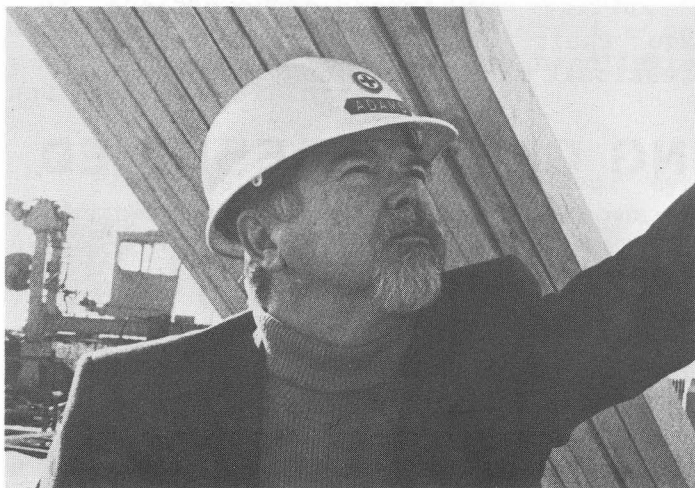
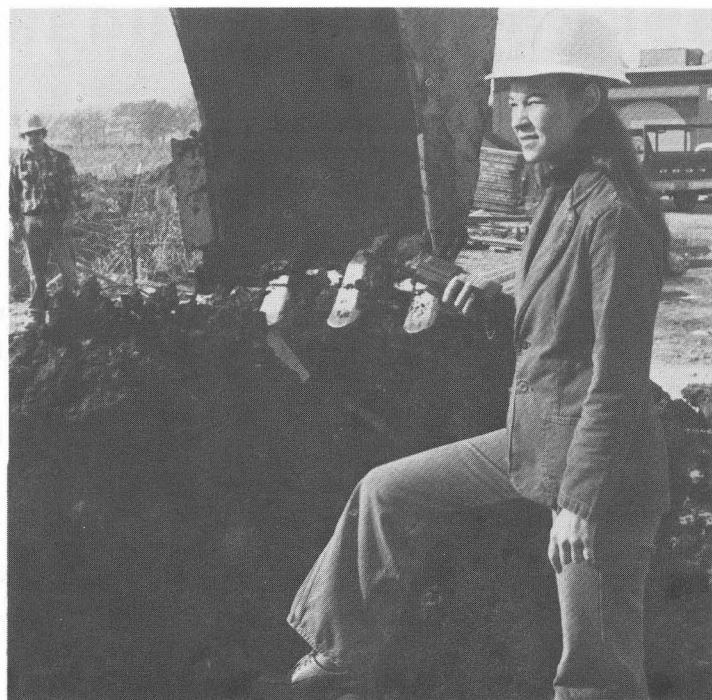


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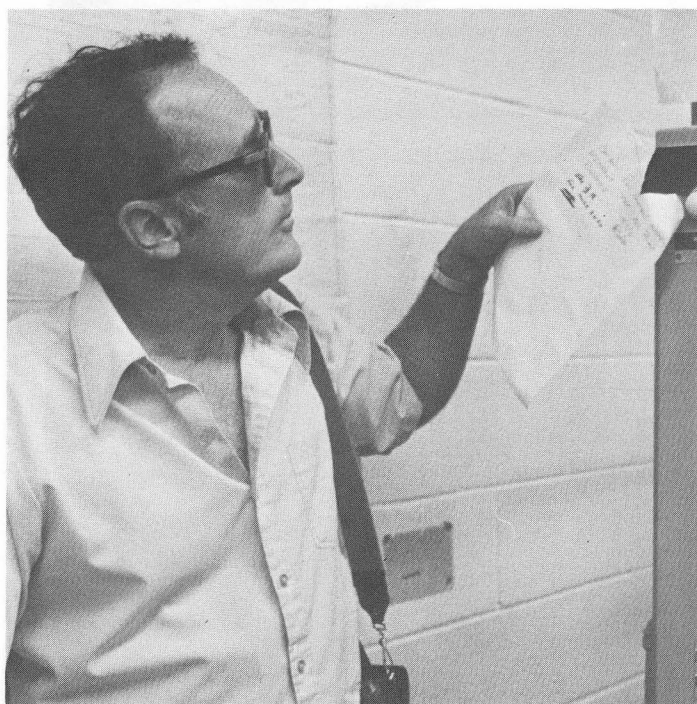
FERMI NATIONAL ACCELERATOR LABORATORY
JANUARY 21, 1982



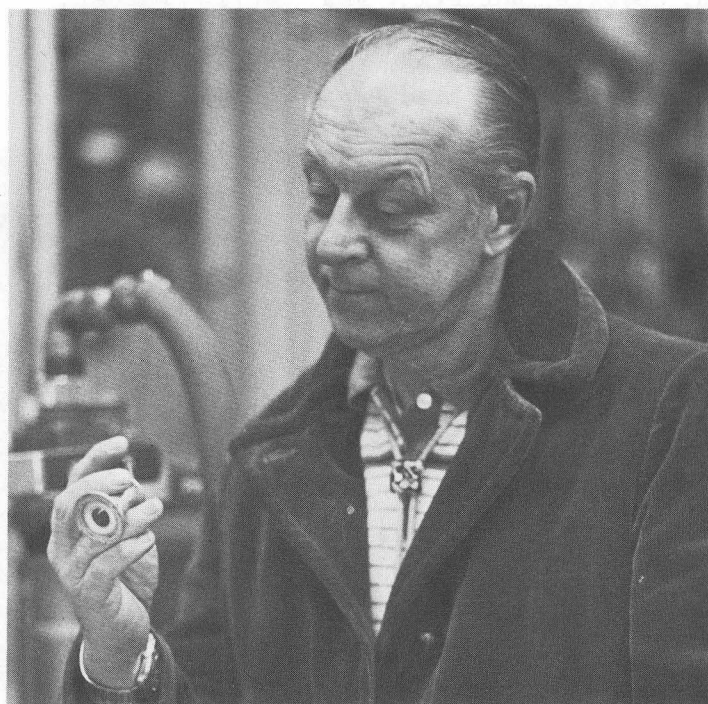
Bob Adams joins Business Services.



Jan Burdick moves to Technical Services.



Charlie Bonham joins Accelerator Division.



Bob Scherr is now in Research Division.

FERMILAB REORGANIZES SAFETY SERVICES

Reorganization of Fermilab's safety program has been announced by Acting Deputy Director Phil Livdahl. In addition to the Safety Division, each of the four largest administrative units will now have its own full-time professional senior safety officer. New appointees are Bob Adams, Charlie Bonham, Jan Burdick, and Bob Scherr.

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(cont'd. from pg. 1)

All four new senior divisional safety officers formerly worked in the Safety Division. On some matters, they will still report to the Head of the Safety Division and to the Laboratory Director.

"Whenever a senior safety officer feels the Division Head has made an incorrect judgment concerning a serious safety matter, it is his duty to bring the

matter to the attention of the Safety Section Head or the Laboratory Director for further consideration," Livdahl said. "Charlie Bonham, Bob Scherr, Bob Adams, and Jan Burdick enjoy the strong support of the Director's Office in their vitally important new jobs."

"This change is expected to strengthen the ability of these organizations to manage their own safety programs in a professional manner," Livdahl said.

ARCHITECTURAL ENGINEERING GETS REDESIGNED

Major construction of Tevatron I and Tevatron II new facilities will begin in the spring of this year. In order to clearly focus on these projects, two new groups have been formed.

The Business Division's Site Services has a new Architectural Engineering group that will handle all construction and design work not associated with the Tevatron. They are (front row, left to right) Sue Andersen, Jim Moncrieff, Gerry Reid, Gerrie Butlett, and Marvin Warner, head; (second row, left to right) Ron Ford, John Kidd, Bill Johnson, Chuck Huang, Graciela Finstrom, and David Orland. →



Wayne Nestander (left) heads the newly formed Tevatron Design Group that will focus on design and construction of the new facilities, scheduled to begin in the spring, for Tevatron I and II. The group is composed of engineers and draftspersons from Neutrino and Technical Services. They are (left to right) W. Nestander, V. Kuchler, J. Hackemer, L. Even, L. Finks, M. Magnuson, W. Mahler, J. Webber, J. Gehard, M. Grimson, H. Clover, E. Valdes, E. Major, and B. Wetmore. Missing from the photo is G. Pajic.

WINTER DRIVING TIPS REDUCE SKIDS ON ICE

The Safety Section would like to remind Fermilab employees of a few tips to make winter driving safer and more enjoyable:

-The best way to be sure you can see where you are going is to clear ice and snow from windows, tail-lights, headlights, and entire car before you start.

-The best way to protect your eyes from the combined glare of snow and sunshine is to wear a good pair of sunglasses.

-The best way to get moving when you are stuck in snow is to turn your wheels side-to-side a few times to clear the snow away, then ease forward as gently as possible with your wheels kept straight. Don't spin wheels, for that will only make the wheels dig deeper.

-The best way to pull out of a skid, whether front or rear wheel drive, is to ease off the gas. **Don't** apply brakes and keep the wheels straight as you go down the road.

-The best way to keep moving on a slippery winter surface is to avoid abrupt changes in speed or direction, anticipate lane changes, stops, and turns, and make them gradual and steady.

-The best way to stop on ice is by depressing and releasing the brake pedal a few times. Due to the fact that disc brakes release slower than the drum brakes on older cars, the pumping action should be slower.

-The best way to see at night is to wait a few minutes and let your eyes adjust to the darkness before driving. During a snowfall, switch lights to low beam to reduce the glare of the reflected light.

-Above all, allow plenty of time for trips, keep vehicles properly maintained, and display the proper courtesy to your fellow drivers.



Winter drivers, without plow attachments, can feel safer reading tips at left.

F.I.C.A. ALTERS PAYCHECK

Paychecks will be affected by several changes which took effect January 1. Social Security taxes in 1982 have increased to 6.7% on the first \$32,400 an individual earns; the Laboratory will match the deduction for each employee. Also, sick leave is no longer exempt from F.I.C.A.

On the brighter side, insurance rates have decreased. Dependent Life A has been lowered from \$1 to 92 cents per month. Dependent Life B is now \$1.83 instead of \$2 per month.

ROMEROS TO APPEAR FEB. 13

"The Royal Family of the Guitar," the Romeros, will appear at Ramsey Auditorium on Saturday, February 13, at 8 p. m. Celedonio Romero and his sons, Celin, Pepe, and Angel, will each perform solos as well as quartets. As a quartet, these Spanish artists have performed with almost every major U. S. symphony orchestra and recently completed their sixth tour of Europe. Works by composers Manuel de Falla, Fernando Sor, J. S. Bach, Heitor Villa-Lobos, and "Papa" Romero will be featured.

Admission is \$6; all seats are reserved. Call 840-3353 for information and reservations. Phone reservations not paid for within five working days will be released for sale because of the great demand.

SPEAKERS TO DELIVER ARMS CONTROL SEMINAR

"The Probability and Consequences of Limited Nuclear War," the fourth lecture in an Arms Control and International Security Seminar Series, can be heard January 29 at 8 p.m. in Ramsey Auditorium.

The talk, dealing with the physical and medical consequences of limited nuclear war, will be delivered by two speakers. Dr. von Hippel, Princeton University, has written widely on technical topics of public concern (see **Physics Today**, July 1981). Dr. Richard Gardiner, a radiologist at Rush Medical Center in Chicago, is Chairman of the Chicago Chapter of Physicians for Social Responsibility.

In conjunction with this month's lecture, a graphic film about nuclear attack on Britain, **The War Game**, plus three short films, **Hiroshima**, **Nagasaki**, and **Fable Safe**, will be shown January 30 in Ramsey Auditorium at 8 p.m.

MASURSKY HERE TOMORROW

Dr. Harold Masursky will open a new season of Fermilab lectures January 22 at 8 p.m. in Ramsey Auditorium. His lecture, "Exploration of Venus, Jupiter, and Saturn," will include pictures from the latest deep space probes.

Masursky is one of the nation's leading space experts, a senior scientist with the Branch of Astrogeologic Studies, U.S. Geological Survey in Flagstaff, Arizona. He was involved in the site selection and mission operations for Lunar Orbiters I-IV and Apollo flights 8, 10, 15, 16, and 17. Masursky is a member of the NASA Advisory Council's Space Science Advisory Committee and the Solar System Exploration Committee. As a member of the Voyager Imaging Science Team, Masursky served as one of the principle scientists in the Venus Orbiting Imaging Radar Science Working Group.

Due to loss of the Illinois Humanities Council grant, part of federal funding cutbacks, admission will be \$2 and \$1 for senior citizens. Call 840-3353 for reservations. Phone reservations are held for five days before being released for sale to the general public.

"SOLAR CONCENTRATOR" TALK

Roland Winston, University of Chicago, will present "Evolution of Stationary Solar Concentrators" at the Physics Colloquium January 27 in Ramsey Auditorium at 4 p.m.

Winston will trace the development of stationary solar concentrators, once considered to be unfeasible, with emphasis on recent advances in the efficient generation of high fluid temperatures from fixed collectors.

CONGRATULATIONS TO...

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...Dr. and Mrs. Dennis Judd (Physics) for receiving the Aurora Mayor's Award for Excellence in Property Improvements. They were nominated for careful restoration of their house at 412 N. Lake Street which exhibits Prairie and English Tudor style influences.

...Trophy winners at the Fermilab Racquetball Tournament. Open division winners are Cary Kendziora (Proton), first place; Jeff Gannon (Accelerator), second place; and Rich Parry (Accelerator), third place. Intermediate division winners include Louise Krafczyk (Research Services), first place; Ralph Pasquinelli (Accelerator), second place; and Rodolfo Gonzalez (Accelerator), third place. Novice division winners are Craig Moore (Accelerator), first place; Rich Stanek (Proton), second place; and Linda Even (Architectural Services), third place.



VIDEO DISPLAY TERMINALS *

HOW SAFE ARE THEY?

Much is being written about potential health effects associated with long term exposure to video display terminals (VDT). Basically these advanced technology communicating tools are television sets coupled to a typewriter keyboard. The major difference between a TV and a VDT is that only printed material is displayed on the VDT screen. The questions about safety possibly arose from concern about job security in organizations where VDT's are used to increase productivity.

Since their introduction in the early 1970s, VDTs have been the alleged culprit in many complaints of adverse health effects including birth defects, visual fatigue, headache, sleepiness, nausea, cataracts, nervousness, and irritability. The exposure to electromagnetic radiation produced from VDTs under some operating conditions has often been suggested as the causative agent. VDTs can generate low energy x-rays in the cathode ray tube (CRT). Low level ultraviolet (UV), visible, and infrared (IR) radiation can be emitted from the screen face depending on the phosphor used. Radiofrequency radiation can also be produced from the horizontal deflection system and its associated high voltage circuit.

Many studies have been performed to determine if harmful levels of radiation are emitted from these units. The results of several extensive investigations indicated that VDTs do not produce hazardous levels of radiation:

- a. "...it can be concluded that the VDT does not represent a radiation hazard to the employees working at or near a terminal (1)."
- b. "Thus, video display terminals should not pose a radiation risk to those who operate them (2)."
- c. "...all emission levels were several orders of magnitude below the recommended safety limits (3)."

Research is continuing on the identification of health parameters associated with the use of VDTs and a growing consensus suggests that the causes of complaints are due to factors in the work place other than electromagnetic radiation.

Based upon recent evaluations of work areas, the National Institute of Occupational Safety and Health recommends the following factors be considered:

1. VDT work stations and devices should be adjustable so that each operator can control:
 - a. Keyboard height.
 - b. Screen height.
 - c. Screen brightness and contrast.
 - d. Viewing distance (should be between 18-28 inches).
 - e. Work station illumination levels.
 - f. Chair adjustments (seat height, backrest height, tension, and armrests).
2. The VDT screen should be positioned so that the viewing angle is 10°-20° below the horizontal plane at eye level.
3. Illumination levels should be within 500-700 lux, with individual work station lighting provided for jobs requiring higher levels due to visual demands.
4. Screen glare should be controlled.
5. There should be work-rest breaks of at least 15 minutes every 2 hours for VDT operators under moderate visual demands.
6. Visual testing of VDT operators should be performed periodically.

References

1. NIOSH Research Report, "Potential Health Hazards of Video Display Terminals," NIOSH Publication No. 81-129.
2. "An Evaluation of Radiation Emission from Video Display Terminals," HHS Publication FDA 8-8153.
3. M.L. Wolbarsht et al., "Electromagnetic Emissions for Visual Display Units: A Nonhazard." Society of Photo-optical Instrumentation Engineers (SPIE), Vol. 229 Ocular Effects of Nonionizing Radiation, p. 187 (1980).

*Originally issued by Brookhaven National Laboratory as a Safety and Environmental Protection Division Information Bulletin, September 1981.

