

/olume 19

Friday, April 19, 1996

Number 8

NSIDE 🛟

- 2 Collider Detectors Emerge
- 3 KTeV Tests Cesium lodide Calorimeter
- 4 Annual Funding Cycle Begins
- 5 DOE Moves Toward U.S.-CERN Collaboration
- 8 Pine Street Entrance to Get Improvements

DOE Conducts Annual Review of Fermilab

by Leila Belkora, Office of Public Affairs

"When we think of the research program, we're tremendously upbeat. When we think of the budget, we get a little depressed." With that, Fermilab Director John Peoples set the tone for the Annual Program review held April 2, 3 and 4 at Fermilab. Throughout the meeting, John O'Fallon, director of DOE's Division of High-Energy Physics, and his fellow reviewers heard accounts of current and proposed Fermilab research—and discussions of the Laboratory's fiscal dilemmas. "The three-day review allows DOE to validate the strength of our scientific program through its consultants and to learn where we want to be in ten years," says Peoples. The first day, 15 spokespersons presented the status of their fixed-target, collider, and astrophysics projects in a marathon eight-hour session that left panelists mumbling phrases like "information glut" and casting about the room in a vain search for some level of lumbar support.

continued on page 6



Collider Detectors Emerge

Experimenters Get Ready for Three Years of Upgrade Work



by Donald Sena, Office of Public Affairs

Each year, springtime at Fermilab means the return of the Laboratory's warm-weather inhabitants—prairie creatures absent since the first chill of autumn sent them into hibernation. This spring's arrivals also included two other Fermilab natives, which emerged from their burrows for the first time in nearly four years.

CDF and DZero, Fermilab's collider detectors, recently made the 100-foot journeys from their collision halls to their assembly stations, following years of reliable and productive operation that included keeping pace with higher-than-expected luminosity and finding the top quark, one of the most important discoveries in high-energy physics. Some Fermilab staff members who are intimately acquainted with the massive devices say the detectors still stir emotion.

"It's impressive even for those of us that had a lot to do with its construction," said Jim Christenson, project manager of the DZero upgrade. "It is quite an awesome thing."

Other Fermilab veterans had different reactions. John Cooper, head of Fermilab's CDF Department, said that seeing the three-story detector in the wide-open assembly pit—and not in the cramped collision hall—gave him a new perspective.

"I had a strange reaction in that I thought it looked small," said Cooper with a laugh, referring to the detector. The three-story Collider Detector at Fermilab (CDF) made its journey in April.

CDF and DZero made the journeys to their assembly stations, following years of reliable and productive operation that included keeping pace with higherthan-expected luminosity and finding the top quark.

KTeV Tests Cesium Iodide Calorimeter

Aembers of the KTeV ollaboration who played particularly large role in he first test of the alorimeter.

lack row, left to right: /lyungyun Pang, Erik lamberg, Peter Shawhan, heo Alexopoulos (partly idden), Ron Ray, Aaron loodman, Jim Graham, Sob Gatze, Ed Blucher, Sob Tschirhart, Steve Field, eter Shanahan. ront row, left to right, aku Yamanaka, Juliana Vhitmore, Vivian O'Dell, suyoshi Nakaya, Hogan Iguyen. O'Dell and suyoshi hold printouts rom the calorimeter test. Jot present for photo: lam Ben-David, Elliott heu, Rick Kessler, /al Prasad.

Aaron Roodman, Ron lay, and Peter Shawhan how off the cesium odide rack, which has been fitted with one rystal (lower left, behind Ray). The fibers n the rack carry highroltage supply to the letector elements and ligitized signal from he photomultipliers to he subsequent detector electronics.



by Leila Belkora, Office of Public Affairs

"Experimenters divvy up the detector," says KTeV physicist Ron Ray, describing the allocation of engineering and construction jobs to different university groups, "but there comes a time when all the pieces merge into a single working unit." That time has finally come for the detector in the new KTeV experimental



On March 7, members of the KTeV team conducted their first test of the detector system as a whole, starting with a cosmic ray signal in one of the cesium iodide crystals in the calorimeter. This natural test signal activated three major components of the detector. "The fact that we could read out the crystal," says

> Ray, "meant that the crystal and the scintillation counters worked, the trigger system worked, and the data acquisition computers worked."

KTeV collaborators also tested the integrated detector using lasers that give off known amounts of light to the crystals. The test involves the calibration of a large number of constants of the system. "'Oodles' is the term we use to describe the number of constants" says Vivian O'Dell, who is in charge of data acquisition at KTeV. "A lot of people are involved at this stage," adds Ray, "and a lot of them are young people-graduate students and postdocs." Bruce Winstein, one of the experiment's spokesmen, estimates that about 40 man-years have gone into the calorimeter so far.



Annual Funding Cycle Begins

by Judy Jackson, Office of Public Affairs

It's springtime, that magical season when the birds, the buds and the budgets burst into a new cycle of life. The federal budget cycle of 1996 may have resembled the roulette wheel more than the eternal round of the seasons, but the process has begun anew for fiscal 1997. The Clinton administration's Congressional Budget Request, announced last month, set the federal Wheel of Fortune spinning once again for the fiscal year beginning October 1, 1996.

The detailed Budget Request, made public on March 19, calls for a modest increase in total Department of Energy funding for highenergy physics research at Fermilab and other national laboratories and universities. The budget asks for \$52 million, the same level as in fiscal year 1996, for Main Injector construction and requests \$205.58 million to cover Fermilab's operating and equipment costs, up from \$202.05 million in the current fiscal year.

"We are pleased that the Congressional Budget Request provides funding to keep construction on schedule for the Main Injector," said Director John Peoples. He stressed the importance of stable federal funding to sustain a high-quality research program in particle physics. "Stable funding from year to year allows us to make productive use of the nation's investment in large scientific facilities like Fermilab, and to make the improvements that are required for new discoveries," he said.

Deputy Director Kenneth Stanfield noted that the \$3.53 million requested increase in Fermilab's operating and equipment budget, if enacted, would fail to keep pace with inflation, resulting in a loss of effective purchasing power for the Laboratory in FY1997. That loss, coupled with the increased power cost of operating the fixed-target experiments and the costs of upgrading the collider detectors, would mean that the Laboratory must cut operating expenses, Stanfield explained.

"The president's request falls about \$14 million short of our needs," he said. "We must continue our efforts to cut costs, and we will have to reduce staff once again," he said. "We hope to continue with no forced reductions, by lowering the employment caps for each division and section. Reaching the new caps will give us a work force that is smaller by 70 to 75 people by the beginning of 1997." Stanfield expects the smaller staff to reduce operating costs by about \$4.2 million in FY1997.

So began the 1997 funding cycle. Of course, it's a long way between a Budget Request and an actual federal budget. And, whereas in normal times the congressional appropriations process would start with the president's request in February and produce a set of spending bills by the first of October, this election year's budget cycle may once again keep Americans guessing where, and when, the little ball will ultimately come to rest. ■

Deputy Director Ken Stanfield dressed carefully for a presentation explaining the effects of straitened budgets on research at Fermilab.





Fermilab scientists hope to help build the Large Hadron Collider at CERN, and to contribute to one of its detectors, the Compact Muon Solenoid (CMS).

DOE Moves Toward U.S.-CERN Collaboration

by Judy Jackson, Office of Public Affairs

United States participation in building and using CERN's Large Hadron Collider came a step closer last month with the March 28 announcement by DOE Energy Research Director Martha Krebs of an agreement among DOE, CERN, and NSF to develop options for U.S. funding for the project. When the European Laboratory for Particle Physics completes the LHC in about 2005, the new accelerator will replace Fermilab's Tevatron at the energy frontier of particle physics research.

While there is as yet no commitment either from U.S. funding agencies or from CERN, Krebs announced that "it was agreed that the negotiating teams should explore the impact of contributions from the DOE of 225 ± 25 million to the accelerator and 225 ± 25 million to ATLAS and CMS." ATLAS and CMS are two of the four detectors that CERN proposes to build at the LHC; both have several hundred collaborators among U.S. physicists. The U.S. detector collaborations have also requested about \$80 million from the National Science Foundation.

An agreement for the U.S. to help build the LHC could have a significant impact at Fermilab. The Laboratory has been designated the host for the U.S. CMS collaboration, and Fermilab also hopes to develop and build quadrupole magnets for two of the LHC's interaction regions, where proton-proton collisions will take place at seven times the Tevatron's energy.

"It is an opportunity to help build a great accelerator," said physicist Peter Limon, head of Fermilab's Technical Support Section. "At the same time, it will help rebuild Fermilab's capability in superconducting magnet technology and provide a cost-effective means for U.S. scientists to pursue research at the advancing energy frontier. Perhaps most important, it presents an opportunity to begin the kind of worldwide collaboration that the accelerators of the future will require."

Fermilab physicist Dan Green, spokesman for the U.S. CMS collaboration, expressed satisfaction at the recent progress in negotiations between DOE and CERN. "I believe that DOE is on board; I think they've decided that they are going to do this, and I don't think they will allow it to fail," he said. "Our job now is to make best use of the funding that becomes available [for the CMS detector]. We have to stare very hard at the things we are responsible for, to see if we can deliver what we said we would within the financial guidelines." ■

DOE Annual Review of Fermilab

continued from page 1

Highlights of the day included a progress report from KTeV, where experimenters are still debating how they will divide their time between the search for rare kaon decays and the measurement of the level of direct CP violation in the kaon system. On behalf of DZero, Paul Grannis tallied the main results from Run I, such as measurements of the top quark mass and cross section following its discovery in March, 1995, and determination of the W mass from Run Ia. Giorgio Bellettini recounted CDF's primary accomplishments, among them measurement of the top-antitop production cross section and tests of QCD in b hadron production.

Presenters were eager to remind the DOE panel of the strength of their experimental program relative to competition at CERN, for example, or at Cornell. They described how their results help or



Mike Tuts, Columbia University physicist, reviews DZero's plans for the detector upgrade. high-energy physics, and nearly all addressed the question of what measures they have taken to keep costs down in upgrades and new fixed-target experiments. Bob Bernstein reported that his group, investigating neutrino deep-inelastic scattering, has been using the same detector, more or less, for 15 years. Bernstein turned this situation into an opportunity to score a point with the reviewers: "This is re-use of capital infrastructure," he joked.

build on related endeavors in

Panel members asked questions about the readiness of fixed-target experimenters to start taking data, and wondered aloud if engineers and technical support staff were properly allocated among the fixed-target experiments and collider upgrades. One thread that ran through all the discussions was the impact of the so-called flatflat budget, a likely funding scenario for high-energy physics in the coming decade. For example, Fermilab's participation in the Large Hadron Collider at

"I am not using this as a Washington Monument. These are tough times, and the collider program has to be our priority." - John Peoples

CERN may fall short of an ideal level. "Will the CMS detector (at LHC) have to be 'de-scoped' because of lack of funds?" asked DOE panelist Pat Rapp, in a characteristic moment.

By the middle of the second day, panelists began to focus on the central question: How will the Main Injector project, the fixed-target program, and the collider upgrades come together in April 1999? Participants in the meeting debated whether it makes sense to plan to terminate the 800 GeV fixed-target program at this time. Both collider detectors are unlikely to be ready by mid-April 1999 when the

Aain Injector is scheduled to turn on, in part vecause the funding profiles are not optimal. We can't have the detector up and running six nonths after receiving the last eight million lollars," said CDF's Cathy Newman Holmes. Deputy Director Ken Stanfield agreed: "It's just ot going to converge with this scope on that ime scale with the current funding profile."

During the third day, discussions grew nore intense over the prospect of cutting back in excellent research programs. Stanfield emarked, "You can knock down CDF and DZero to the point where they aren't worth loing, to where they won't achieve their goals."

O'Fallon broached the subject of reconsidring the U.S. program as a whole, as recomnended in the 1994 HEPAP report by the Drell Panel: "What you're really saying," he emarked, "is that the time eventually comes vhen options become so scarce that they trancend this laboratory's boundaries, and mean hat we have to look at the national program. Aaybe that time is approaching, or maybe it's lready here," he said. Peoples returned to the dea of terminating the 800 GeV fixed-target rogram: "I am not using this as a Washington Aonument," he said, referring to the ruse of bandoning support for a highly popular item n the face of funding cutbacks. "These are ough times, and the collider program has to be our priority. Two is the right number of detecors now, although in LHC times, we may go lown to one detector."

Stanfield did manage to introduce a note of levity into the sometimes impassioned proeedings. On the morning of the third day, he ppeared carrying a crystal ball—"that's the planning part"—and wearing a tie emblazoned vith U.S. currency—"that's the budget part." itanfield's son, he told the group, had found he tie on a recent trip to Washington, D.C. Aembers of the panel were quick to seize on itanfield's tie as a symbol of Fermilab's budget. You'll leave the room with only half of it," hey warned. ■





Annual Review panel members Pat Rapp (left) and Bob Diebold, of DOE, and University of Oregon physicist Jim Brau listen as George Gollin, a University of Illinois physicist, asks a question. FermiNews editor Leila Belkora (back row) takes notes.



Dave Finley, Accelerator Division Head. One of Finley's transparencies showed a Run I summary from FermiNews (left). "Who chopped down that cherry tree?" asked O'Fallon, in mock severity. "Nobody that works for me," replied Finley.

Pine Street Entrance to Get Improvements

by Donald Sena, Office of Public Affairs

Responding to safety concerns of area residents and Fermilab employees, Kane County officials recently finalized plans to add left turn lanes to Kirk Road at the intersection with Pine Street, Fermilab's main entrance. The county will also build a new left-turn accumulation lane on Pine Street, and pedestrian walkways and signals for the intersection.

"We are delighted that Kane County is doing this," said Ray Stefanski, Fermilab associate director. "The left turn lane is going to make Pine Street a much safer entry into the Laboratory."

The Department of Energy will provide permanent roadway "easement rights" adjacent to Kirk Road from Wilson Street to Fermilab's southern border, which essentially give the county the right to do construction on Fermilab property. The work will cost about \$219,000, and construction will begin in late April or early May and run for about 60 working days. During the construction, Fermilab will alternately close small sections of the north and south sides of Pine Street, allowing two lanes of traffic for exiting and entering the Laboratory as construction progresses on the opposite side. The final design also calls for the present right turn accumulation lane on Pine Street to be eliminated and a left turn accumulation lane to be added. Construction crews will also install a new pedestrian crossing on the north side of Pine Street.

The traffic light at the intersection will be changed from a sensor-activated device to a timed-interval light during construction.

As part of continuing road work designed to keep pace with the area's exploding population, Kane County also plans to improve a large section of Kirk Road between Route 56 to Route 38 in the near future. ■



Collider Detectors Emerge

ontinued from page 2

he 5,700-ton DZero ollider detector olled out in March.

The Journey

The DZero detector made its crawl to the assembly hall in March. The 5,700-ton detector traveled about 100 feet, moving a couple of inches per minute at its fastest. CDF made its journey in early April, taking about 20 hours. From the catwalk above the CDF assembly hall, a viewer had to strain to see the detector's movement; without the sound of the hydraulic machines and the intensity of the half dozen or so workers attending to the detector's every step, one might not have thought it was moving at all.

Wayne Schmitt, of DZero, said the preparation before workers rolled out the detector was a challenge in itself. Schmitt ran off a laundry list of tasks that the DZero staff completed before the detector moved, including removing shielding, breaking down the complex gas lines, moving radiation monitors and disassembling the ventilation systems. CDF staff went through similar preparations in its area.



Upgrades

Both detectors will spend the next three years getting torn apart and put back together by a host of Fermilab scientists and university groups. The detectors need the upgrades so that they are ready for Fermilab's newest accelerator, the Main Injector, now under construction. When Run II begins, the Main Injector will provide much higher luminosity, which translates into more particle collisions per second, greatly enhancing Fermilab's research capability. Each experiment has about 450 collaborators spread among various groups-each working on different parts of the detector. The challenge, according to Christenson and Cathy Newman Holmes, project manager of the CDF upgrade, is orchestrating all the groups and experimenters so that the upgrades get done in a timely and efficient manner.

"There are 1,000 tasks all linked together in complex ways," said Christenson.

Among the myriad jobs, DZero experimenters will position and test a solenoid magnet in the spring of 1997. Then, after a "long wait," DZero collaborators will install the numerous tracking systems now being developed and tested at Fermilab and on university campuses.

For CDF, experimenters will rebuild all the data acquisition systems, triggers and every piece of electronics. Newman Holmes said some of the tasks include installing the new silicon vertex detectors and scintillating fiber detector, as well as replacing the central drift chamber and plug calorimeters. Smaller projects include building a new beam pipe and replacing the ventilation/heating system in the collision hall. She said final installation is scheduled to begin in 1998, and the detector should roll back into place in April 1999.

Both Christenson and Newman Holmes said they need the full three years to complete the work. Money is a key issue with the detector upgrades as well. CDF and DZero need more funding to keep their upgrades on schedule. Insufficient funding will set back the detector's upgrades and could ultimately delay the benefits of the Main Injector.

"It's going to be a real challenge to be ready by [1999], "said Christenson. "We need more money and more people to get ready." ■

FERMILAB CALENDAR

APRIL 16–JUNE 20

Muscle Toning classes, Tuesday & Thursday, 5:30 - 6:30 p.m. in the exercise room of the Recreation Facility. \$50 per 10-week session, paid prior to start of the session. Call x2548 or mail your name, class name and check, payable to Bod Squad, to M.S. 126. You must be a current facility member. Contact Jean Guyer, x2548 or email jeanm@fnal.gov

APRIL 22

In honor of Earth Day, Fermilab will offer two nature walks on the Laboratory campus, both from 11:30 a.m. to 12:30 p.m. The first walk will be a woodland tour led by Robert Betz, Fermilab prairie consultant. At the same time, Peter Kasper will lead a bird-watching tour. Also, an environmental display will be set up in the Wilson Hall lobby. Please call Roads and Grounds at x3303 for more information.

APRIL 24

The Wellness Works Committee presents "Count Down Cholesterol And Heart Health." Noon-1 p.m., One West.

APRIL 25

"Take Our Daughters and Sons to Work Day." The Office of Public Affairs and the Lederman Science Education staff have planned activities for the children of Fermilab employees and users, including "Kids as Journalists" and science demonstrations at the Lederman center. Employees should check with their supervisors regarding bringing children to work that day. Public Affairs (x3351) mailed further information to all Fermilab employees and users.

APRIL 25

Along with the Sons and Daughters activities, there will additional nature events in honor of Arbor Day. There will be a tree and shrub planting from 11:30 a.m. until all the trees and shrubs are planted. The planting site will be the corner of B Road and Wilson Road. Lunch will be available while supplies last. Please bring a shovel, boots and gloves and be prepared to get dirty. (Rain date is April 26.) On April 25, Fermilab will also offer two nature walks, both from 12:15–1:15 p.m. The first walk will be a woodland tour led by Robert Betz, Fermilab prairie consultant. At the same time, Peter Kasper will lead a bird-watching tour. Please call the Roads and Grounds crew at x3303 for more information.

APRIL 26

The Fermilab International Film Society will show THE CITY OF LOST CHILDREN at 8 p.m. in Ramsey Auditorium. Dazzling special effects. 112 minutes; admission is \$4.

APRIL 26-27

Workshop on solar neutrino experiments, aimed at those familiar with the basic issues. The workshop will focus on options for both near-term and long-term future experiments. Curia II, 10 a.m. to 6 p.m. on Friday, 9:30 a.m. to 1 p.m. on Saturday. Consult http://fnas08.fnal.gov/ or email solarnus@fnas08.fnal.gov for further information.

APRIL 29

Fermilab and TIAA-CREF are sponsoring an interactive teleconference titled, "Save! Your Future Depends on You." It features leading experts on retirement savings who will discuss how Americans save and how you can achieve a financially secure future. Sylvia Chase, news correspondent for ABC-TV's Prime Time Live, will moderate the discussion. Panelists include Olena Berg, Assistant Secretary of the Department of Labor; Dallas Salisbury, President, Employee Benefits Research Institute; and Tom Jones, Vice Chairman, President and COO, TIAA-CREF. The teleconference will take place between Noon and 1:30 P.M. in One West.

MAY 2

The Wellness Works Committee presents, "Debtors' Rights, Personal Bankruptcy," in One West from noon to 1 pm.

MAY 3

Fermilab Lecture Series presents, "Will Science Survive The New Dark Age?"

Professional magician, author, lecturer, amateur archeologist and astronomer James Randi has long been a noted international authority on all things paranormal. His lecture at Fermilab's Ramsey Auditorium at 8 p.m. will examine how political correctness has interfered with science, how academic politics can suppress genuine progress, and how he has helped examine where science has gone wrong.

MAY 15

The Wellness Works Committee presents, "Annual Employee Health & Fitness Day," in One West from noon to 1:00 pm.



Lunch served from 11:30 a.m. to 1 p.m. \$8/person Dinner served at 7 p.m. \$20/person

For reservations call x4512 Dietary Restrictions Contact Tita, x3524

Wednesday Lunch April 24

Lebanese Chicken Zucchini Pancakes Carrot Salad Baklava

Thursday Dinner April 25

Seafood Salad Stuffed Flank Steak Risotto Lemon Shortcake with Strawberries

Japanese Rice-Pounding Festival



Above: At Fermilab's annual rice pounding ceremony, on March 16, Jun Iwai rhythmically pounded rice in the tree stump with a wooden mallet; Hirotoshi Toyoda reached in between blows to knead and turn the mass. Antonio Bassi, Irena Fiori, and Kyoshi Yasuoka looked on. All are CDF collaborators.

Right: Jun Iwai demonstrates rice pounding with a wooden mallet. The rice, which has been steamed, sits in a bowl carved from a tree stump. When dried and formed into cakes, the rice hardens. In that state, the rice keeps and travels well; to soften it again for eating, the cakes must be heated. Fermilab's Japanese users say the rice-pounding is a New Year's tradition in Japan, and brings health and prosperity in the coming year.



MILESTONES

HONORED:

Jordan Tamraz Caruso, the advertising agency used by Fermilab's Employment Office. The Employment Management Association awarded its Advertising Excellence Award to the agency for a college recruiting newspaper advertisement for Fermilab with the headline, "The Ultimate Crash Course," accompanied by a photograph of the Tevatron's tunnel.

RETIRED:

Jim Boye, I.D. #2274, on January 11, 1996. He started at Fermilab December 10, 1973. Boye worked for the Research Division's Survey and Alignment Group, doing group computations and general office support.

CLASSIFIEDS

FOR SALE

■ Two navy loveseats for sale. Asking \$650 or best offer. Please call (708) 365-2057 in the evening or (708) 252-8806 during the day.

■ Four tickets for 1996 Indianapolis 500. Seats numbered 1 thru 4 (first 4 seats off an aisle), high, SW vista, excellent seats. \$260 for all four; will NOT separate. (708) 232-8344.

■ Three bedroom, one and one-half bath, two-story house. Large master bedroom, kitchen and family room. Attached garage, fenced backyard, on cul-de-sac. Fox Valley Villages–Aurora. \$133,900. Call Dee at x2354 or (708) 851-1268 or dhahn@fnal.gov.

■ 1986 Isuzu Trooper II, 4WD, red, 5-speed manual, PS/PB/AC, AM/FM, cassette stereo, luggage rack, towing hitch, very well kept (interior and exterior), runs great, 92k miles. \$4,000. Call Alex at x3873 or (708) 393-6774, email: bogacz@calvin.fnal.gov

■ Yorkshire Terrier puppies. Available May 3. Two males, small and cute, will have first shots and be dewormed. Call Mark at x3719.

■ 1986 Cadillac Fleetwood Brougham, fully loaded, leather interior, clean and in excellent condition. \$2,500. Call Mark at x3719.

■ 286 computer, monitor, keyboard and mouse, \$275; dot matrix printer, \$25; two end tables–dark pine, \$50; two table lamps, \$50; sewing machine cabinet, \$50. Call Rich at (708) 690-1691 or at x3880.

■ Skis and poles for a person about 5'8" tall. \$15. Call Jim Hawtree at x4287.

WANTED

■ Old metal or porcelain signs and old gas station items, such as oil cans, hats, uniforms, globes, etc. Call Jim at (708) 556-3934 or at x3759.

■ Double boiler and pressure cooker (must hold quart jars). Call Jim Hawtree at x4287.

LAB NOIES

STOCKROOMS TO CLOSE FOR INVENTORY

The Fermilab stockrooms will close for annual inventory as follows: Wilson Hall stockroom, closed Friday, May 17 at noon, will re-open Monday, May 20 at 12:30 pm; Site 38 stockroom, closed Monday, May 20 and Tuesday, May 21, all day both days. Please plan accordingly. Questions? Call the supply office at x3808.

PRESCHOOL COOPERATIVE

NALWO's preschool cooperative for children ages 18 months to 5 years is re-forming and meeting in a new location in the Fermilab Village—the shelter area of Dorm 3. The playgroup, which meets Mondays and Wednesdays and requires each parent to work one day a week for three weeks, costs \$24. NALWO urgently needs new members for the playgroup. Contact Mary Brandt at (708) 961-5194 for more information.

FIRE SAFETY

The Fermilab Fire Department asks, "Did you remember to change your smoke detector batteries when you moved your clocks ahead?" Smoke detectors can save lives. Please call Capt. Steve Lusted in the Fermilab Fire Department at x3428 for more information.

PRESTBURY GOLF LEAGUE

Hey duffers! The Fermilab Tuesday night Prestbury Golf League has an opening for a four-person team. Or sign up for a regular or sub-spot on an existing team. Contact Bob Andree at x3703 or Rod Klein at x4682.

WEIGHT WATCHERS SESSION

The program is nutritionally balanced, flexible and a safe method for weight reduction. The 10-week, one-hour sessions are offered at Fermilab. The cost is \$129 for the 10 weeks. If interested please sign up in Medical or call Mae at x3232.

ORANGE CYLINDERS

The orange cylinders for depositing radiation badges have moved from the Wilson Hall atrium next to the elevators to the ground floor next to the elevators.

FermiNews

is published by the **Fermilab Office of Public Affairs** MS 206 P.O. Box 500 Batavia, IL 60510 708-840-3351 ferminews@ fnal.gov

Fermilab is operated by Universities Research Association, Inc. under contract with the U.S. Department of Energy.

The deadline for the Friday, May 3 issue of FermiNews is Tuesday, April 23.

Please send your article submissions, classified advertisements and ideas to the Public Affairs Office, MS 206 or Email: ferminews@fnal.gov

FermiNews welcomes letters from readers. Please include your name and daytime phone number.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1995--646-065/00027

