

Energy Award to Central Computing Facility Design

The energy-efficient aspects of the new Fermilab Central Computing Facility, developed through Wayne Nestander's Construction Engineering Services Group (CES), represent the first of a new generation of "intelligent" buildings now being constructed on site. Recently honored at the DOE Annual Energy Awards Night for optimized energy conservation design, this facility is projected to save substantial amounts of money in operating costs during the life of the building while using only 35% of the energy typical of similar facilities designed in the mid-seventies.



(Photo: Argonne Nat'l. Lab.)

James Finks (third from right), Head of Fermilab's Business Services Section, accepts the Association of Energy Engineers Corporate Energy Management Award from Hilary J. Rauch, Manager, DOE/Chicago Ops. Also pictured are, from left, Norman Hansen, DOE/BAO; Steve Krstulovich, Chief Mechanical Engineer, Fermilab Construction Engineering Services; Richard W. Brancato, Director, Federal Energy Management Program, DOE Washington HQ; and Bill Riches, Fermilab Energy Management Coordinator. The award is based on three achievements: 1) energy-efficient design for the new Central Computing Facility, 2) use of the DOE Mobile Energy Lab for energy studies support, and 3) cogeneration feasibility studies at Fermilab.

The concepts were initially developed by Steve Krstulovich, CES Chief Mechanical Engineer, in a 1000-page computerized simulation analysis, and call for driving the entire facility as a giant heat engine to reclaim and distribute energy while mon-

itoring wind, weather, solar intensity, cooling ponds, and heat generation patterns throughout the building. Under Steve's direction, the CES Mechanical Department broke new ground in the use of advanced technology systems to actualize design concept goals. CES Mechanical Designer Merle Olson took the lead in conjunction with Designers John Bell, Jack Furlong, and Bob Weldon in laying out the intricate mechanical systems, while CES Mechanical Engineer Al Schmitt worked out the sophisticated DDC computer control systems. Ultimately, Al's work should enable this computer to talk to maintenance and engineering offices over a network linking similar building computers throughout the site. Current plans include submitting this project for award to other professional energy conservation societies such as ASHRAE.

Deputy Director Phil Livdahl "Retires" to Loma Linda Project

"During these last nine years in the Directorate, I've had the tremendous experience of working with a group of very talented, very dedicated, and very willing people; I'm going to miss these them very much. And those sentiments extend to all the people I've worked with over my years here at Fermilab."

Those were the feelings expressed by Deputy Director Phil Livdahl on the eve of his retirement from Fermilab on September 17, 1987, after a career that found him deeply involved with every major advance the Laboratory has made.

Joining the fledgling National Accelerator Laboratory in late 1967, Phil set about the task of constructing and making operational the Linac. With a Linac ready to go, a Main Ring was the next logical step, and in 1971 Phil became one third of the three-manager system (along with Dick Lundy and Rich Orr) set up by then-Director Robert Wilson to finish construction of the Main Ring and make it operational. "We each had 150 or so people assigned to us," Phil recalled, "to do whatever had to be done on whatever day it needed to be done in order to get the

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"Livdahl" continued from page 1

machine up and running. We continued that way until that activity was finished and the machine was producing physics."



Phil Livdahl

(Photo: Fermilab Vis.Med.Serv.)

With the Main Ring complete, the Lab reorganized, setting up an Accelerator Division and a Research Division to facilitate completion of the experimental areas. Phil became Deputy Head of the Accelerator Division for the next few years, and he began working with Don Edwards, Bill Fowler, the late Will Hanson, Hank Hinterberger, Paul Reardon, Bruce Strauss, Lee Teng, and Wilson as the basic group laying plans for the fabrication of superconducting magnets, the foundation for the Energy Doubler/Saver project.

In 1978, with the departure of Bob Wilson, Phil became Acting Director. As Director Leon Lederman noted in his remarks on the occasion of Phil's retirement, "[When I became] Director Designate in the fall of 1978, I knew you were holding the Lab together, and that in itself was no small achievement."

"My years here have been fascinating," Phil said. "Looking back on it, one realizes that even the normal aggravations and frustrations were really very rewarding in the end. One gets to work with extremely bright people who are all very much of a single purpose: to do what you've set out to do. To have had an opportunity to be a part of the process of making things happen here has truly been wonderful.

"And, of course, working with Leon these past nine years has always been the most rewarding of experiences for me. He's an ingenious and unbelievable person. His imagination and his ability to carry things through is really quite remarkable."

All of which is mere prelude. "The reason I've made this change now," said Phil, "is so that I can spend all of my time on the Loma Linda proton therapy accelerator. When we designed Fermilab's agreement with the Loma Linda Medical Center in California, we excluded from Laboratory responsibility anything outside of the accelerator itself. In trying to put together an organization to take care of the equipment requirements for the rest of the facility, the administration of the Medical Center asked me if I would take on that responsibility. I couldn't do that and continue in the Directorate, so I decided that for once in my life I was going to get down to one job.

"The potential for the kind of treatment that will be done with this accelerator at Loma Linda has been understood for a very long time; Bob Wilson originally described the treatment of tumors with protons in a paper he wrote in 1946. Only recently has the diagnostic capability reached the point where we can realize that potential. Up to now, treatments have been done using physics machines, but they suffer from a serious limitation: they're not where the doctors are.

"The origin of the Loma Linda project goes back 20 years; they wanted a facility such as this at their medical center, but they didn't know how they could get it, and they began researching the problem in their spare time in 1970. Finally, almost two years ago, the Loma Linda people came to Fermilab and began the discussions which resulted in our agreement to carry the project forward."

Eventually, Phil's work on the medical accelerator will take him, and his wife Phyllis, to California, but at present he's sharing his time between Loma Linda and Fermilab while the proton accelerator undergoes prototyping at the Industrial Complex.

Again quoting from the Director's remarks at Phil's retirement: "How does one sum up your 20 years of service to Fermilab? You brought an unflappable steadiness to the team . . . Looking back, I really can't imagine what I, what the Laboratory, would have done without you.

"In your latest endeavor, too, the proton therapy accelerator, your efforts have brought together a large and diverse community in order to clarify the issues . . . Every retirement should have a bright prospect, and yours is as bright as they come. You stand a good chance to be the moving force behind a medical instrument that can have a profound effect on the treatment of dread diseases."

Benefits Notes

Developments at TIAA-CREF

Included with your last TIAA-CREF quarterly statement was a letter from the Chairman and Chief Executive Officer describing proposed changes to TIAA-CREF retirement plans. Some of the changes have been approved by the TIAA-CREF Board, and others will be presented for approval to the Board at the mid-November meeting. Following is a summary of the letter you received:

1. TIAA-CREF is ready to introduce a Money Market Annuity fund upon approval from the SEC. This fund will allow CREF participants to transfer or allocate contributions between CREF Stock Fund and Money Market Fund at any time.

2. As part of the Money Market Annuity introduction, TIAA-CREF will initiate "daily participation." CREF accumulation unit values are now determined once a month. Under the new system, this will be done each business day. Therefore, plan participants with CREF stock and Money Market can transfer between the stock account and money market account or to TIAA on any business day during the month through a special toll-free telephone number. You will no longer need a transfer form or have to wait until the end of the month to execute a transfer.

3. A special committee recommended adding five new CREF funds. Contributions could be shifted among all seven CREF funds or to TIAA.

4. The special committee also recommended a new "TIAA II" annuity. If adopted by the Lab, this would permit transfers of new accumulations from TIAA II to CREF, and accumulations in TIAA II and CREF could be transferred to institutionally-approved (non-TIAA) alternative funds. A cash-out option at termination would also be included. Currently, transfers from TIAA to CREF are not allowed, and cash-outs are only available at termination if funds have been in the plan less than five years and the employee is not going to another TIAA-CREF employer.

5. The committee recommended that a loan provision and an "interest only" pay-out provision be a part of the Supplemental Retirement Annuities (TIAA-SRA and CREF-SRA).

These recommendations would be phased in over the coming months and the next few years. TIAA-CREF and the Employee Benefits Office will keep you posted as changes develop. **- Paula Cashin**



'Wellness Works' News

WELLNESS WORKS For those who were unable to attend last spring's successful four-part presentation of "Strategies for Stress," Fermilab will repeat this workshop on the following dates from 12:00 noon to 1:00 p.m.:

Tuesday, December 1, 1987: 1West

Thursday, December 3, 1987: 1West

Tuesday, December 8, 1987: Curia II

Thursday, December 10, 1987: 1West

Employees should plan on attending *all four sessions*. The first two sessions are designed to help you ascertain what level of stress you are experiencing. The second two sessions will give some suggestions for coping with stress. Pre-registration for this free workshop, presented by Maxicare Illinois Health Education, is required and can be done by contacting Dotti at ext. 4367. **- Dotti Swanson**

Congratulations to:



Credit Checks

The Argonne Credit Union will sponsor a seminar on the Tax Reform Act of 1986. The seminar will examine the effect this tax act will have on individuals' federal income tax returns this year.

Associates from the accounting firm of Selden Fox & Associates will be the presenters.

The seminar will be held on Thursday, December 3, 1987, promptly at 6:00 p.m. in Building 362 Auditorium at Argonne National Laboratory. Tax-related questions will be answered following the presentation.

Donation required for the opportunity to name a "grand staircase" at Carnegie Hall: **\$500,000**

Donation required to name the service elevator there: **\$250,000**

Life expectancy of a worker ant (in months): **3**

- from Harper's Index

A Timely Reminder from the Payroll Department: Check Your Social Security Account

Fermilab employees are encouraged to check the accuracy of their Social Security accounts regularly (*no one else can do this for you*).

An article by James E. Roper, appearing in the U.S. Department of Health and Human Services newsletter, pointed out that "The Social Security Administration. . . urges everyone still paying into the system to check on the accuracy of [their] account every two or three years. For 1980, Social Security is correcting 2 million errors found so far. Each employee[']s. . . pension and other benefits under Social Security are based largely on earnings

that have been subject to Social Security tax. If Social Security fails to credit [them] with the full amount, [they] may not get all the pension and benefits they are entitled to . . .

"Social Security normally does not make corrections after the 3-year, 3-months, 15-day deadline.

". . . Social Security urges everyone making payments . . . to ask for a record of [their] account every two or three years."

Payroll has provided the form printed below; clip and send. The pension you save may be your own.

- Jo Baaske

REQUEST FOR STATEMENT OF EARNINGS

Social
Security
Number

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Date of
Birth

Month	Day	Year
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Please send a statement of my Social Security earnings to:

Miss

Name Mrs. _____

Mr.

Street & number _____

City & state _____ Zip Code _____

Sign your name here (do not print) _____

Sign your own name only. Under the law, information in your Social Security record is confidential and anyone who signs another person's name can be prosecuted. If you have changed your name from that shown on your Social Security card, please copy your name to the right exactly as it appears on your card.

RETURN TO:

Social Security Administration

P.O. Box 57

Baltimore, MD 21203

Aurora Blood Bank to Seek Donors at Fermilab on December 2



(Photo: Fermilab Vis.Med.Serv.)

These four Fermilabers were recently given awards for selflessly donating literally gallons of blood each to the Aurora Blood Bank over the years. They are, from left, Norman Leja, James Franzen, Joseph Biel, and William Noe, Sr. The Aurora Blood Bank will return to Fermilab on December 2, 1987. Donors are asked to go to the Wilson Hall 1West conference room between 9:00 a.m. and 2:00 p.m.

THE SAFETY SECTION

Shoemobile Date Change

Employees who are required to wear safety shoes on the job are reminded that the Stockroom no longer disburses safety shoes. Instead, Lehigh, class 75, ANSI-approved safety shoes are available from the Shoemobile, a heated, enclosed truck that can be found in the parking lot behind the Industrial Center Building on the schedule noted below. In order to obtain safety shoes, employees must secure an approval slip from their Division or Section Safety Office or from the Safety Section, Wilson Hall 7E. After completing the form (employee's name and budget code, and supervisor's signature) take the form and your Lab ID to the truck.

Effective January 5, 1988, the Safety Shoemobile schedule will be Tuesdays (instead of Fridays), from 8:00 a.m. to 4:00 p.m. (closed for lunch from 11:30 a.m. to 12:30 p.m.) Also, please note that due to the holidays, the last Shoemobile day of 1987 will be Friday, December 18.

Hours Shortened for Rosin Optical

Effective December 2, 1987, the hours for the on-site optician (for safety eye-wear) will be shortened to 10:00 a.m. to 12:00 noon, Wednesdays.

- Dave Cathey

And Now, a Word on Elevators

In response to countless question, suggestions, and complaints about the Wilson Hall elevators:

The hard, cold facts are that Wilson Hall has four elevators, and that may be all we will ever have, but that doesn't mean we can't do anything to improve our "vertical transportation system."

During FY87, new machinery was installed on elevators 1 and 4, a third machine was purchased for installation on elevator number 2, and new door equipment was installed on elevator number 1. This new machinery should improve operating reliability because it is top-of-the-line equipment.

We also installed a system called "load weighing" on all four elevators. A device was mounted on each car which can sense the weight of the passenger (or freight) load and prevent a full car from stopping for more passengers. (Continued top of column 2)

Currently, new door-operating equipment is being installed on elevators 2, 3, and 4. Door problems are the number-one cause of shut-downs; the complete replacement of old door-operating equipment should dramatically reduce the number of elevator breakdowns.

While all this is going on, we ask that you bear with us and bear up under the temporary inconvenience. The end result will be an improved ride.

- Pierre Loomis

In the Library

Free computer searches in *Chemical Abstracts* are offered through the end of 1987. Find references to journal articles, conference papers, books, etc., on topics such as physical and analytical chemistry, materials science, properties and reactions, and applied chemistry.

For more information on searching *Chemical Abstracts* or other online databases, please call Paula Garrett at ext. 3401 or FNAL::LIBRARY on the VAX.

Car Club Revs Membership Drive

The Fermilab Car Club will be accepting membership applications on December 1, 2, 3, 8, 9, and 10, 1987, at the Users Office between 11:30 a.m. and 1:00 p.m. Due to an increase in the club's insurance policy, and the cost of obtaining keys, the membership fee will be \$25.00 for two years *only*.

Christmas Dinner Dance

Finding your way to the NALREC Christmas Dinner Dance will be no problem this year: over the river and through woods directly to the Wilson Hall Atrium where the festivities will commence on the evening of December 19 with open-bar cocktails and a champagne fountain from 6:30 p.m. to 7:30 p.m., followed by dinner (prime rib or chicken breast Veronique, plus trimmings) and door prizes (two one-night cabaret packages at Pheasant Run) from 7:30 p.m. to 9:30 p.m., and then dancing to Burgundy Road from 9:00 p.m. to who knows when. For tickets, contact Jo Baaske, ext. 3046, WH 4E, or Jean Plese, ext. 3211, WH 2E. Tables will be reserved on a first-come, first-served basis.

In Memoriam

Edward Brezina 1916-1987

Edward Brezina, who began his Fermilab career in July of 1970 and retired as an Inspector with the Safety Section in February of 1979, passed away on October 9, 1987.

He is survived by his wife, Winifred, and two sons, Edward, Jr. and David.

John Colson 1928-1987

John Colson, who retired from Fermilab in October of 1982 as Executive Assistant in the Business Services Section Administration Group, passed away on October 21, 1987. John began his career at Fermilab in February of 1974.

Jim Finks, Head of the Business Services Section, said of John, "He brought his many years of experience with the army and Argonne National Laboratory to Fermilab's Support Service function, and his 'can do' attitude helped mold the character of this important support function."

He is survived by his wife, Brenda; a daughter, Sheila, who works in Fermilab's Visual Media Services; and sons Alan and Paul.

Henry Kies 1921-1987

Henry Kies, a Fermilab employee since 1974 and a Lead Store Keeper with Support Services until going on leave-of-absence in 1985 and long-term disability in 1986, passed away on October 25, 1987.

Frank Cesarano, Henry's supervisor, lauded his "dedication to his work. Hank never allowed the potential limitation of an artificial leg to hamper his work performance or the unfailingly cheerful demeanor that made him such a pleasure to work with."

He is survived by his wife, Doris.

Hope Thies 1936-1987

Hope Thies, a Data Text-Entry Operator with the Accounting Department, passed away on November 8, 1987.

James Schiltz, Accounting Department Manager, said that "Hope should be an inspiration to us all. Despite her illness, Hope came to work as long as she was able and performed her job flawlessly. She kept her head up and a smile on her face. Her faith, and her husband's faith, in God sustained them both through it all. She will be sadly missed by the entire Accounting Department, but not forgotten."

She is survived by her husband, Richard, who works in Research Division Computer Operations, daughters Laura, JoAnn, and Tina, and sons Vincent, John, and Adam.

Harold Warren 1942-1987

Harold Warren, Technical Specialist with the Technical Support Magnet Development and Testing Facility, passed away on September 17, 1987. He had been employed at Fermilab since November of 1969.

"Harry was a master craftsman," said Al McInturff, Harry's supervisor, "with an artistic flair and a passion for excellence that was apparent in his work and his life."

He is survived by his wife, Annette, son Michael, and daughter Vonnie.

NOTE: The last issue of *FermiNews* for 1987 will appear on December 11. Deadline for articles and ads is December 1.

LOST: 1 roll of 35mm color film (exposed) at Children's Halloween Party at the Village Barn. If found, please contact Dave Ritchie, ext. 3940.

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Editor: R. Fenner **Editorial Assist.:** C. Kania
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