

Education Center formally opens doors



Robert Wilson, Stanka Jovanovic, John Peoples, Leon Lederman, Admiral Watkins and Marjorie Bardeen stand outside of the newly opened Leon M. Lederman Science Education Center. In his welcoming speech, John highlighted the events leading up to the completion of the center and cited the commitment of Fermilab and DOE to the realization of this goal.

Thousands of kids will come through this center. But what I'm interested in as much, is the one kid out of a thousand who will see one of these demonstrations, something will change in him and he'll go on to do something which changes the way human beings live on this planet.— Leon Lederman

A dedication ceremony held September 25 formally opened the doors of the Fermilab Science Education Center to the public. Named in honor of Fermilab's second director, Leon M. Lederman, the 8,200 square foot building houses the staff and facilities for Fermilab's education programs which yearly attract thousands of teachers and students from around the country.

Secretary of Energy James D. Watkins and his wife traveled to the Laboratory to take part in the opening ceremony along with Director John Peoples, Leon Lederman and Marjorie Bardeen, program manager of the Fermilab Education Office. Admiral Watkins noted that the Leon M. Lederman Science Education Center exemplifies the department's commitment to utilizing vast scientific resources to improve math and science education in the nation.

Important elements of the new center are a science laboratory which accommodates 60 students and a computer and technology classroom for 24 students. In addition, an array of interactive teaching stations, environmental field stations and audio-visual materials invite exploration and experimentation. The interactive displays focus on

four areas particularly appropriate to the research conducted at Fermilab: accelerators, detectors, scattering experiments and the powers of ten, which presents the very large and the very small in nature.

The Fermilab Education Office currently offers a variety of institutes and workshops for teachers and research appointments for students and teachers from all over the United States. Local teachers bring their students to the Center for a variety of stimulating and innovative classes, for field experiences in the reconstructed prairie and for creative investigations in physics. The Teacher Resource Center, a clearing-house for ideas, material and resources, provides an educational hub that enriches the teaching of mathematics and science in the surrounding community.

The Lederman Science Center is open to the public Monday through Friday between 8:30 a.m. and 5 p.m. Groups of more than five should call first for an appointment.

Fermilab's education initiatives are one element of DOE's nationwide strategy for improving mathematics and science education in America. In May 1990, Admiral Watkins issued a Secretarial Notice that vastly expanded the department's education mission. In 1991, more than one million students, teachers and parents participated in more than 800 DOE-funded education programs.

Education Center named for Leon

The Fermilab Science Education Center was officially christened on September 25 the Leon M. Lederman Science Education Center in honor of his contributions to precollege science education.

Leon has long recognized the importance of science education to the intellectual and economic health of society. In 1979, as director of Fermilab, Leon started *Saturday Morning Physics* for high school students, a program that continues to graduate 300 students annually. At the time, Fermilab funds could not be spent on precollege education programs, so Leon encouraged the establishment of Friends of Fermilab, a not-for-profit corporation dedicated to supporting Fermilab precollege programs. Since its incorporation in 1983, Friends of Fermilab has raised over \$2,600,000 from public and private sources including DOE, NSF, the state of Illinois and various private foundations. Today, Friends of Fermilab and Fermilab offer over 50 precollege programs that served 32,000 students and 11,000 teachers in FY92.

Another initiative that profited from Leon's involvement is the Teachers Academy for Mathematics and Science designed to support Chicago public school reform by enhancing teachers' abilities to teach mathematics and science. Leon led the drive to persuade several organizations to sponsor this ambitious effort.

As the Governor's Science Advisor, Leon helped shape the Science Literacy Grant Program of the Illinois State Board of Education. Ten million dollars is available annually for projects to enhance the teaching and learning of science and mathematics.

In addition to supporting these specific initiatives for precollege education, Leon has served as the president of the American Association for the Advancement of Science.

Continuing his work as a champion for enhanced science and math education, Leon recently joined the staff of the Illinois Institute of Technology where he will teach physics this fall. According to

Quality corner

Two employee suggestions regarding sick leave usage were submitted to the Office of Quality Assurance and Conduct of Operations. Chuck Marofske, head of Laboratory Services Section has addressed these suggestions.

Suggestion:

Every employee is given a certain number of annual paid sick days. Some employees do not take any sick leave and even in the case of illness, prefer to use their vacation days. On the other hand, there are some employees who abuse the sick leave benefit, using the privilege for additional vacation time.

I suggest that the Lab calculate the average number of sick days used per employee. Say the average number for 1991 is 10. Any employee using only n ($n < 10$) sick days will be rewarded by receiving $(10-n)$ days of pay.

If the Lab can adopt this policy, employees will be motivated to reduce the use of sick leave. As a result, Lab-wide sick leave usage should drop. It is not impossible under this system to drop the Lab average from 10 days to five days in just a few years.

Initially, the Lab may pay 5 days worth of pay to employees who use only 5 days of sick leave, but later when the Lab average drops the employees using five days would be paid nothing additional and the Lab would get one full week's worth of work per employee without paying anything.

Response:

Accepting this premise assumes people will come to work sick, that people take sick days which are unnecessary and that we can manage an increase in overall costs of paid leave time since minimum payout will be at our current average.

The averaging down concept would require a contract modification. The Laboratory would have difficulty with the position that the current use of sick leave is inappropriate or that management wishes to adopt a program that would increase the cost initially. Once you set a minimum pattern, it is difficult to back off. The cost will come either in time off or buy backs. A basic sick pay concept is to avoid having persons report to work unhealthy. Accident rates increase, quality is more difficult to maintain and the opportunity exists to spread illness to other

workers, thereby further reducing our effective workforce.

Another aspect of the Laboratory sick pay provision is that the program provides a form of income insurance which can extend for as long as six months. Consequently, average use results from a mix of long-term absences combined with a larger number of short-term illnesses. The long-term absences will not decrease with an incentive geared to short absences. Consequently, the cash plan might not have a significant impact on our overall average use.

Suggestion:

There are employees who leave the Lab with a considerable amount of sick leave unused. It would be a nice gesture if the remaining sick leave could be deposited in an emergency account. Employees with long-term or terminal illnesses, who have used all of their sick leave, could then use the emergency account. The account could also be available to employees with sick children requiring extensive hospital stays. Of course, all employees who needed to take advantage of the emergency account would have to provide statements from doctors and hospitals and use would not be granted for short-term illnesses. The account would not be widely broadcast, but if an employee were truly in need, a gift from fellow employees would help a lot.

Response:

The Laboratory already has a provision, which is exercised but on an infrequent basis, which allows persons to receive additional sick leave at one half pay for as long as they had sick leave available at the beginning of the disability period. This safety valve has been effective in cases where there have been repeated traumas experienced by individuals.

The sick leave plan is designed to provide income protection for the individual who is ill and unable to come to work. It does not encompass benefits for workers who stay home from work for family reasons. The Laboratory has a rather progressive annual leave plan which allows individuals to use increments of time to cover such family need absences.

We enjoy a very liberal total sick leave plan in comparison to many organizations. The record of our work force over the years with regard to use is outstanding. Our average lost time overall reflects a conscientious response from workers to be available for assignments. In recent years, there have been tremendous pressures on group medical insurance costs due to technological advances and inflation in the medical industry. These dramatic cost escalations

have impacted on the Laboratory's expense to maintain quality medical insurance. Considering a broad perspective of the total cost of insuring illness, you must include sick leave along with medical costs as a part of the package providing peace of mind and protection to Laboratory workers. Our excellent record with regard to sick leave has been a factor in limiting the cost-sharing impact on employees when accounting for the increased outlay for medical benefits.

If you have a suggestion on how to improve the quality, efficiency, reliability or effectiveness of a Laboratory service or operation, please send it to the Office of Quality Assurance and Conduct of Operations, MS 200.

Leon cont.

Lewis Collens, IIT president, Leon will work closely with IIT staff and board to "craft a new vision for urban science and technology education."

At the dedication ceremony, Leon spoke with characteristic humor. "I am awed by this honor, but I'm also frightened and nervous because I notice that those letters on that plaque are easily removable. Therefore, I am afraid I have to keep running and try to do whatever I can to help make this center something unique and special."—*Marjorie Bardeen*