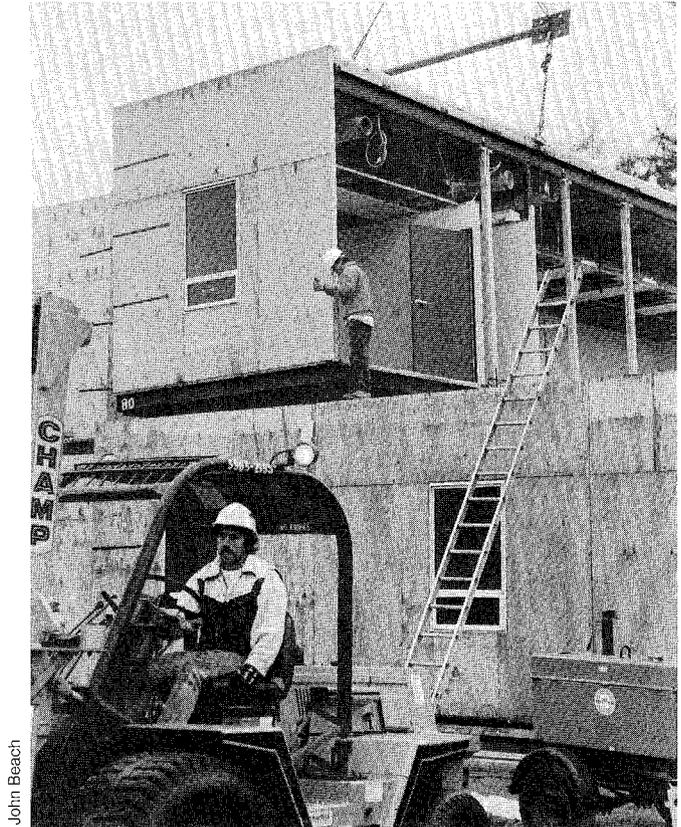
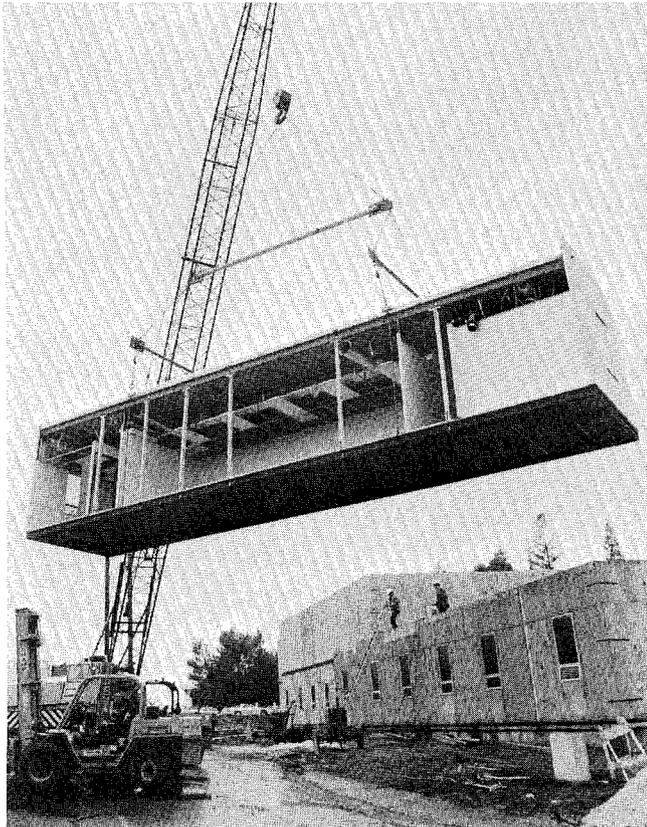




Engineering Physics Building speeds along



John Beach

by Jill Mhyre

IN JUST ONE AND A HALF days in early December, cranes pieced together the new Engineering Physics Building like a massive Lego project. P. B. Sierra Company, the contractor in charge of the construction, employed modular building methods, and completed as much of the fabrication as possible inside the controlled environment of a factory in Los Angeles. The company produced massive modules, some as large as a small house, and transported them to

SLAC on trailers. Under the management of Glen Tenney, construction workers assembled over 50 of the giant modules at a rate of about 30 minutes per module.

By using the modular building method, SLAC is saving a substantial amount of money in the production of the new building, according to Jerry Jobe, an Associate Director of SLAC, who supervised the financial and organizational aspects of the new building. The 20,000 square foot building will cost only \$1.8 million. A building of comparable size

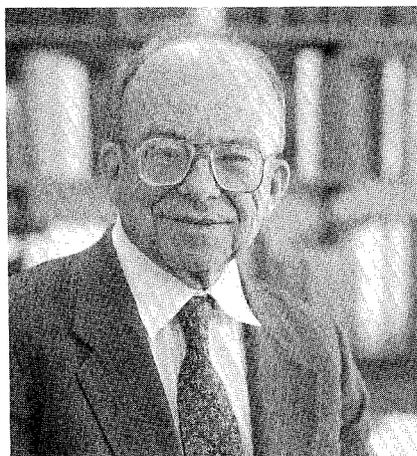
produced by traditional building methods would cost approximately \$4 million.

Planning for the Engineering Physics Building began at the beginning of last year, and SLAC awarded the contract to P.B. Sierra in the summer. The building is scheduled to be completed in February, although according to Jerry Jobe, that date might "slip due to the weather." As soon as it opens, physicists and engineers will certainly welcome the new space.

Italian Academy honors Pief

PIEF PANOFSKY, Director Emeritus of SLAC, was elected to the Accademia Nazionale dei Lincei last summer to participate as a Foreign Member in the physical and mathematical section. The Accademia is the oldest scientific academy in Europe. Founded in 1603, the society has hosted such legends as Galileo Galilei. Pief is honored to join this important group and to participate in their meetings and deliberations. He is also a member of the Russian and the French Academies of Science.

—*Jill Myhre*



Pief Panofsky

SERA elects new officers

A NEW BOARD was elected to direct the SLAC Emergency Relief Association (SERA). In existence since the late 1960s, SERA is a charitable organization that provides loans, and occasionally grants, to SLAC employees in dire circumstances.

The newly elected members of the Board of Directors are Neal Adams (SCS) and Virginia Arezone (Medical). Pat Jones (MFD) will continue as the third member of the board. David Hutchinson (CD) will serve as Secretary and Katherine Cantwell (SSRL) as Treasurer. Applications for loans are available from any of the members of the Board.

The funds for SERA are provided by the over 100 SLAC employees who make regular contributions. SERA loans are repaid through payroll deduction.

The decision as to whether to make a loan or grant is made by

the three members of the Board of Directors on a case-by-case basis. The Board would like to stress that SERA is truly an emergency organization and only considers loans or grants in circumstances where an individual or family is faced with a situation in which necessities such as rent, food, or utilities cannot be met due to an unusual situation such as illness, death, or loss of regular income. A person generally cannot receive a second loan until the first one has been repaid, and there is a limit of three loans in a six-year period. In general, loans for car repairs are not given by SERA.

As a member of the Board of Directors for the last year it has been very satisfying to help people who are in truly difficult circumstances and who have nowhere else to turn.

—*Katherine Cantwell*

Stanford Help Center services

ALL EMPLOYEES OF SLAC and their immediate family members are eligible to use the Stanford Help Center. The Help Center provides free, confidential, professional counseling services for personal, family, or job-related problems. People seek help at the Center for many reasons including: marital conflict, parenting issues, alcoholism, drug problems, caring for ill or elderly relatives, burnout, conflict with someone at work, and job stress related to organizational changes.

The Help Center is staffed by eight licensed therapists and one student intern, and is a diverse group from the standpoint of age, sex, and ethnicity including a Spanish-speaking therapist. Kevin Carr, MFCC, is in an office on the SLAC campus every Tuesday and appointments to see him can be made by calling the SLAC Medical Office at ext. 2281. SLAC employees may also schedule appointments at our office on the Stanford University campus by calling 723-4577.

Help Center counselors are also available to consult with departments that would like assistance with problems such as coping with the death or loss of a co-worker, interpersonal conflict resolution, or debriefing in the aftermath of a traumatic incident at work. For more information about the Help Center services, call 723-4577.

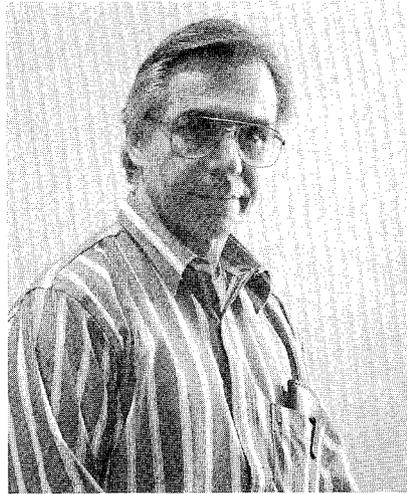
—*David Rasch*

Welcome Guests and New Employees

Rodolfo Bonifacio, SSRL, Accelerator Physics; **Tanya Boysen**, BaBar; **Alex Dragt**, Theory and Special Projects; **Dongwk Hwang**, SLD; **Arnold Massoletti**, Klystron Manufacturing; **Soon-Kwon Nam**, SSRL, Accelerator Physics; **Yossie Nir**, Theory; **Soo-Jong Rey**, Theory; **Ivan Schmidt**, Theory; **Mikko Vanttinen**, Theory; **Lane Wilson**, SSRL, Research; **Renata Zaliznyak**, Research Division; **Ming Zhang**, SSRL, Research.

ES&H has new Associate Director

KEN KASE assumed the duties of Associate Director of the ES&H Division on January 16, replacing Matt Allen, who was the founding Associate Director of that division. Matt asked in September to be replaced so that he could return to technical work. Matt has done a terrific job in difficult times setting up this Division to help bring the laboratory into conformance with all of the nation's new ES&H requirements, while at the same time being sensitive to the research nature of our environment. I am sorry to lose him, but Matt has held me to my original agreement



Ken Kase

with him that he would do the job for a few years and then return to his technical activities.

Ken's background and experience make him an ideal candidate for the Associate Director position. He has a Ph.D. in biophysics from Stanford, has had a distinguished career in research and health physics in the areas of biological effects of radiation and radiation oncology, and is also currently a member of several committees of the National Council on Radiation Protection and Measurement.

—Burton Richter

4th DOE Review of Programs for Women

OVER 120 PEOPLE from 18 DOE facilities and 7 DOE offices met at Sandia National Lab in Albuquerque, New Mexico, in October for the fourth DOE Review of Programs for Women. These reviews began in 1990 with three main goals: to review the status of existing programs for women in the DOE sites; to review programs for students; and to develop action plans to remedy any shortcomings. Gains were made in many areas over the four years.

The 1994 results included a statistical comparison of the DOE labs in the areas of job classification, education level, gender and ethnicity, and pay range; and a qualitative comparison of programs and policies dealing with recruitment, retention, and promotion of women.

The good news from the surveys was that most labs have active policies to recruit and hire women. Most labs have programs that address alternate work schedules, employee assistance, sexual harassment, and employee education.

However, much remains to be done to remedy deficiencies in dependent care programs, flexible benefits, and integrated career development and career advancement. This latter issue is especially evident from the survey that shows that greater than 75% of women are in pay bands 1 and 2 (e. g., less than \$30,000 per year) and less than 10% of women are in pay bands 6 & 7 (e. g., greater than \$75,000 per year).

P.A. Moore, SLAC's education coordinator and point of contact for the women's programs, reported at the meeting that during FY 94 SLAC had two modest gains in programs to encourage diversity and equal opportunity.

The child care survey and task force were positive steps in recognizing the needs of single- or two-parent families in need of affordable and accessible child care. This initiative attempted an on-site child care facility, but SLAC's budget cuts rendered that impractical.

A more promising result came from the overwhelming participa-

tion of 104 girls in the "Take Our Daughters to Work Day" held in April, 1994. Organizer Evelyn Eldridge-Diaz originally anticipated that 50 girls might attend.

Moore reported that other SLAC education programs continue to encourage women and minorities and that this is an ongoing commitment.

Joan Winters, from SLAC Computer Services, attended the Review as a follow-on to her previous involvement in the leadership conference co-sponsored by the DOE, NASA, and the Association for Women in Science. As part of her commitment to enhancing leadership skills among women in science, Winters has been active with the team of representatives of other labs in this area to develop women's programs, such as a recent poster session of women in science held at Lawrence Livermore National Lab.

Those interested in more information about the DOE Review of Women's Programs can contact either P.A. Moore at ext. 3826, or Joan Winters at ext. 2530.

Equipment donated to local school well received



Students from Oak Knoll Elementary School in Menlo Park display equipment donated from SLAC. Three computer monitors are now in place in classrooms while other equipment has been distributed throughout the school. —P.A. Moore

Tuskegee Airman to kick off Black History Month

COLONEL WILLIAM (BILL) Campbell (USAF-Retired), formerly the Commanding Officer of the famous all-Black 99th Fighter Squadron and member of the Tuskegee Airmen, has been invited to speak at SLAC on Wednesday, February 1, at noon in the SLAC Auditorium to kick off Black History month.

Campbell received his flight training at the Tuskegee Army Airfield near the town of Tuskegee, Alabama, and at Tuskegee Institute. He was an original member of the 99th Fighter Squadron, and on June 2, 1943, he made history along with Lieutenant Charles Hall by becoming the first Black airman to fly a combat mission in World War II. During the war, Campbell was credited with 106 combat missions and two enemy fighters shot down. He was awarded the Distinguished Flying Cross with one Oak Leaf cluster, the Air Medal with thirteen clusters, a Bronze

Star, and the Legion of Merit with one cluster.

The Tuskegee Airmen distinguished themselves in the aerial war over North Africa, Sicily, and Europe, flying, in succession, P-40, P-39, P-47, and P-51 type aircraft. These 450 gallant men flew 15,553 sorties and completed 1,578 missions with the 12th Tactical US Army Air Force and the 15th Strategic US Army Air Force. White American bomber crews reverently referred to them as "The Black Redtail Angels" because of the identifying red paint on their tail assemblies and because of their reputation of not losing bombers to enemy fighters as they provided fighter escort to bombing missions over strategic targets in Europe.

By the end of World War II the Tuskegee Airmen had earned 150 Distinguished Flying Crosses, Legions of Merit, Silver Stars, Purple Hearts, The Croix De Guerre, and The Red Star of Yugoslavia.



The insignia of the all-Black 99th Fighter Squadron.

Now retired from his most recent job as a professor of military science at the Navy Post Graduate School in Monterey, California, Campbell lives in Seaside, California, where he spends most of his time playing tennis and serving as a consultant on behalf of Tuskegee Airmen, Inc. for George Lucas' upcoming movie *Red Tails: The Story of the Tuskegee Airmen*.

The Black Association of SLAC Employees invites you to come and hear this American hero as we celebrate Black History month.

—Al Ashley

World Wide Web ensnares local users

IT IS UNLIKELY that any SLAC computer user has not heard of the World Wide Web (WWW). In addition to widespread coverage in the popular press, references to WWW and Mosaic have appeared in SLAC publications, news items, and more. Web browsers such as Mosaic and Midas are available on all SLAC-supported computing platforms. The recent report of the VM Migration Committee describes the critical role that WWW will play in the post-VM computing environment.

Few SLAC users are aware of the fact that SLAC had the first WWW server in the US. SLAC was committed to the use of WWW long before the current widespread popularity of Mosaic. The HEP preprints database is accessed through WWW thousands of times per day by users throughout the world. Babar, SLD, and other collaborations have their own WWW pages to facilitate distribution of critical information.

In response to this growth, a SLAC WWW Users Group (SWUG) has been formed. This group held its first meeting in December with a talk by Christine Quinn, the Director of Electrical Engineering Computer and Network Services at Stanford.

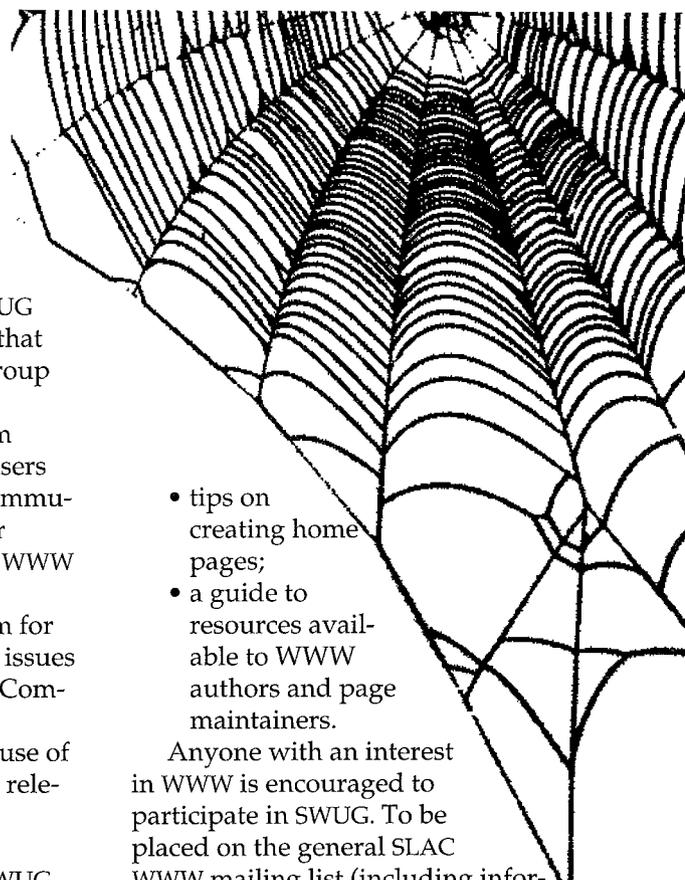
Christine's talk, previously given at the 2nd International WWW

Conference, was entitled "From Grass Roots to Corporate Image—The Maturation of the Web." All attendees found that her talk provided a perspective on the Web not often seen at SLAC. This "kick-off" meeting also included a discussion of SWUG organization. It was agreed that some realistic goals of the group are:

- to provide a mechanism whereby SLAC WWW users and maintainers can communicate with one another regarding the issues of WWW support at SLAC;
- to provide a mechanism for user input on technical issues to the WWW Technical Committee;
- to further promote the use of WWW at SLAC through relevant presentations and demonstrations.

It was also agreed that SWUG meetings would be held once a month (the second Wednesday of the month in the SCS conference room). Suggested topics for future SWUG meetings include

- a tutorial on writing forms in HTML;
- a discussion of the procedure for adding pointers to pages on the SLAC Home Page;



- tips on creating home pages;
- a guide to resources available to WWW authors and page maintainers.

Anyone with an interest in WWW is encouraged to participate in SWUG. To be placed on the general SLAC WWW mailing list (including information about future SWUG meetings) send e-mail to listserv@unixhub.slac.stanford.edu with the following command in the body of your message: **subscribe www-l Your_Name**. For further information contact the SWUG coordinator, Laurie Gennari, at gennari@slac.

—Bebo White

Appreciation and thanks for holiday generosity



SECOND HARVEST food bank (San Mateo Branch) wishes to thank the SLAC community for contributions to the Food Bank this holiday season. Pat Bradley and Mary Parish, who were in charge of the drive, would also like to convey thanks to all who contributed, and to all who made a special effort in their departments to help collect this

food. SLAC has been credited with 1,420 pounds of food this year, surpassing our efforts of 1993, when we collected over a third of a ton of food.

Food collection barrels were placed around SLAC on December 5 and remained until December 23, when they were picked up by Second Harvest Food Bank.

—Mary Parish

Accessing the Stanford Credit Union online

IF YOU ARE A MEMBER of the Stanford Federal Credit Union (SFCU), various services and information are available to you online: account transfers; withdrawals; loan, tax, and savings information; and more. You can access CUOnline through the Stanford University FOLIO system from or through SLAC as follows.

- Using your preferred terminal emulator (like Mac-Samson on Macs, Wtnvt for PC Windows which is located in the PC/TCP WinApps program group, or Terminal on NeXTs), enter the command:
telnet elf1.stanford.edu
 - To the prompt **Account?** respond with **folio**.
 - To the prompt **University ID** enter the identification number on your University ID card.
 - When prompted for the terminal type, pressing RETURN is most likely the correct response.
- Now you will be welcomed to FOLIO.
- To the FOLIO command **YOUR RESPONSE**, enter **select cuonline**
 - Follow the CUOnline instructions.

You're eligible for membership in the Stanford Federal Credit Union if you belong to one of the following groups: employees of Stanford University, SLAC, Stanford University Hospital, companies on Stanford lands, and companies belonging to the Palo Alto Chamber of Commerce; regular members of the Stanford Alumni Association; students of Stanford University; and, extended family of SFCU members

—Ilse Vinson

1995 University Holidays

THE DATES FOR THE OBSERVANCE of the designated University holidays in 1995 are as follows:

New Year's Day 1995	Monday	January 2
Martin Luther King Day	Monday	January 16
Presidents' Day	Monday	February 20
Memorial Day	Monday	May 29
Independence Day	Tuesday	July 4
Labor Day	Monday	September 4
Thanksgiving	Thur./Fri.	November 23-24
Christmas	Mon./Tues.	December 25-26
New Year's Day, 1996	Monday	January 1

Thank you for helping



When our home burned in October the SLAC community responded with extraordinary help and support of every kind. Rafael, Pancha, Elena, and I thank all of the wonderful people who helped us through a most difficult time.

—Evelyn Eldridge-Díaz

A Concert By Any Other Name is An Accelerator

(Noon Concert at SLAC, 12/14/94, with thanks to Sid Drell and the Stanford String Quartet)

The first strains are those of practice, as each musician makes one last reach for a phrase of Mendelssohn or Beethoven, pulling in the elements of sound.

After tuning, they begin to stir what matters: air and the drums of ears until the shoulders of the Listeners drop, eyes soften, and the clock

is not noticed, nor is noontime hunger.

A Repair Opportunity Day:

how the melodies slip the fears and tired faces from their perches!

The players watch each other for a nod, a plucked string, a pause which means silence will be filled. They move as four and also one

to focus the energy of their hands on points down the tunnels of response. The interactions have just begun.

The Listeners become luminous in their places.

—Janice Dabney

Changes in Publications Department procedures

AS OF JANUARY 1, 1995, policies on report numbers, theses, and photography have been changed or modified in order to accommodate suggestions received from authors, librarians, and users.

Publication numbers

All publication numbers will now include the year of publication in order to facilitate electronic retrieval, and the report series, presently designated SLAC-xxxx, will incorporate an "R" into the number. In addition, SSRL numbers will now look exactly like the rest of SLAC's, without a separate numbering system or line underneath the SLAC-assigned number. There are four ways to obtain a number for a SLAC Pub, Report, or TN: send electronic mail to crystal@slac.stanford.edu; phone ext. 2677; FAX 926-2750 (ATTN: Printing & Distribution); or in person at Room 110, the Printing & Distribution group (P&D) of the Publications Department. In order to obtain a number, the following information should be provided: title; author's name and mailing address; and author's electronic mail and phone. If P&D cannot give you a number immediately,

they will notify you of the number within eight working hours.

Theses

In the future, SLAC will print and distribute theses (providing research has been done under SLAC or SSRL contract) to a minimal distribution of 100. This provides for five author, five collaboration, and contractual copies. Any copies requested beyond 100 at the time of printing (in increments of 50), will be charged to the author's account. If additional copies are desired later, they will still be charged back to the author, but they may only be ordered in quantities of 100. This reduction of the printing and distribution costs associated with thesis publication will still allow us to send one copy of each thesis to selected laboratories worldwide. This new policy will provide a more accurate and comprehensive record of the laboratory's scientific achievement.

To facilitate thesis publication, authors may now substitute advisor and/or chairman signatures for the required two approvals necessary for all other publications in the report series. These approvals

are necessary to check that reports meet quality standards comparable to those of refereed journals and that work done under the contract is of general interest to the laboratory program.

For a copy of Printing & Distribution's theses procedures, please send electronic mail to crystal@slac.stanford.edu.

Photography

All requests for photographic services, including shooting time, film, and developing, will be charged to the requester. The present policy is to use Visual Arts on campus for routine photographic assignments and charge their services to the requester, but the Publications Department still coordinates the services of a freelancer in case emergency situations demand a photographer. In the future, the freelancer's time and supplies will be charged back to the requester. In addition, Publications has a camera available for use should an unexpected need arise; users will be charged for film and developing expenses.

—Crystal Tilghman

Volunteers needed for Take Our Daughters to Work

TAKE OUR DAUGHTERS to Work is a special event in which participants go with their parents to work instead of going to school for one day. Sponsored at SLAC by the Women's Interchange at SLAC, the day is designed to introduce young women ages 9 to 16 to SLAC, and to help them expand their career aspirations. It is designed to encourage, inspire, and introduce adolescent girls to the workplace. It will give

them a chance to experience various careers firsthand by accompanying their mom or dad to his or her job.

SLAC's first Take Our Daughters to Work day was a tremendous success last year, with 104 girls attending a day-long program. The success of the day was due entirely to the efforts of dozens of volunteers who donated their time and energy to plan and run the event.

As with any event of this kind, it cannot happen without volunteers. This year Take Our Daughters to Work is scheduled for April 27, and the quest for volunteers is on. If you want to help, contact Evelyn Eldridge-Diaz, ext. 4128, or send e-mail to evelyn@slac.stanford.edu.

—Evelyn Eldridge-Diaz

Handling lead safely

LEAD IS A HEAVY, bluish-gray metal, primarily used at SLAC in the form of bricks and sheets for radiation shielding. Handling these lead items safely can be easy, according to supervisor Al Mixon at the Installation Group of the PEP-II Division. Part of Al's job is to minimize his crew's exposure to lead, and to ensure that they safely handle, transport, and store lead sheets and bricks.

Before handling lead, Robert Hammer and Al check Robert's work area for any hazards. Al makes sure that any potentially radioactive lead items have been surveyed by the Operational Health Physics department. Since lead dust is the primary health hazard, Al often calls an industrial hygienist in the Safety Health and Assurance department for advice and suggestions regarding safety precautions. Depending on air sampling results from Robert's work area, and his level and time of exposure to lead, the industrial hygienist may either recommend or require Robert to wear protective respiratory equipment, and to undergo Medical Department surveillance. To complete the protective clothing requirements, Robert will wear gloves and coveralls. After use, all the protective clothes are considered hazardous waste and must be placed into specially marked bags obtained from the Environmental Protection & Waste Management Department. The department then disposes of the bags appropriately. Although he

wears gloves, Robert washes his hands thoroughly after working with lead, as a further safety precaution.

To safeguard their health, SLAC personnel who work with lead are required to take the ES&H course "Lead Safety," to learn about specific handling guidelines. Supervisors are required to take the ES&H course "Hazard Communication Supervisor Training."

Supervisors are also concerned with safe storage of lead. If it comes in contact with water, lead can release dangerous toxic products that may leak into the environment. So Al stores lead indoors, and seals exposed lead with durable waterproof resins. When indoor storage is not an option, Al paints the bricks with special resin paint and places them on elevated palettes, which he covers with waterproof tarps.

Monitoring work areas, enforcing protective clothing requirements, and adhering to general safety and storage guidelines can help supervisors preserve employee health and reduce environmental pollution. As Al and Robert know, avoiding lead exposure is easy, but safe practices can only be accomplished with the cooperation of all involved.

For more information see ES&H Bulletin 1A for lead storage tips. An ES&H Manual chapter on lead is under development, and will be available soon to provide comprehensive information on all lead safety issues. —Ann McKillop

Home Recycling Tips

IF YOU INSTALL YOUR OWN CAR BATTERY, you may be able to drop-off your old battery at your nearest recycling center—for example, the Palo Alto Recycling Center off Embarcadero Road. For more information on recycling hazardous household wastes call the California Integrated Waste Management Board at 1-800-553-2962.

All meetings are held in the Orange Room, unless another location is listed. Larger meetings and conferences have a contact listed. Please notify the Public Affairs Office of any additions or changes by calling ext. 2204 or sending e-mail to nina@slac.

February 2–17

SLD Collaboration Meeting
Chateau la Cresta

February 2, 12:15 PM

Breathe Easy/
Stop Smoking
Wellness NOW Seminar
T/C Center, A/B
S. Ong

February 2, 7:00 PM

OS/2 Users Meeting
Auditorium

March 3–11

BaBar Collaboration Mtg.
Auditorium
D. Hitlin, V. Luth,
T. Boysen

March 3–17

SLD Week
TBA

March 3–18

SU Conference on Spectroscopies in Novel Superconductors
Z.-X. Shen, W.E. Spicer,
K. Cantwell
Auditorium

March 3–18

EPAC Meeting
D. Fryberger, V. Flynn

March 3–24

APS General Meeting
San Jose

March 3, 8:00 AM–3:00 PM

SUBB Mobile Blood Drive
Auditorium Lobby

March 3, 7:00 PM

OS/2 Users Meeting
Auditorium

EVENT CALENDAR: February–March 1995