Fermilab's Neutron Therapy Facility (NTF) has been using neutrons from the Linac to treat cancer patients since 1976, with only brief interruptions to allow for necessary repair and maintenance of the Linac and therapy-related equipment. Although high-energy physics at Fermilab is currently in a shutdown phase, the treatment of patients continues at NTF.

The National Cancer Institute's funding of NTF ended on October 1, 1985. Because neutron irradiation has become the treatment of choice for inoperable radio-resistant tumors, many patients and their physicians did not want this method of treatment to become unavailable in the Midwest. Doctors Frank Hendrickson and Lionel Cohen, who have directed the facility since its inception, formed the Midwest Institute for Neutron Therapy (MINT) in order to make NTF self-supporting. MINT has entered into a contract with Fermilab to buy the beam time, personnel, supplies, and equipment necessary to treat patients with neutrons. Full payment of cost to the Laboratory has been pledged by MINT.

The typical cost to patients is similar to that of conventional radiation therapy and is significantly less than surgery or chemotherapy. Depending upon the complexity of the case, the number of treatments required, and any special treatment delivery devices that a particular patient may need, the total cost ranges between $4000 and $8500. Follow-up examinations are done without charge because Drs. Hendrickson and Cohen do not want patients to forgo check-ups due to concerns with cost. Insurance payments are often delayed by several months and some patients cannot pay for therapy, but treatment, in these cases, is provided anyway for humanitarian reasons. At the present time, expenses at NTF are greater than receipts. MINT came into existence to fund the actual costs of treating patients at NTF, and if a profit is eventually made, plans call for using those excess funds to upgrade the facility and possibly donate money to Universities Research Association in order to foster research and educational activities at Fermilab. Eleven patients are currently being treated. Most of them will receive a total of 12 treatments over 26-30 days. Following completion of their course of treatments, the patients return here on a regular basis for check-ups.

Medical research conducted here and elsewhere has documented that in some types of cancer, neutrons are more effective than x-ray or cobalt irradiation, and that neutron therapy is at least as effective as conventional radiotherapy in the treatment of other forms of cancer. These also tend to be cancers which are inoperable, or are those in which the surgery necessary for removal of all of the tumor would leave the patient disfigured and/or with impaired function. Chemotherapy would not be curative in these cases because of the size of the tumor. Although no one has been able to achieve 100% local control in any type of cancer, the proportion of patients who remain cancer-free in the area treated with neutrons is higher than would be expected.
Fermilab Announces Plan to Reward Conservation Ideas

To paraphrase Einstein, \( E^2 = M \) becomes an equation to remember as Fermilab inaugurates the Employee Conservation Suggestion Awards Program (ECSAP), a Lab-wide effort to actively involve employees in better utilizing the Lab's energy resources.

ECSAP encourages any Fermilab employee to suggest ideas for conserving energy in any area of Laboratory operation. Encouragement, in this case, takes the form of a quarterly cash award to those suggestions deemed best following review of all suggestions implemented each quarter.

These ideas are reviewed by an Employee Conservation Awards Committee comprised of Wayne Nestander, representing the Directorate; Age Visser from the Research Division; Kurt Kasules of Technical Support; Jan Ryk, Accelerator Division; and Don Beatty in the Business Office. The review process involves drawing on the expertise of specialists in the organizational division appropriate to each suggestion. Following evaluation for feasibility of implementation, and recommendation for adoption, the parties responsible for the best suggestion(s) will receive the cash award, to be presented by Director Leon Lederman at an awards luncheon. Recipients of the awards will be announced in FermiNews.

Bill Riches, Fermilab's Energy Management Coordinator, devised the program and, together with Associate Director Bruce Chrisman, saw it through DOE approval to its final form. "Conservation suggestions can range from small to major," Riches noted. "The program will be administered so that smaller ideas have an equal weight with larger, more technically oriented ones. You don't have to be an engineer to participate and win."

In order to obtain ECSAP suggestion forms and more details (and there are more details), contact the Energy Management Coordination office at ext. 3779, MS #119, or from the Safety Section secretary, on WH 7E.

Why \( E^2 = M \)? Because employee energy conservation equals money.

Fermilab Staff Members Pitch in to Aid Youth Motivation

Fermilab is no stranger to education outreach programs, as evidenced by the Lab's participation in such endeavors as the Friends of Fermilab Association, the Illinois Mathematics and Science Academy, Saturday Morning Physics, and the NSF/APS Grant to Latin American Physics, to name just a few.

Recently, three Fermilab staffers participated in a project which recognizes the basic fact that motivation precedes, and fuels, education. Norman Gelfand, the Accelerator Division, Charles Matthews of Technical Services, Sekazi Mtingwa of TeV I, and Elliot Treadwell from the Linac group, spoke about Fermilab to Chicago-area high school students as part of the Chicago Association of Commerce and Industry's (CACI) Youth Motivation Program.

Asked about his session with the students, Mtingwa said he tried to impress upon the students the observation that "History is being made at Fermilab, the kind of history that may be studied by the students' children.

"I found the experience extremely interesting, and I hope the children did, as well. It's something I should do more often.

"The teacher of that particular class was interested enough to plan a field trip to the Lab as a follow-up."

The Youth Motivation Program recruits volunteers from all sectors of the scientific and business communities to speak to high school classes, concentrating on schools with the highest drop-out rates in Cook, Lake, McHenry, DuPage, Kane, Will, Porter and Lake (Indiana) counties. The goal of the program is to motivate students to complete their education and obtain the training necessary for improved employment opportunities.

WORK is of two kinds: (1) Altering the position of matter at or near the earth's surface relative to other such matter; (2) Telling other people to do so.
Procurement: The Paperwork Stops (And Starts) Here

From push pins to overhead cranes, from microchips to new buildings, nothing involved in Fermilab's research mission is bought, built, or bid on without paper. We all order things. We write a requisition, we send it to the Purchasing or Contracts Departments, and that requisition becomes tangible things. It's almost like magic.

It is not magic to Purchasing and Contracts. It is an ocean of paper. According to figures supplied by Jim Finks, head of the Business Services Section, in 1985 alone, 27,861 procurement actions were conducted for a total of $84 million, of which 75% were awarded to small businesses, and 5.3% to businesses owned by disadvantaged individuals. Over 400 contracts, totalling $21 million, were awarded for civil construction.

Richard Auskalnis, head of Procurement which encompasses the Purchasing and Contracts elements of Business Services, estimates that it is not unusual for as many as 150 requisitions to be received in a single day. In all, over 50% of Fermilab's annual budget goes to the purchase of equipment, materials, services, and civil construction, all of which are handled by the Procurement Group.

That ocean of paper is dotted with reefs of regulations. "Since the source of our funding is tax dollars," Auskalnis pointed out, "procurements must be conducted in accordance with certain government procurement regulations, and with a great degree of openness, especially in our bidding practices.

"Our prime contract with the Department of Energy also requires annual approval of a plan to afford small businesses, minority-owned businesses, women-owned businesses, and businesses located in areas of labor surplus the greatest opportunity to obtain procurement awards. Over the years, the Procurement Group has won many awards in recognition of our successful implementation of these guidelines.

"The combination of spending government funds and sensitivity to the mandated socio-economic goals, concurrent with support for Fermilab's dynamic research program, is a challenging responsibility."

The Purchasing Department buys standard "off the shelf" items (that is, everything that is not Fermilab-designed) and certain service-type activities.

The Contracts Department is responsible for the procurement of Fermilab-designed items, all construction, and most services. "Our job doesn't end when the contract is awarded," Contracts Manager Ed West noted. "We do day-to-day follow-up. If the award is for civil construction on site, our people check the job continually from inception to completion. If the award is with an off-site vendor, we travel to the potential vendors to make sure they really are capable of fulfilling the contract."
contract should they win it. And we'll make post-award trips in response to any problems which may crop up, and to assure contract compliance. Over the years, Fermilab has gained a reputation for integrity, and for being a good customer."

Members of the Purchasing Department are, left to right, Sharon Larson, Pat Single, Joanne Hall, Mary Chaidez, Cindy Rathbun, Bonnie Connor, and Shirley Hartman. Not pictured is Patti Casler.

In recent months, the Procurement phase of the Purchasing, Accounting, Receiving (PARS) integrated data-base has come on-line. PARS contains information on more than 4600 vendors who have done business with the Lab at least once over the years, as well as commodity lists, requisition logging, purchase-order entry, and property management capability. But the paper still flows, and the people in the pictures accompanying this article must still deal with the torrent. It is no small irony that in that constant flood of paper are the usual requisitions for...more paper.

Chez Leon Note

Reservations for Wednesday lunches and Thursday dinners at Chez Leon can be made by calling the Atrium Reception Desk on ext. 3353.

Because the number of reservations is limited, please remember to call ext. 3353 if you find you need to cancel your reservations. For very late cancellations, call Chez Leon on ext. 3524.

Cooking Demo is a Big Hit for NALWO

"A great success!!" was the overwhelming response to a Chinese cooking demonstration NALWO sponsored in the kitchen of Chez Leon on January 14.

Thirty-five women attended the demonstration organized by Mann-Mei Hsiug and Valerie Liston. Mann-Mei also interpreted and cooked with the help of Ruth Ng, Saidee Luk, Bin Lu, Mrs. Dong, and Mrs. Shu.

Each of the attendees participated in preparing the dishes, and were taken step-by-step through each recipe.

Most of the attendees are wives of visiting scientists here at Fermilab from Brazil, Germany, Japan, Korea, Poland, Spain, Switzerland, and the United States, although everyone is welcome.

After the cooking demonstration, the food was served with tea in the Chez Leon dining area, and all of the participants ate with chopsticks (some better than others!)

The participants were so enthusiastic that NALWO has decided to sponsor a Japanese cooking demonstration in March, so watch for upcoming announcements. Recipes from the Chinese cooking demonstration are available from Avril Quarrie in the Guest Office, WH 1 E.

—S. Winchester

Making egg rolls at the NALWO Chinese cooking demonstration are, left to right, Cindy Heckelsberg, Ruth Ng, Hiroko Fujioka, and Adrienne Kolb. Standing in the background are Avril Quarrie and Roberta Myers.
Congratulations To...

Director’s Special Colloquia

These Director’s Special Colloquia will be presented in the Ramsey Auditorium:

- "The Tevatron Collider - The Anti-proton Source," John Peoples (Fermilab), March 6, 1986, at 4 p.m.

- "Accelerators of the Future," Andrew Sessler (Lawrence Berkeley Laboratory), March 13, 1986, at 4 p.m.

- "Linear Colliders," Burton Richter (Stanford Linear Accelerator Center), April 3, 1986, at 4 p.m.

- (Topic to be announced), Israel Singer (Massachusetts Institute of Technology), April 10, 1986, at 4 p.m.

- "CP - Past, Present, and Future," James Cronin (University of Chicago), May 1, 1986, at 4 p.m.

Aerobics Classes Begin Soon

An aerobics exercise class will be offered at the Recreation Facility beginning on March 3, 1986. The classes are free and will be held on Monday and Wednesday, from 5:30 to 6:30 p.m. for a period of six weeks. Membership to the Facility is required for participation.

The instructor for this class will be Kristin Populorum of Batavia. She formerly instructed classes at the Spartan Way Spa in Rhinelander, Wisconsin.

Sign-up is required; employees interested in participating in this class should contact Helen McCulloch, ext. 3126.

Benefits Notes...

Fidelity SRA Performance

Available from the Benefits Office is Fidelity's mutual fund performance as of December 31, 1985. You can pick up a copy at 15WE, or call ext. 3395 or ext. 4361 and a copy will be mailed to your mail station.

HMO Members: What Should You Do If You Become Ill At Work?

If you become ill at work and your condition is not life-threatening, you should remember to follow the HMO emergency procedures which include a call to your primary-care physician or the HMO before proceeding to a non-HMO emergency facility. You should follow the HMO's instructions. Some non-life-threatening illnesses are vomiting, cramps, fever, intermittent abdominal pain, rashes, and ear aches.

Should you get ill at work and the situation is life-threatening, the Fermilab ambulance, or an independent ambulance, will take you to the nearest emergency facility. Examples of life-threatening illnesses are heart attack, uncontrolled bleeding, loss of consciousness, severe shortness of breath, poisoning, severe pain, and stroke.

You may want to review your HMO's emergency procedures so that you will be prepared in the event you need emergency treatment. Lack of preparation may result in expenses that are not covered under your HMO plan.

HAP-HMO Members

You probably received a second HAP prescription-drug card during the week of February 10, 1986. HAP decided to reissue new cards because many members did not receive replacements when their cards expired on October 1, 1985. If HAP missed you again, please let the Employee Benefits office know at ext. 3395, or ext. 4361.


In any collection of data, the figure that is correct, beyond all need of checking, is the mistake. **Corollary 1:** No one whom you ask for help will see it either. **Corollary 2:** Everyone who stops by with unsought advice will see it immediately.

Editor: R. Fenner; Assoc. editor: S. Winchester
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