

Fermi news

FERMI NATIONAL ACCELERATOR LABORATORY

Linac reaches upgrade goal

On September 4 the new upgraded Linac reached 400 Mev, one week after the start of commissioning.

Commissioning began August 27, and at approximately 3:30 p.m. on September 4, the beam reached its new design energy goal.

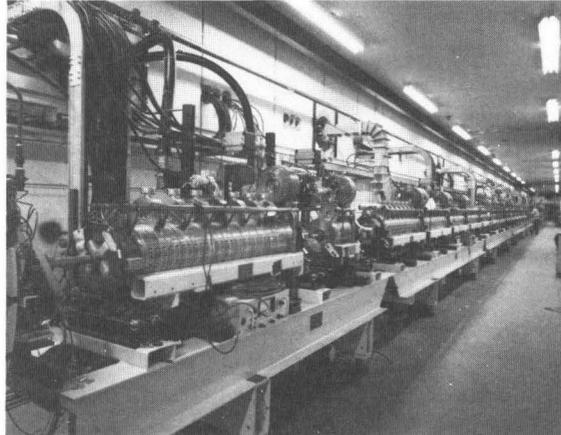
Bob Noble of the Linac Department said they did not expect to get beam that fast. "The fact that it took only seven days to get 400-Mev beam out of the new Linac is really remarkable. Other linear accelerators take weeks of commissioning. It was more successful than anyone thought it would be."

The successful commissioning marks the efforts of many people involved with the Linac upgrade project. The project was designed to increase the beam energy from 200 Mev to 400 Mev. This in turn will create a 75% increase in the Booster beam intensity and produce a higher luminosity in the Tevatron. The commissioning is the first phase of the accelerator upgrades that will eventually culminate in the commissioning of the Main Injector. The upgrading of the Linac involved replacing the last four Linac drift tube cavities with seven modules of newly produced side-coupled cavity accelerators.

The overall commissioning of the Linac has run very smoothly to date, said Bob. Other than a damaged 200kw varian klystron that was replaced on September 3, things have gone well. "It's been remarkable how small the problems have been. We haven't had any major problems, other than the klystron."

The first two days following the approval to proceed with the commissioning involved setting up the old as well as new Linac. The Linac Department wanted to ensure that the parameters were set in order to bring up the old Linac, said Bob.

On August 30, beam was accelerated through the first of the seven modules at approximately 152 Mev. Over the rest of the week from August 31 to September 2, the Linac Department did a lot of transverse matching to get the beam down to the end of the Linac. Bob said that much time was spent determining what quadrupole settings should be set to in order to move the low-energy beam down the Linac. "It's not of any interest when you are accelerating beam, but for com-



missioning studies it is important for diagnostics."

On September 4 at approximately 3 a.m., beam was accelerated through Module three to 229 Mev. Over the next 12 hours, said Bob, things moved continuously and sequentially. "We got modules four, five, six and then by 3:30 p.m. we got module seven at 400 Mev. It was pretty rapid at that point. The transmission through the Linac was roughly 80% transmission—which is decent for a first pass through the machine."

Bob said there is still more work ahead. The commissioning is expected to continue for four more weeks. In that time, the Linac Department wants to reduce the percentage loss to one-tenth of a percent. Following the outcome of the shielding assessment, which was conducted on September 8, the department also wants to begin running at a higher current and pulse length. "Ultimately, we want to get back to 30 or 35 milliamps and 30 to 40 microseconds of beam pulse, which is what the Linac used to run at," said Bob.

Their final push is now to get the beam transferred down the transfer line and injected into the Booster. "Technically the (upgrade) project ends when the beam crosses the stripping foil and is injected into the Booster. Hopefully we will inject more intensity into the Booster as time goes on. The intention is that the Booster will preserve that intensity and transfer it to the other machines and use it to increase the luminosity."

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Machine Shop working to reduce waste

In the last issue of *Ferminews* we began a series of articles on waste minimization efforts at the Laboratory. In the first article we discussed the high cost of waste. In this issue, we examine some of the tactics that are being used to reduce waste and its related cost.

Technical Support's Machine Shop has been making a strong effort to reduce its waste. Over the last two years, they have established three major initiatives.

Contracting with a major waste recycler, the group has eliminated the need to buy special solvents for their Machine Repair Department. The contractor now provides the solvent, changes it, cleans the tanks and removes the old solvent.

Charles Matthews, Machine Shop superintendent, said that this has done a lot to reduce costs. "We no longer need to buy that solvent. We were buying 50 gallon drums at probably four or five drums a year. Recycling is a great help."

The Machine Shop is also recycling machine coolants. An outside vendor removes the coolant from the machines, cleans the tanks, centrifuges the coolant to remove oil and replaces the clean coolant in the machines. This has resulted in reducing the amount of coolant the shop buys by at least 50%, said Charles.

In an attempt to further reduce the amount of coolant they must purchase, and at the same time improve the environment, the Machine Shop is testing a vegetable-based coolant used as a cutting oil. This environmentally-friendly coolant cleans up with water. Charles said the use of the vegetable-based material will give them longer tool life, improved work environment through the elimination of mist in the air and a reduced waste stream. "This new cutting oil is applied in very minute amounts, so there is no waste. It is applied directly to the cutting tool in drops per second versus gallons per minute."



Carl Penson, Ray Green, Charles Matthews and Chester Shaw at the Machine Shop's scrap metal recycling bin. The shop also takes part in this BSS initiative in an effort to further reduce waste.

According to Charles, the application of the new vegetable-based coolant will begin this month and will be used wherever there is a suitable application.

Using the new cutting oil will also allow
Continued on page 8

Dosimeter readings reexamined

At the beginning of this year, Fermilab began using a new type of personal dosimeter badge that uses Thermoluminescent Dosimeters (TLDs) to measure beta/gamma dose and a CR-39 plastic strip to measure neutron dose. However, as with any new system, some problems arose in using the new badges. According to the ES&H Section, these problems are now being resolved.

One problem with the new badges was the increased time it took to get the first quarter's readings back from the vendor. The electrochemical etching and subsequent scanning of the CR-39 foils is a time-intensive process and the vendor at first underestimated how long it would take. In their defense, it should be mentioned that although CR-39 dosimetry has been around for some time, it has never before been used on the scale that Fermilab is now using it. Even so, when the first set of results arrived from the vendor, there were a number of spurious neutron doses. The fact that there was no associated gamma dose, as will almost always be seen with neutron exposures, rendered the readings suspect. Further investi-

gation revealed that many of the persons who received such readings could not possibly have been exposed to neutrons.

Furthermore, at each wear period, Fermilab sends to the vendor a group of badges which have been irradiated, or "spiked," with a known dose. Part of our quality assurance program is to make sure that the vendor, without knowing which badges were spiked or how much the dose is, can return accurate readings of the spiked badges. There were several inaccuracies in the initial spike readings.

The vendor has addressed these problems by re-reading the first quarter badges. They have acquired new scanning instrumentation for the CR-39 foils that allows them to read the foils faster and more accurately. The new instrumentation and methodology appears to have ended the spurious neutron readings and has certainly increased the reading speed.

The vendor also has recalibrated the TLD data to the type of radiation fields common to Fermilab. The initial calibration assumed that 50% of the TLD dose was due

to low-energy X-rays rather than high-energy gamma rays, a type of field that is more common to a nuclear reactor facility. Fermilab's TLD doses are almost entirely due to high-energy radiation. The recalibration of the TLD data brought the readings closer to the expected values.

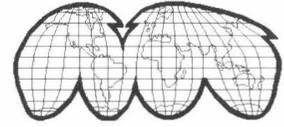
The result of the rereading is that two sets of first quarter reports were issued and widely posted. The first report should be disregarded. The second report contains readings of the same badges using the upgraded algorithms and equipment.

Although performance has improved, some questions remain. The ES&H Section is working with the vendor to resolve them and is planning additional spiking tests.

The first reports were also lacking lifetime-exposure records due to a failure, both on our part and the vendor's, to integrate our previously existing records. We apologize for these inadequacies and for the length of time it is taking to resolve them. We appreciate your patience so far and will continue working for improved dosimetry in the future.—*Dave Boehnlein*, ES&H Section

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FESS ... UP



The confessions of a section seeking world class

Work Request Center • Telephone x3434 • Fax x8769 • Mail Station 300

From the section office...

At FESS we are taking a new look at customer service using as a model the L.L. Bean view of their customers:

- A customer is the most important person we ever deal with...in person, over the telephone, or through the mail.
- Customers are not dependent upon us...we are dependent on them.
- A customer is not someone to argue with or to match wits with. Nobody ever really wins an argument with a customer.
- A customer is a person who brings us his or her needs. It is our job to fill them expediently and efficiently.



We in FESS are striving to improve our service to you, our customers.

—Phil Neeter, Maintenance System Coordinator

In progress...

The T&M group is still involved in extensive Accelerator shut down work especially in the electrical repair/maintenance area.

Better for you...

In preparation for the upcoming fall and winter seasons, various buildings are scheduled for upgraded heating systems primarily in the Village area.

Main Injector update...

REMINDER: Access is restricted to the Main Injector area.

At your service...

The Building Inspection and Repair (BIR) Group manages various site-wide service contracts: trash removal service, propane gas service, roof repair, overhead door repair and glass repair. In-house carpentry and painting service and building inspection are also accomplished through this group. For information or to request service in any of these areas, please call Don Rapovich, the BIR manager, at x3302 or page 0812.

Attention building managers...

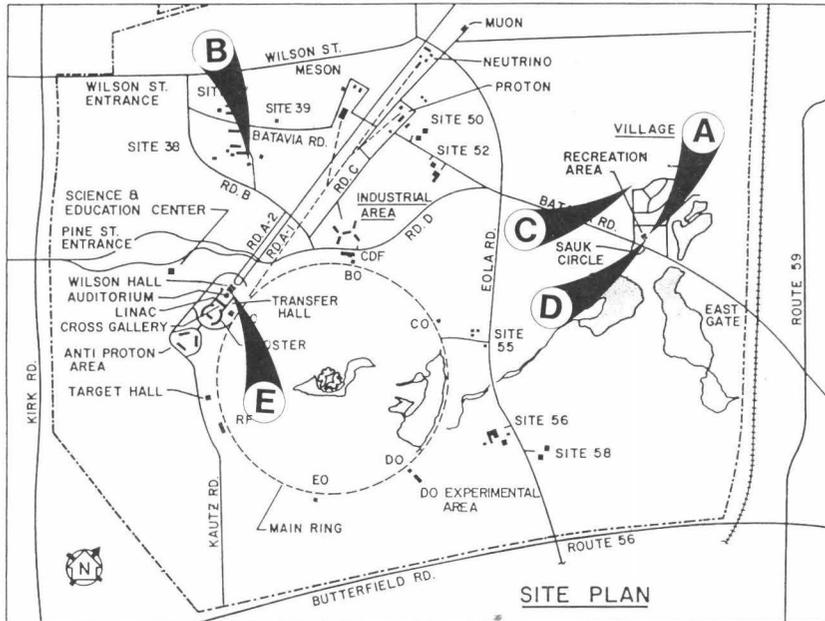
With the weather outside soon turning frightful, is your building ready for winter? You may have some concerns regarding potential pipe freezeups. Please take the necessary time to tour the exterior of your building and locate any areas where cold weather may enter and cause damage. You still have some time for corrective action before the very severe weather sets in. If you need assistance or have a need for corrective action, please call the Building Inspection and Repair Office at x3807.

Family Day bison contest results...

The contest offered kids 12 and under a chance to guess the weight of the herd's largest bull and the number of buffalo in the herd. There were 44 entrants (one disqualification—a 31-year-old kid). The first place winner was Ted Ullrich, son of Fred Ullrich /Media Services; second place was secured by Jillian Irvin, daughter of Jeffery Irvin/ Business Services. The prize for both winners was a one ounce silver medallion commemorating the 25th Anniversary of the National Buffalo Association. Congratulations to both winners and a big "Thank You" to all contest participants.

FESS September projects update

Fermilab Facility Facts: Fermilab farmland will yield 6,000 bales of hay this year.



- A. Work is nearing completion on the ladies' shower room in the Village gym.
- B. Remodeling work is underway at the Fire Station.
- C. Construction begins on the new URA-funded soccer field located at Sauk and Neuqua in the Village.
- D. Refurbishing of the Village volleyball courts begins.
- E. "You can see clearly now"— Fall window washing commences at Wilson Hall.

'fessin up

Don Hanson (FESS/R&G) has some 'fessin up to do. Don is the bison herdsman. His job description states that he must take care of the herd, which he does in an almost fatherly way. Don started out in the Roads and Grounds group 18 years ago. Soon thereafter, Don started working with the buffalo and has been the only herdsman for the past 10 years. "I get help if I need it," Don says, "someone from the shop will come out to help me. But, most of the time I am out here by myself."

Don's day starts out early with feeding the herd. He piles some baled hay stored in the barn onto his tractor and drives it into the pasture. The buffalo see him coming, knowing breakfast is on the way. They start to move toward the feeding area. Don checks the herd daily. He watches for subtle changes in the animals' appearance, how they stand or walk, if they limp or if the coats are changing. He knows all of them by sight. "He's the young bull," says Don and points out, "Shorty, there, is the older one."

Riding into a buffalo herd is a humbling experience. You don't realize a buffalo's massive bulk until a herd bull is staring you

down, even riding in a high-off-the-ground farm truck.

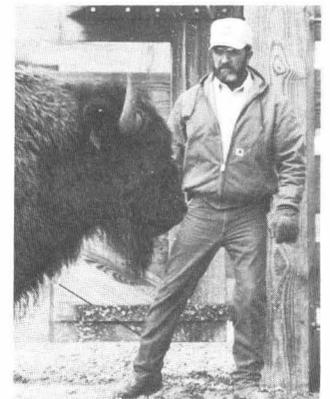
But Don says that although he knows the buffalo, they don't know him. "They only know that the tractor brings the food." During calving season he checks them at least three times a day. He even assists the birthing when needed, mostly for a breech birth. When he does his first check, he can usually tell if a birth is imminent and will keep checking until calving begins. He is concerned about a calf with a slight limp and a young female that calved a little too soon. She seems to be doing okay right now. In addition to the hay, the herd is fed a 14% dairy pellet. Each buffalo eats about five to seven pounds of feed a day during the warmer weather months. In the winter each consumes 10 pounds a day.

There are 84 buffalo in the herd right now including two bulls and a number of calves. They get wormed twice a year and vaccinated once a year. The new calves also get ear tagged. They all will be checked by October 1.

Don and the Roads and Grounds Crew are responsible for plowing, seeding and

baling the hay in the 60 acre hayfield just south of the barn which is where the buffalo feed is grown. Don collects the manure and spreads it in the 80 plus acre field. "Good soil in that field," Don says. After his "chores are done on the farm" Don reports back to the Road and Grounds Office to see where he is needed. During the winter snow months, he is responsible for plowing the Industrial and CDF areas.

Don's job is one of the unique positions in the Facilities Engineering Services Section, although unique job descriptions abound at Fermilab. Don is at home where the buffalo roam or in the cab of a plow pushing snow from the road on a cold winter day at four in the morning.—Connie Kania



Benefit notes

Don't forget

The health plan's open enrollment period ends September 24, 1993. If you are going to make a change, your completed enrollment forms must be submitted to the Benefits Office by September 24, 1993.

Correction to dental benefit illustration

The dental benefit comparison that was part of the initial open enrollment materials contained some errors. The column showing your out-of-pocket costs under the CG Traditional Plan should have dollar amounts approximately 5% to 7% higher. Corrected copies are available from the Benefits Office. Please keep in mind that your actual costs under the CD Traditional Plan depends upon your dentist's actual charges.

Prairie seed harvest

The Prairie Committee will hold its annual seed harvest on two dates in September and October at the Laboratory. Volunteers are needed to hand gather seeds that will be used to maintain the diversity of plant life in Fermilab's 900-plus acres of reconstructed prairie. Bring your family out to the Laboratory to learn more about the native grasslands that were destroyed during the area's settlement in the 19th century. Harvesting will take place on Saturday, September 25 and Saturday, October 30 at locations on the Fermilab site. The harvest will start at 9 a.m. and will last until 3 p.m. Follow the on-site road signs to the harvest areas. Volunteers may bring their own lunches and picnic on the grounds.

Volunteers are welcome to spend as little or as much time as they wish on the appointed days. No experience is necessary. All harvesters should wear field clothing and bring pruning shears and paper grocery bags if possible. Coffee and donuts will be provided. For more information call the Public Information Office at x3351. In case of inclement weather, call the Fermilab switchboard at x3000 to verify harvest plans.

An opportunity to make a difference

The Fermilab Equal Opportunity Office, in partnership with the Chicagoland Chamber of Commerce, is once again seeking volunteer speakers from the Fermilab community to help inspire young people through the Youth Motivation Program.

With just a few hours of your time, you can make a difference in the life of a young person who needs a strong role model for success. As a volunteer, YMP will send you into the classrooms of Chicago public schools where you will speak with students about their futures and the importance of education.

This program is just one way that the Fermilab and surrounding business communities have responded to the growing gap between the needs of the workplace and the skills of the workforce. As a volunteer, your encouragement can inspire students to work hard,

Wellness Committee holds seminar

Did you know that, according to the National Cancer Institute, one in 11 men will get prostate cancer? Wait a minute, that sounds like a lot of people! What is a prostate? How much do I know about prostates? Nothing. Do I need to know about prostates? Yes. How/where can I find out? Good question. Well, get your lunch to go on Tuesday, September 28. The Fermilab Wellness Committee will present a brown bag seminar on this topic. Dr. Joseph Nuzzarello, a urologist with Central DuPage and Elmhurst Hospitals, will be here from noon to 1 p.m. in Curia II. He will discuss prostate problems, diagnosing and treating prostate disorders and the importance of prostate disorders awareness. Friends, family and all Fermilab employees are welcome. Hope to see you there.—Audrey Hopper

stay in school and strive for the best. And in the process, you will be rewarded with the satisfaction of knowing that you have contributed to the future of your community.

Norman Gelfand (AD) has been volunteering in the program since it began seven

years ago. He said the YMP is a plus in the total learning environment for children. "It shows them someone cares about them," Norman said. "I have been to many schools, from the (Illinois Mathematics and) Science Academy to some of the worst schools in Chicago, and I often find the students

"I think the YMP is great. It gives a business person an opportunity to go into the classroom and reinforce the importance of education as it relates to the future goals of the students."—Nelson Sample, YMP volunteer

attentive. If you can reach one or two kids in a year, you've done something very useful. It is a good experience."

If you are interested in being a YMP volunteer, please contact Ruby Coiley, EOO, x8362, MS 117.

Movie schedule announced

The Fermilab International Film Society presents movies from all over the world. Movies are shown at 8 p.m. Fridays in Ramsey Auditorium. All foreign films have English subtitles. Admission is \$3 for adults, \$.50 for children 12 and under. Coffee and cookies will be served on the second floor mezzanine following each film.

September 24: *Show People* Satirical look at Hollywood starring Marian Davies and the Who's Who of 1928 MGM in cameo roles. Randolph Hearst co-produced. Live piano accompaniment. King Vidor, dir. U.S., 1928 (80 min.).

October 8: *Thousand Clowns* A wonderful comedy-drama about a man who eschews conformity at every juncture and lives his life marching to a drummer only he hears. Jason Robards stars. Fred Coe, dir. U.S., 1965. (117 min.).

FYS

For Your Safety

Avoiding slips and falls

Fall prevention check list

It may come as a surprise to you, but falls are the most common cause of office and household injuries. Yet almost all falls can be prevented by using common safety sense and learning how to recognize and correct typical fall hazards in the home and office environment.

- ✓ Look before you walk—make sure your pathway is clear.
- ✓ Close drawers and cabinets after every use.
- ✓ Avoid bending, twisting and leaning backwards while seated.
- ✓ Secure electrical cords and wires away from walkways.
- ✓ Always use an appropriate stepladder for overhead reaching.
- ✓ Clean up spills immediately.
- ✓ If you see anything on the floor—a pen, a paper clip, etc.—pick it up.
- ✓ Repair or replace loose flooring or carpeting.
- ✓ Make sure stairs and walk ways are well-lighted, especially at night.
- ✓ Shovel, sand and/or salt stairs and paths to clear ice and snow.
- ✓ Walk, don't run.

Summer basketball league ends

The 1993 summer basketball league ended on August 12 with new champions, The Colliders. This team, with a great number of new personnel and captained by Michael Ralls, got off to a rocky start, but ended the season on a high note with a solid team effort in the playoffs and championship game against the Dream Team, led by captain Ryan Hagler.

The Colliders ended the season with a 7 and 3 record. The Dream Team came in second place, accumulating an 8 and 2 record and earning the regular season best-record trophy. The league had the benefit of many summer employee players resulting in a high level of competitiveness among the teams. Additional teams in the league included Bad Company, Dread Red and the ambitious Nuthin' But Net.—*Michael Ralls*



The Colliders, l to r: Ray Fonseca, Matt Macpherson, Kevin Martin, Ron Ray and Michael Ralls. Not pictured: Jason Collins, Sean Edmondson, Jeff Munn and Richard Sanchez.

German class offered

German language classes will again be offered starting Tuesday, September 21.

A beginners class for those with little or no background will be held Tuesdays from 4 p.m. to 5:15 p.m. A class for those who speak some German will be held Tuesdays from 5:30 p.m. to 6:30 p.m. These two classes will continue to be taught by Angela Jostlein, 708-355-8279.

A more advanced class will be taught Wednesdays from 4:15 p.m. to 5 p.m. starting September 29 by Ulla Baker, 708-231-0339.

For more information, call Brenda Kirk at x3440. All classes meet in the conference room at 20 Neuqua.

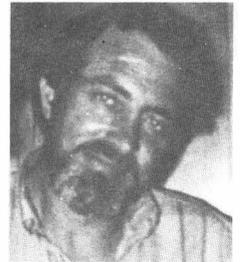
Harper's Index

Estimated number of cows it takes to supply the 22,000 footballs the NFL uses each season: 3,000.

Number of pigs: 0.

In memoriam

Larry Seaney (TS/ Machine Shop) died on Saturday, August 28 from injuries sustained in an automobile accident. Larry joined the Laboratory on March 20, 1981. He worked in the Machine Repair and Cut Shop Group, and was also a member of their safety committee.



Charles Matthews, Machine Shop superintendent, said that Larry was a very revered employee. "I depended on Larry for guidance especially with electrical problems and maintenance. As a member of our safety committee, he functioned very well. He was conscientious and brought issues to the table for discussion, and helped solved problems. He was very dedicated to his job. We are going to miss him. He was very valuable to us."

Larry was a resident of Hinckley, IL. He is survived by his wife, Ann, and children, Douglas, 21; Dawn, 18; Josh, 13 and step-children Rick, Lori, Leerae, Nikki, Scott, Pat and Ronnie.

Dear Editor,

Thank you for your time. You will notice that this letter is not signed. I think it is understandable that employees hesitate to attach their names to controversial comments since it could affect their working relationships. One result of this is that the Laboratory management does not get feedback that could be very valuable.

Some weeks ago you solicited ideas on new features people would like to see included in *Ferminews*. I think a column of unsigned employee comments could be useful. These of course would be subject to management discretion and editing prior to publication.

I would like to offer a sample of a comment from an employee. The August 20 lead article about DOE quality improvement initiative really got to me. The core values listed included "2. People are our most important resource" and also "DOE works as a team and advocates teamwork." I wonder how people can be contributors to a team effort when the Secretary of Energy makes a nationwide broadcast to employees and contractors (I assume that included the employees of Fermilab) and we find out about the broadcast after the fact. Does that mean that

the broadcast content is subject to management discretion and editing prior to publication? My point is that employees should have been informed about the broadcast in time to listen to it first hand. Again thank you for your time.

Dear Employee,

We agree that it would have been more informative if all employees had been able to view the Secretary's "town meeting," however, it was a satellite broadcast and Fermilab does not have the capability to receive these broadcasts. Consequently, we are not notified in advance that these broadcasts are scheduled.

The first point discussed in this letter deals with editorial policy, and because it has not been discussed recently in *Ferminews*, this letter gives us the opportunity to restate the policy. It is not the policy of the Publications Office to run anonymous letters in *Ferminews*. Although our office respects the fact that many people do not feel comfortable submitting a signed letter, we cannot print a letter that gives us no avenues for clarifying statements or facts. We can, however print the letter without a name and protect the source if so requested.

Although the Publications Office is very receptive to running an employee suggestion column, we do not agree with your suggestion that anonymous letters would give the Laboratory valuable feedback. An anonymous suggestion does not open avenues for communication because it does not give management or program participants an opportunity to explore the suggestion with the individual who has obviously given the idea a great deal of thought and may have a valuable contribution to make.

Your comment regarding the core values is understandable, especially if you feel you were left out of the communication loop. As we all learn more about Secretary O'Leary's Quality Initiative, we will have to make our own judgments. The core values recently adopted by DOE will not become an overnight reality. Currently we are all in the process of becoming aware of the Secretary's position and learning more about what the quality initiative means and how it can be applied in our own environments. It will take time to move these ideas from paper to reality.—Cindy Crego and Jean Kidd, editors.

We appreciate your letters and welcome all comments and responses.

New items from the Stockroom Ergonomic chair show held

1175-0615 Plug and cord set, 3 cond., U/L approved, electronics, test equip., Belden 17001A, 3ft., awg-16, SJT, black, 13 amp.

1212-0600 Coupling, stainless steel, hanger rod, Elfco 1/4 x 20.

1212-0605 Coupling, stainless steel, hanger rod, Elfco 3/8 x 16.

1307-0590 Manual, computer operation, *Unix in a Nutshell*, by Daniel Gilly P/N ISBN 1-56592-001-5.

1950-0550 Insect repellent, pump spray, non-aerosol, unscented, clothing and personal application, 4 oz. can.

Sue Hanson (LS) gets assistance from Jack Upton (Physics) in choosing a proper chair at the ergonomic chair show recently presented by the Physics Department. The show was held from August 23-27, 1993 on WH2SW and offered employees an opportunity to evaluate chairs and workstations that are ergonomically correct. Hans Jostlein (Physics) organized the show after attending an ergonomics training course here at the Lab. He said he wanted to show employees how an ergonomically correct chair and workstation can help reduce their risk of developing carpal tunnel and back problems. Jack and Dan Bark assisted and offered advice to employees on which chair was correct for them. Nearly 30 people attended the show each day.



ES&H: ensuring your safety

Fermilab's ES&H Industrial Hygiene Department has been working hard this year in an effort to protect employees from occupational health hazards.

From January to June, ES&H analyzed several areas for possible health hazards. Air samples were taken to evaluate employee exposure to various chemicals, bulk samples of materials were examined for possible asbestos and lead content and lead wipe samples of floors and table tops in work areas were also analyzed. Noise samples taken from 10 different areas were also examined by Industrial Hygiene personnel for possible hazard.

According to **Maureen Huey** (ES&H) the department took two types of air samples during their analysis. Personal air samples were taken in employee's "breathing zones" and reflect the concentration that the employee actually breathes, while area samples were taken in a particular area and reflect potential employee exposure. There was a total of 74 air samples taken. Of those, only 7%, or five measured concentrations, were above Fermilab standards. Two area and one personal overexposures to organic solvents were detected. Additional ventilation reduced the exposure. There were also two measured overexposures to welding fumes which were successfully reduced by additional ventilation.

In the bulk sample analysis 53 samples of materials were taken for content identification. Most were suspect for containing asbestos. The results showed that 21% were positive for asbestos. Most of this material has been removed. A warning label was placed on material that was not removed and its condition will periodically be monitored to assure there is minimal fiber release.

A total of eight lead wipe samples of floors and table tops following a lead assembly project were taken. Only one sample was above the Fermilab standard. Additional cleaning reduced surface-lead concentrations below the standard.

ES&H personnel also identified two areas where noise levels were over 85 dBA. To ensure employee safety, those areas were marked with warning signs and labels.

Although small occupational health hazards were detected, there were no occupational illnesses reported in the first six months of 1993.

Classified ads Vehicles

1984 Monte Carlo, 8 cyl., exc. tires, brakes, runs great, asking \$1,800. Call Jason at 708-393-1876.

1983 Mazda RX-7. 158K miles, removable roof, AC, AM/FM cassette, cruise, new brakes & exhaust (both lifetime warranty), no rust, excellent condition, asking \$2,800. Call x2394.

1950 Chevy 1/2 ton pickup. Restored to original condition, \$8,000 o.b.o. Call Jim at x2205 or 708-584-6698 after 5 p.m.

Miscellaneous

Pioneer **radio cassette** K series. Search/scan modes, 18 channel set capability, auto reverse, \$100; Pioneer **car stereo speakers**, TRX8SL, \$150; **lawn mower**, \$50. Call Mike at x3382.

5 black vinyl **cushioned bar stools**, \$60; **solid oak baby's high chair** w/pad, \$25. All in like-new condition. Call Ron at x4070.

Sears **Kenmore laundry center** stacked washer & dryer, \$400 o.b.o. Call x2312 or 708-820-6876 after 5 p.m.

Super **single waterbed** w/6 drawer pedestal, headboard, heater, mattress & 3 sets of sheets, \$200; **roll-away double bed** w/set of sheets, \$25. Call x3015 or 708-879-9356 after 5 p.m.

Homemade **wood desk**, 60.5 in. long x 30.5 in. wide x 30.5 in. high, w/chair, \$100; **queen-size waterbed**, padded, heater, \$150. Call Ken at x3825 or 708-859-3188.

Machine Shop continued

the Machine Shop to reduce the number of solvent stations because they will no longer have the need for solvent clean up. Charles said he hopes to get down to only one solvent station in the Machine Repair Department.

"We feel pretty confident that it is going to be an environmentally-great product to

Roll-away bed frame, \$10; **snare drum**, \$30; **5" T.V.**, \$10; **nightstand**, \$5; **dresser**, \$10; **freezer**, \$35; **bowling balls**; **Nintendo**, complete system with power pad, several games, good price. Call for details; **Laptop** 80386sx/20 mhz, 4MB RAM, 40MB hard drive, stacked to 80, software pre-loaded, many other features, good condition. Call for details, 708-557-2523.

Three **adjoining lots** in Oak Ridge Cemetery in Sandwich, Il., \$400 ea. (lots are currently selling for \$475 ea. in Oak Ridge) For information call 708-393-3357.

Antique 54" **round oak table**, \$375. Call x4136.

Real Estate

Looking for clean, non-smoker w/no pets to **share 3 bedroom townhouse** in Geneva. Female preferred but will consider male. Many nice features for less than \$400/month. Call Elizabeth at x8599 or Kate at x8757.

Ranch-style home in Warrenville for rent. 3 bedroom, 2 bath, full basement, close to schools. Available Oct. 15, \$1,000/month. Lease negotiable, no pets, no smokers. Call Geri Barnes at 708-393-1228.

Condo for rent. 3 bedroom deluxe in Wheaton, 2 full bath, 1 car garage, balcony with beautiful view. Convenient and quiet location. All appliances, \$960/month + security deposit. Call Randy at 708-393-9843.

Pets

Adopt me! **Male Cocker Spaniel**, 10 months old, tan, house-broken, super playful and friendly, good with kids. Call Gina at x2685.