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