

# FERMINews

 Fermi National Accelerator Laboratory

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## MILESTONE: SWITCHYARD OPERATES REFRIGERATOR

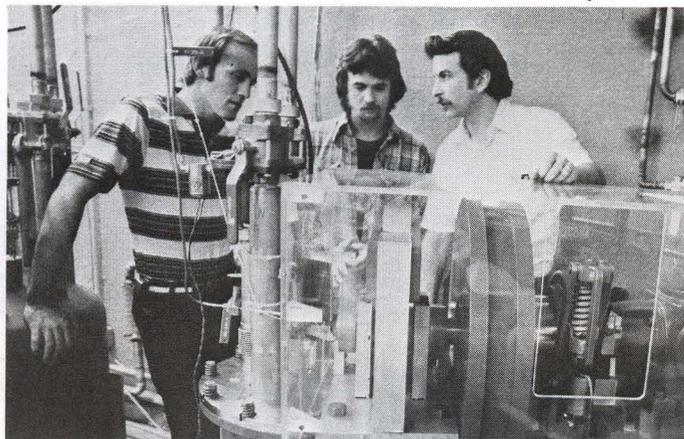
Switchyard staffers have marked a milestone--the culmination of two years' work. The event was the first operation of a satellite helium refrigerator in the Switchyard. At the Switchyard, the proton beam from the Main Ring is directed to external target areas.

Project director Jeffrey Appel said, "This refrigerator is especially significant because it is the first satellite built from commercially-produced components. Equally important, elements in the system are common with elements which will be used in the Energy Doubler and Proton Laboratory satellite refrigerators."

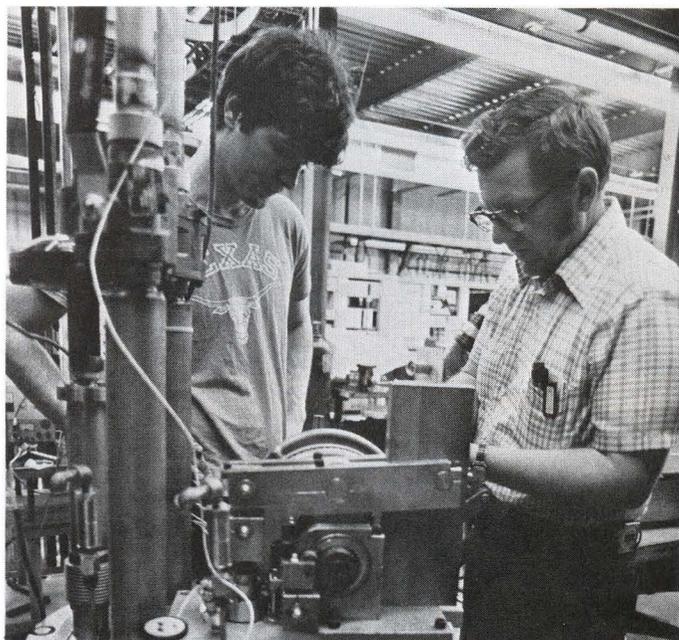
He pointed out that the refrigerators supply  $-450^{\circ}\text{F}$  cooling. This is required to make magnets in beam lines and the accelerator Main Ring superconducting.

According to Appel, the Switchyard refrigerator was producing reliquefied helium from gas a day after the start of the system's first cooldown. The Switchyard unit is intended for use in bringing 1 TeV (one trillion electron volts) proton beams to the external experimental areas when it becomes available. Its first use will be in a test of two Energy Doubler magnets to be installed in the beam line to the Meson Laboratory. Pending successful testing, the 56 conventional left bend magnets to Meson will be replaced with 22 Energy Doubler magnets.

Appel added, "The smooth beginning of operation was a result not only of the dedicated efforts of those manning the first run, but the careful work of a host of Laboratory employees." Playing key roles in the startup were engineers Richard Andrews, Jerry King, Robert Kolar and Chris Winter of the Switchyard group; Jerry Czop, Michael Hofmann, James Loskot, William Martin and Terry Savedra of Accelerator Mechanical Support Group.



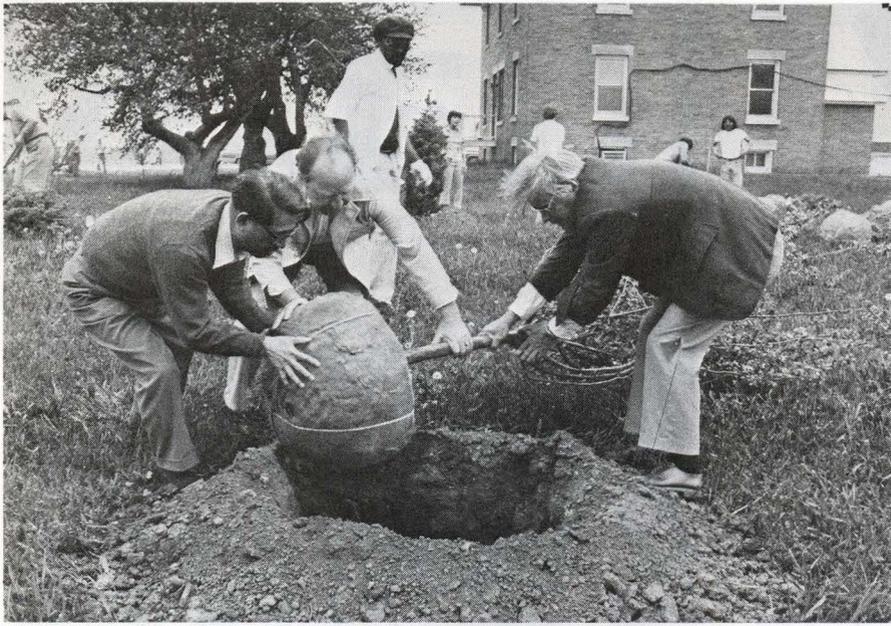
*...L-R, R. Andrews, J. McCarthy, J. Appel  
discuss expansion engine operation...*



*...Checking switchyard equipment are C.  
Winter (L) and R. Kolar...*

In addition, the success would not have been possible without Alex Waller and Eric Oetting, Controls Group; Bob Haring, Mechanical Support Group; Jack McCarthy, Robert "O.B." Oberholtzer and Sharon Lackey of Switchyard; and many others in the procurement, welding and machine shop groups.

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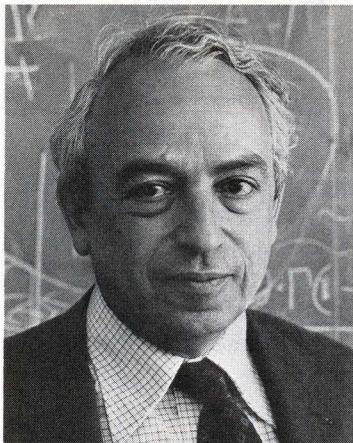


### ARBOR DAY ALBUM

Fermilab photographer Rick Fenner covered the Laboratory's Arbor Day observance May 24. The eighth annual event attracted over 150 employees and users. The plant-in at the Industrial Area was set for 10:30 a.m. to 1 p.m.; however, volunteers had planted over 100 trees and shrubs by about noon. Planted were: Douglas fir; white fir; honey locust; floribunda crabapple; zumi crabapple; sargent crabapple; and river birch. John Paulk's committee arranged refreshments, transportation from Central Laboratory and free begonias for volunteers. The Laboratory site contains about 250 woodland acres. Nebraska began Arbor Day in 1972.



## E.L. GOLDWASSER JOINS UNIVERSITY OF ILLINOIS



Edwin L. Goldwasser, Deputy Director of Fermilab since 1967, has accepted a position at the University of Illinois-Champaign. On September 1 he will become the new Vice Chancellor for Research and Dean of the Graduate School at the University.

Dr. Goldwasser was one of the founders of Fermilab. From 1951 to 1967 he was involved in the efforts of midwestern universities to strengthen their research facilities in high energy physics. He served on a number of national and regional committees, including the site evaluation committee which eventually recommended the "Weston" site to the U.S. Atomic Energy Commission for the construction of Fermilab.

At Fermilab, in addition to his duties as Deputy Director, he has been actively concerned with the scheduling of the experimental program and has been personally involved with programs implementing equal employment opportunity. Together with Director R. Wilson, he authored the Laboratory's original "Policy on Human Rights," issued in 1968.

Dr. Goldwasser did his undergraduate work at Harvard University. Following service as a physicist with the U.S. Navy, he received his Ph.D. in physics from the University of California-Berkeley, then served a year on the faculty there, before going to the University of Illinois in 1951.

Chancellor William P. Gerberding of the University of Illinois says of the appointment, "Ned Goldwasser will join Vice Chancellor and me in what I am sure will become lively and constructive discussions of what this administration should be doing about academic programs. Goldwasser is a man of high standards and sound judgment, as well as scientific brilliance. His presence will be felt on this campus."

In a tribute to Dr. Goldwasser when he announced the resignation, Dr. Wilson commented, "We cannot help but give expression to deep anguish at the loss of a founder and creator of Fermilab...."

the successes of the Laboratory, the firm foundation for the future, the cultural ambience, the spirit of opportunity for all, the international importance of our work, are all monuments to his sense of the value of science and its place in our society.

"I have been honored and privileged to be associated with this great physicist and lovable man in the adventure of Fermilab. I am sure I speak for all of us in the respect and appreciation for what he has done to bring Fermilab to its present eminence."

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### WEINBERG LECTURE FRIDAY

"The Search for Symmetry" will be outlined by Dr. Steven Weinberg in the Fermilab auditorium Friday (June 9). The free, public program will be held at 8:30 p.m. The sixth speaker in the 1977-78 Fermilab Science and Humanities Lecture Series, Dr. Weinberg is Higgins Professor of Physics at Harvard University.

A specialist in basic particle physics, he has developed theories about the birth of the universe which appear in his book, "The First Three Minutes," awarded a prize as the best piece of science writing for laymen in 1977. He is a member of the National Academy of Sciences and a Fellow of the American Academy of Arts and Science.

The Science and Humanities Lecture series is supported in part by the Illinois Humanities Council and the National Endowment for the Humanities. Free tickets are available from the Guest Office, CL-1W, Ext. 3124.

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### NEW SAFETY HANDBOOK

Safety policies and practices are detailed in an expanded Fermilab Safety Handbook issued recently. According to Dug Pinyan, senior safety officer, the handbook defines Fermilab's safety program, establishes minimum acceptable safety practices, and outlines fundamental principles of safety. Layman's terms are used, Pinyan says in the preface, and the book is not intended to be an all-encompassing, technical discourse. If you did not receive a personal copy, contact the Safety Office, CL-6W, Ext. 3580.

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Inter/National Film Society Presents

"THE MISFITS"

Saturday, June 10

8:00 p.m.

Fermilab Auditorium

A contemporary "western," this drama was written for Marilyn Monroe by Arthur Miller. The film was the final appearance for Monroe and Clark Gable. The story revolves around three unemployed cowboys and the woman who is their housekeeper. Each man sees the woman as the mother, wife, sweetheart and mistress. The woman is loving but bewildered, knowing only her desire for freedom. Director John Huston includes the carnival atmosphere of a small rodeo and a wild horse roundup in the mountains of Nevada. Admission: \$1.50 for adults; 50¢ for children.

!!! WANTED: 100 VOLUNTEERS !!!

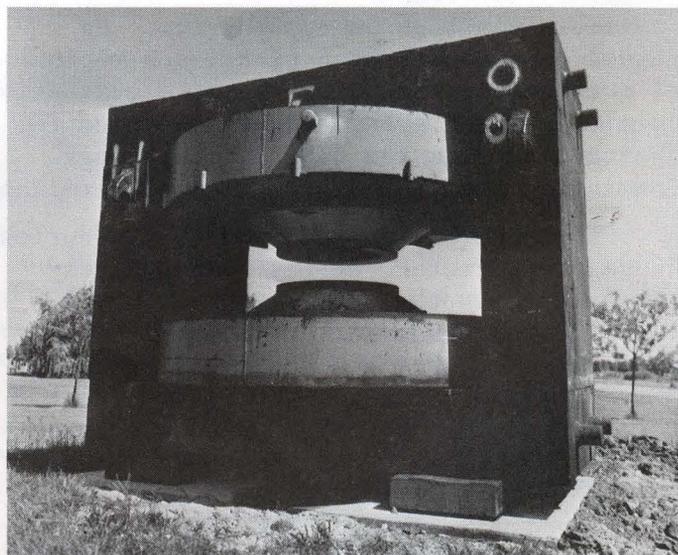
Sunday, July 23

NALREC FAMILY PICNIC

Fermilab's 1978 all-laboratory picnic is being planned. New features will include a cake walk and bike raffle. About 100 volunteers are needed to distribute tickets, start races, conduct games and help with food and other work. If you're willing to help, call Barb Schluchter (Ext. 3199) or Cindy Carra (Ext. 3894), or complete the form inserted with this FERMINews.



...Picnic committee members are: Seated (L-R) C. Carra (Res. Division), B. Schluchter (Res. Division), J. Plese (Directorate), J. Baaske (Accounting): Back row (L-R): C. Grozis (Res. Services), K. Schuh (Accelerator), R. Ovitt (Machine Shop) Chairman. Not shown are M. Palmer (Accelerator), D. Sorenson (Proton)...



...Harkins magnet display on Batavia Road...

NEW OUTDOOR DISPLAY

A 55-ton electromagnet from a cyclotron used by Enrico Fermi is Fermilab's latest landmark.

Beside Batavia Road, between Rt. 59 and the Village, is the iron/steel electromagnet from a cyclotron built by William D. Harkins. The physics pioneer built the machine with student help in 1936. Enrico Fermi was among physicists who used it for neutron-diffusion studies.

The Harkins cyclotron was used later in the Manhattan Project at Chicago. A power crane placed the electromagnet on a reinforced concrete pad.

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