



## COOLING POND ENTERS FERMILAB WATERWAYS

The solution to a mechanical problem in the operation of the linear and booster accelerators at Fermilab will create a new scenic park-like area west of the Central Laboratory Building. In a few weeks Mother Nature will go to work in the operation of these accelerators. Chilly winter temperatures will refrigerate water used in the accelerator system, presently cooled by towers located in the Central Utility Building (CUB) on the west side of the booster accelerator. By springtime grassy landscaped additions around the new water system will be ready for employees and visitors to enjoy.



...New pond west of Central Lab...

About six months ago, experts in Technical Services and Plant Management began to consider replacing the present cooling towers and chromate disposal systems. The CUB provides cooling for the footprint area. In addition to the air conditioning load from the buildings, it also provides cooling for the booster ring and linac tanks. Hence, the CUB is essential to the operation of the accelerator. But the towers were unsatisfactory for winter months' operation. When exposed to freezing temperatures, ice accumulates on various parts. Blowers become iced; ice chunks fall into other parts, causing increasing damage.

Two solutions to this freezing problem were available. The first was to replace the existing towers with others that would not be prone to freezeup. The second option was to use a pond system, and this approach proved to be the more economical solution.

In a second problem area, the present method of disposing of chromates, added as corrosion inhibitors to the cooling water, became unacceptable. The conventional method of controlling mineral buildup in cooling water involves the addition of acids and corrosion inhibitors. By adopting the pond system, no chemicals will be required. The buildup of "salts" should be prevented by chemical interaction with the clay lining of the ponds. The new waterway will take advantage of existing waterways and will require little mechanical equipment, yet provide a moving stream to enhance the west side of the Central Laboratory area.

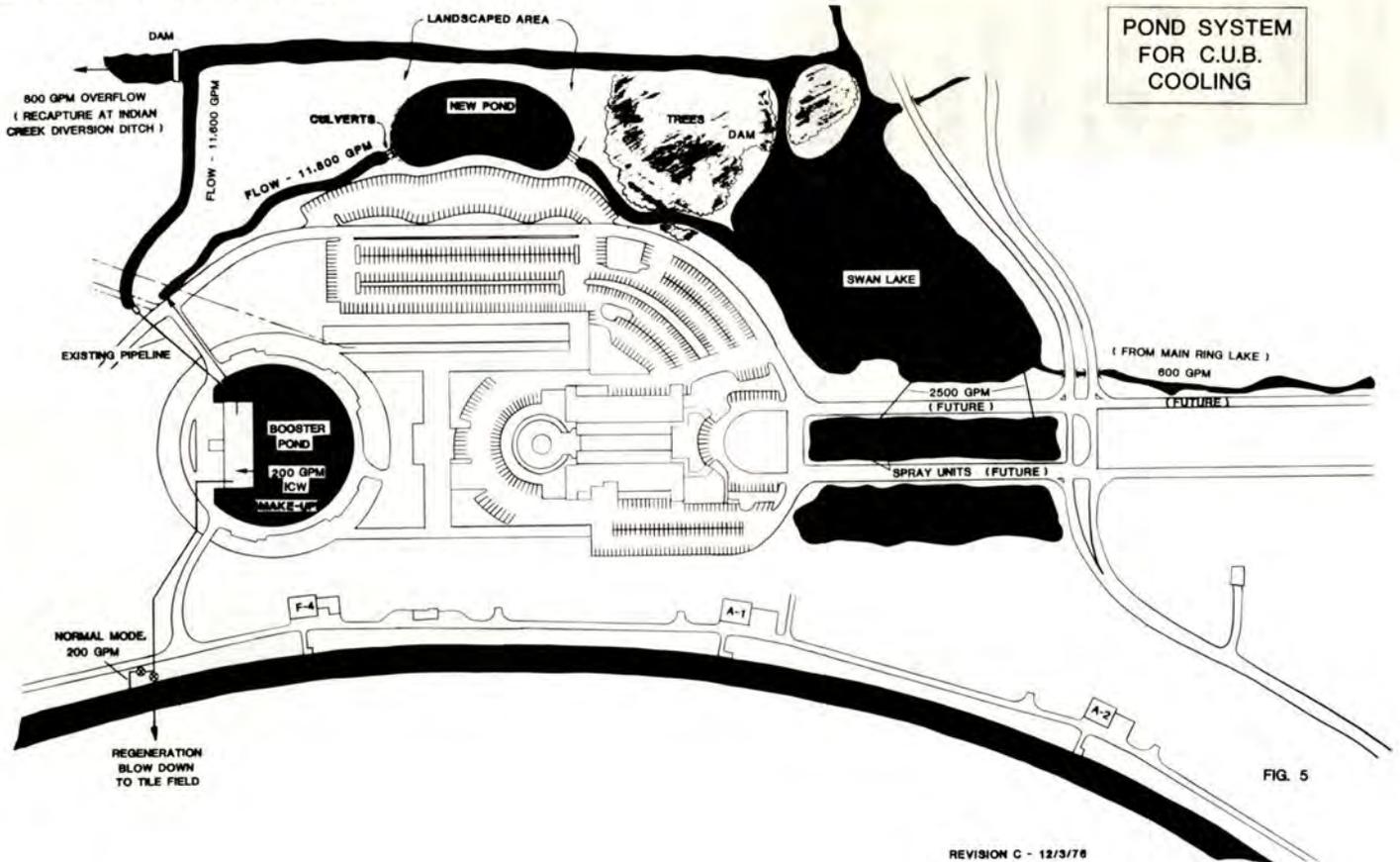
A diagram shown on page 2 indicates the flow of the new stream. Beginning at the Central Utility Building it will be carried underground to the beginning of the newly-created ditch. This being six feet higher than the rest of the waterway, gravity will carry the stream the rest of the way. It will flow through the new pond, into Swan Lake, circling to a ditch behind the line of trees, which returns to the Central Utility Building.

Research to support the new plan included a detailed study of weather data as well as calculations of the heat loss that would be achieved as the water travels this distance. The length of the waterway assures sufficient cooling of the water in the winter. In the summer, some of the towers will be needed to supplement the pond system.

A second phase of this project may include spray units in the center pond at the front of the Central Laboratory, making this pond also a functioning part of the accelerator operation, but adding a pleasant aesthetic touch for the people at Fermilab.

The conceptual design for the new pond system was done by John O'Meara of Engineering Services. The detailed design work was done by Marv Warner, Tom Pawlak, and Joe Raczek of Architectural Services.

COOLING POND (Continued)



...Engineer's drawing of new Fermilab waterway...

FERMILAB HOLIDAY SCHEDULES

Christmas Holiday (full day)	Offices Closed	Thursday, December 23
Christmas Holiday (full day)	" "	Friday, December 24
New Year's Day 1977	" "	Friday, December 31

The full holiday on December 23 comes as the result of combining our half-holidays for Christmas and New Year's Eves. Since Christmas falls on Saturday in 1976, this arrangement provides a four-day Christmas weekend. New Year's Day, 1977, also falls on Saturday and we will observe the event with a full holiday on December 31, 1976.

HOLIDAY SCHEDULE FOR FOOD SERVICES

Thursday, December 23; Friday, December 24, and Friday, December 31:

Breakfast: 8:00 a.m. to 10:00 a.m.  
 Lunch: 11:30 a.m. to 1:00 p.m. (grill only)  
 NO EVENING SERVICE AVAILABLE

ON CHRISTMAS DAY AND NEW YEAR'S DAY NO FOOD SERVICE WILL BE AVAILABLE.

Because of the NALREC Children's Christmas Party on Sunday, December 12, the lunch serving lines will close at 1:00 p.m.

LAST REMINDER...CHILDREN'S CHRISTMAS PARTY Sunday, December 12, Central Laboratory Auditorium and Cafeteria, 1-4 p.m.....CHRISTMAS DINNER DANCE, Friday, December 17, St. Andrews Country Club, tickets from NALREC representatives.....Happy Hour, Wednesday, December 22, 5-7 p.m., Village Barn. For more information, call Helen Ecker, Ext. 3126.

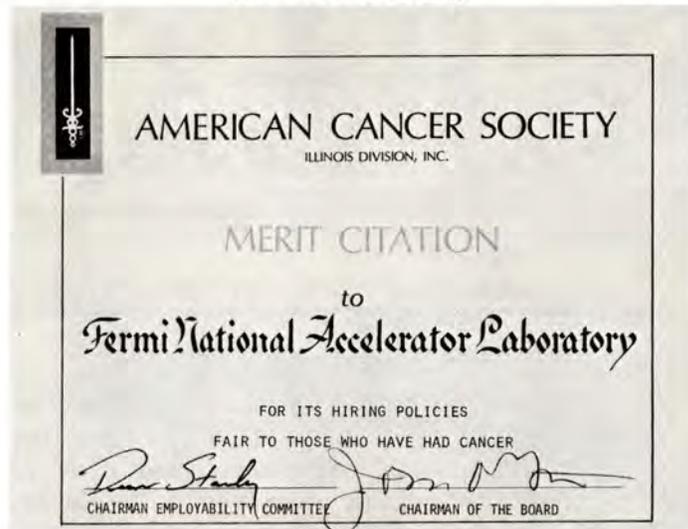
76-1076

AMERICAN CANCER SOCIETY AWARDS FERMILAB



...R. Wilson, John S. Maloney of the American Cancer Society...

76-1086CN



...ACS Citation for Fermilab employment practices...

The South Kane-Kendall Unit of the Illinois Division of the American Cancer Society recently presented the above citation to Fermilab Director Robert R. Wilson in recognition of the Laboratory's policy of hiring persons who have had cancer. The Society's letter accompanying the citation notes:

"Here is our opportunity to praise, loudly and clearly, the policy and action of this federal government agency, which are in the interest of all people, which set a fine example for all employers of people in every field of endeavor, and which no one can disapprove.

"In appreciation of your employment policy, the American Cancer Society is proud and honored to present to you this Merit Certificate of Appreciation..."

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ABOUT USING ELECTRIC SPACE HEATERS IN THE CENTRAL LABORATORY

The use of an electric space heater is limited by the Energy Conservation Committee to a situation where the building space heating system cannot maintain the 68°F. limit of the Energy Conservation Program.

Where such electrical heaters are used they should have a grounded 3-prong plug, not be connected to an extension cord, and have a built in tip-over switch as part of the unit.

Please cooperate to operate heaters safely! If any doubts, call Gene Plant, Ext. 3824, for the Central Laboratory or George Doyle, Ext. 3421 for the Village.

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GRADUATE STUDENT TOUR SCHEDULED

At a recent meeting for graduate students, requests were received for a general tour for students working in experimental groups at Fermilab. A tour will be offered on Thursday, December 16, at 1 p.m., lasting for about 1½ hours. The group will assemble in the main accelerator control room and proceed on foot, ending in the R.F. Building. Vehicles will be provided there for a return to the Central Laboratory area.

A sign-up sheet is now posted with Cheryl Stadtfeld in the Public Information Office, CL-1W. Students interested in the tour are asked to sign up there so that accommodations can be provided for correct numbers.

If there are any questions, call Cheryl Stadtfeld, Ext. 3351.

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FERMILAB INTER/NATIONAL FILM SOCIETY

presents  
THE GREEN WALL

Friday, December 10

8:00 p.m.

Auditorium

Critics have termed this South America's best film. In it a Chilean family copes with the problems of survival in a lush and dangerous land.

An original film short by a young local Naperville filmmaker will also be shown.

Admission \$1.50 for adults, 75¢ for children.

HAVE A MOONLIGHT TALENT?

The Argonne Credit Union office now maintains a file of sideline services offered by employees of the Argonne National Laboratory and of Fermilab, for the benefit of co-workers who might need these services. Register name, phone number, and the service you can provide. Check this file when you're looking for a service.

The Credit Union office at Fermilab has a new location, on the west side of the first floor of the Central Laboratory. Enter by the hallway to the left of the west elevators. See June Olsen or Beverly Miller.

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AT THE OPENING OF THE BASKETBALL SEASON...the Fermilab Hustlers were defeated by Browns Motel 62-42 last Sunday, but come up with a 2 win-1 loss record so far this season.

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DUPLICATE BRIDGE GROUP will play December 13, then shut down until January 10. Any questions, call Marv Warner, Ext. 4430.

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CLASSIFIED ADS

FOR SALE - Cabinet sewing machine, \$20; contemporary round dining table, \$40; Gitane 10-spd. bicycle. Call Curtis, Ext. 4411, or 879-2974.

CAT FOR ADOPTION - 1 yr. old male, black w/white markings, very friendly. Ext. 3494, Jane.

FOR SALE - 4 1972 Ford wheels, cheap. Ext. 3035 or 896-4437 after 5 p.m. Paul Linden.

FOR SALE - 4 graves in beautiful section of Fairmount Hills Cemetery, Willow Spring, Ill. Will sell individually, a pair or all reasonably. John Colson, Ext. 3470.

FOR SALE - 1974 Fiat 128, 2 door sedan, exc. cond., low mileage, AM/FM, radial tires, protective side trim. \$2450. Henry Abarbanel, Ext. 3751.

FOR SALE OR TRADE - 1975 Chevrolet Monza, 5 spd., 4 cyl., hatchback, call X3221 or Page #240.

FOR SALE - Coronet, King Model 602, good cond., 3 yrs. old. \$150. Jim Engelbrecht, X4073.

WANTED TO TRADE - My 2 H-78-14 snows for your E or F 78-14 snows. Equal tread, even trade. Call Jim, Ext. 4421.

FOR SALE - 1 Smith-Corona portable typewriter, manual, nearly new, \$80; 84" oval table, wood-grain formica, great for rec. room, \$50; Judo Gi, coat & pants, size 3 (@ age 15) \$15, coat only, size 2 (@ age 12) \$12, slightly used (new, sells for \$25). Call 584-2801, eves. best.

FOR SALE - Blue/green shag rug, 13½' x 18½', 2 yrs. old, clean, \$400 new, asking \$125 or best offer. Call 879-5079.

WANTED - Used refrig. in good working cond.; 30" range hood, stainless steel preferable. Will pay. Call S. Grillo, Ext. 4915 or Ext. 3353 Wed. morn., Sat. & Sun. afternoons.

WANTED - Working oscilloscope, V.W. gasoline heater, 12 volt model. D. Cosgrove, X4436/4456.

FOR RENT - 2 bedroom condo, \$275/mo., ref. & stove, washer & dryer, air, carpeted, garage, water soft., humidifier, dishwasher, garbage disposal. Greg Lawrence, 896-2687.

FOR SALE - Water bed w/heater & pedestal; sofa, chair, 2 dressers, night stand, TV, end tables, dishes, best offer. Greg Lawrence, Ext. 3677.