



HOTLINE

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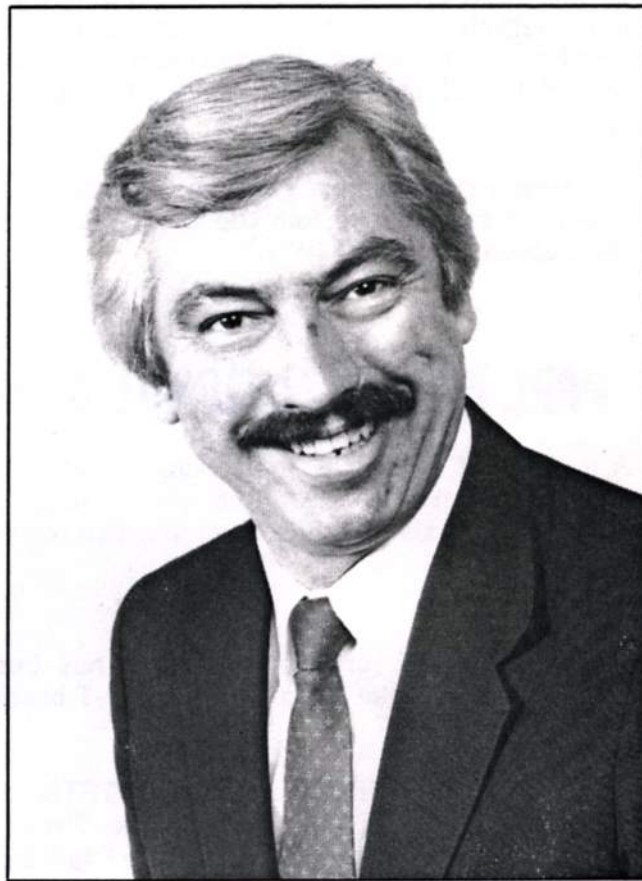
September 19, 1986

DON GROVE APPOINTED DEPUTY DIRECTOR FOR TECHNICAL OPERATIONS

DALE MEADE TO HEAD TFTR PROJECT



Dr. Donald Grove



Dr. Dale Meade

Don Grove has been named Deputy Director for Technical Operations to succeed J.R. Thompson, who has resigned to become Director of NASA's Marshall Space Flight Center. Dale Meade will become TFTR Project Manager. Both appointments were announced by Director Harold Furth on September 11, 1986, and will become effective October 1. Dr. Furth noted, "Don and Dale have long and distinguished records of accomplishment. We wish them well in their demanding new jobs."

Dr. Grove will be responsible for the operation of all of the Laboratory's experimental devices, which include the Tokamak Fusion Test Reactor (TFTR), the Princeton Beta

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Experiment (PBX), the Princeton Large Torus (PLT), and the S-1 Spheromak. He will also oversee engineering support activities and design studies for the Compact Ignition Tokamak (CIT) project. As head of the TFTR Project, Dr. Meade will lead a team of 200 scientists and supporting personnel, and administer an annual operating budget of approximately \$70 million.

Dr. Grove has served as TFTR Project Manager for the past four years. Last February he was awarded the United States Department of Energy's Distinguished Associate Award in recognition of his leadership in the design, construction, and operation of TFTR. In 1976, he received the Distinguished Associate Award for his contributions as Project Manager of PLT, which was the principal US fusion device at that time.

Dr. Grove received his Ph.D. in Physics from Carnegie-Mellon University, and came to the Laboratory "on loan" from the Westinghouse Electric Corporation in 1954. He was one of four scientist-engineers who worked with Lyman Spitzer on the first studies on the practical aspects of fusion power. He also planned, constructed, and put into operation the first ultra-high vacuum laboratory for large fusion systems.

Dr. Meade was appointed Deputy Manager of TFTR and Head of the TFTR Research Operations Division in November, 1982. He has also been Head of the Experimental Division of the Laboratory's Research Department since February 1980. During the early 1970's, he did research using the FM-1 device and was named the head of the project in 1973. In 1974, he became interested in the effects of impurities on fusion reactors, played a leading role in the design of the Poloidal Divertor Experiment (PDX), and was then named head of PDX operations.

Dr. Meade received his Ph.D. in Physics from the University of Wisconsin. He joined PPPL in 1966, but returned to join the faculty of the University of Wisconsin in 1967. He returned to the Laboratory in 1972.

PPPL ORGANIZATIONAL CHANGES EFFECTIVE AUGUST 25

A number of organizational changes have been made to formally recognize the CIT project and the central role of the research program within the Laboratory. Several recent promotions at the division level are also reflected in the Laboratory's new organization chart.

TFTR

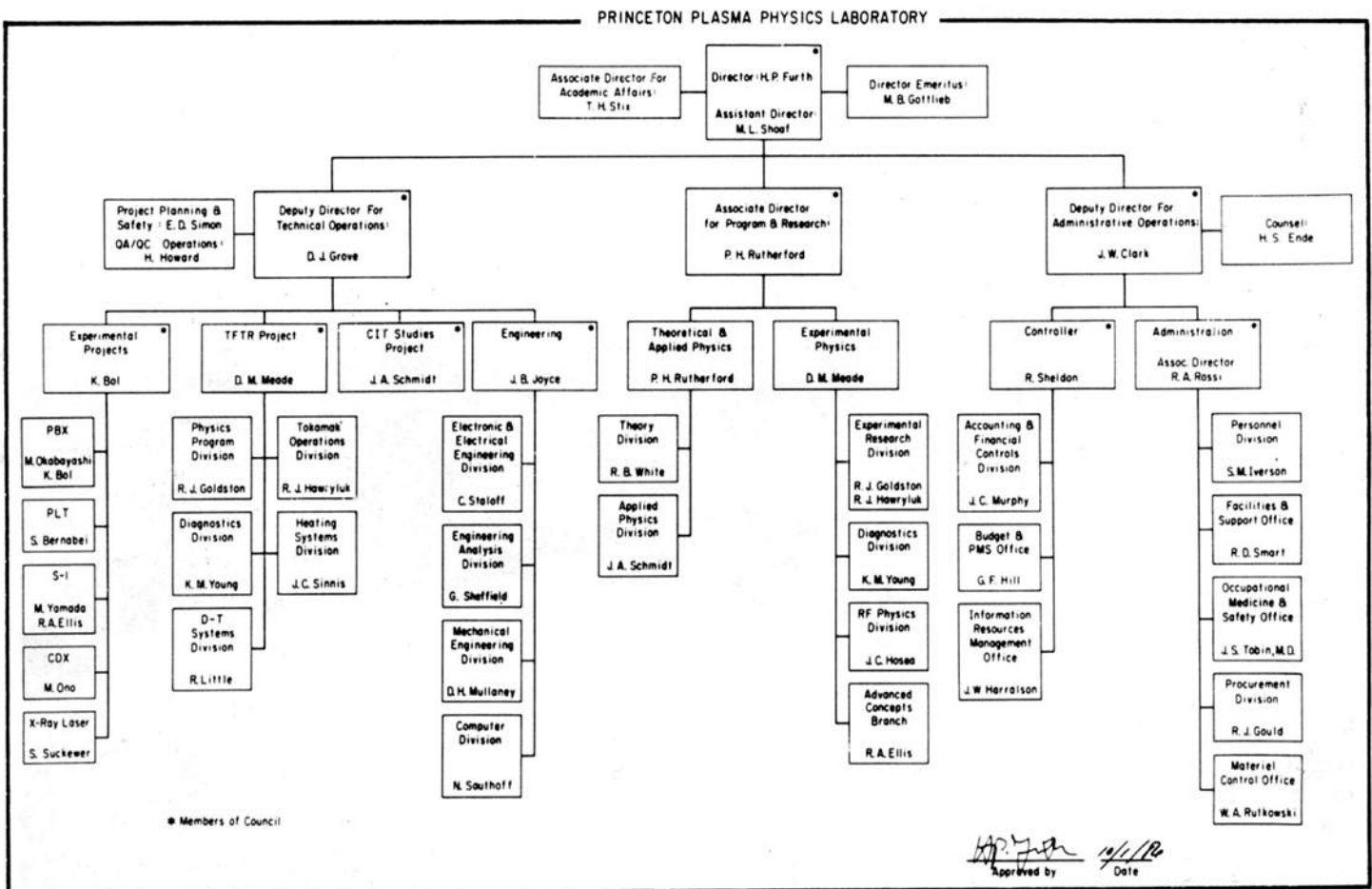
A revised TFTR project structure has been approved that should strengthen efforts to achieve D-D breakeven in 1987 and D-T breakeven in 1989. Key elements are:

- Jim Sinnis will become Head, TFTR Heating Systems Division. This new division will combine under his direction the three TFTR heating systems -- Neutral Beams, ICRF (transferred from PLT), and the Ohmic Power Supplies.
- Rich Hawryluk will become Head, Tokamak Operations Division. His current branch, Physics Operations, will be combined with the Core Engineering and Systems Engineering Branches of the former Facilities Operations Division. Dave O'Neill will be Deputy Division Head.
- Rob Goldston will become Head, Physics Program Division. He will continue to manage the TFTR Physics Task Forces and will now manage the Data Analysis, ICRF Physics, and TFTR Modeling Branches. Kevin McGuire will be Deputy Division Head.

- Ken Young will continue to head the Diagnostics Division; no changes are planned in the current branch structure. Larry Johnson will continue as Deputy Division Head.
- Roy Little will become Head, D-T Systems Division, where he will manage all preparations for tritium operation on TFTR as well as special D-T-phase development projects, including remote manipulators, a D-T pellet injector, and shielding. Dan Kungl will be Deputy Division Head. Joe File becomes Associate Division Head for Special Projects for the Mechanical Engineering Division.

CIT

The CIT design effort has now advanced to a point where it merits explicit recognition in the PPPL organization chart. DOE approval of this project, to be sited at Princeton, is expected. In view of the importance of the proposed CIT project to the future of the Laboratory, John Schmidt has been named a member of the PPPL Council.



Research and Program

Proposed changes in the research and program organization are expected to strengthen the Laboratory's program-planning function and to simplify the home-organization responsibilities for research personnel.

- Paul Rutherford, as Associate Director for Program and Research, chairs the Laboratory's Program Committee, is responsible for the allocation of budgets to directly funded projects, and is the Laboratory's spokesman on programmatic issues. He also

oversees the recruitment and professional development of all members of the Research Staff. He also has line responsibility for the Theory Division, headed by Roscoe White with Liu Chen as Deputy, and the Applied Physics Division, headed by John Schmidt.

- Dale Meade will act as Head of the Experimental Physics program, with Bob Ellis as his Deputy; Kees Bol will serve as Associate Head, representing Experimental Projects. The primary function of this organizational unit is the allocation of research staff to the Laboratory's projects.
- Rob Goldston and Rich Hawryluk will serve as Co-Heads of the Experimental Research Division.
- Ken Young will head the Diagnostics Division.
- Joel Hosea will head the RF Physics Division.
- Bob Ellis will continue as Head of the Advanced Concepts Branch.

Administrative Operations (Controller)

The new organization chart also reflects actions taken to integrate the performance measurement systems (PMS) with the budget systems of the Laboratory, the PMS staff having been transferred to the Controller's office earlier this year. The Budget and PMS Office will be headed by George Hill. Ron Strykowski will continue to direct the PMS activities and will also serve as Deputy Head of the office.

Mitch's Patches

Webster's dictionary tells us that a patch is used to cover a hole or weak spot. But patches have become a strong point with Mitch Dorum of Plant Maintenance and Operation. His collection of patches gathered from every municipal police department in the state is being loaned to Hightstown, and is on display in the Hightstown Borough Hall.

Although there are other collections of police patches, Mitch's perserverance has made his grouping the only one known to be exclusively focused on New Jersey's 547 known municipalities.

Mitch began assembling the collection last year to commemorate the 150th anniversary of the Hightstown Fire Department. "I have a lot of



Mitch Dorum of Plant Maintenance and Operations proudly poses with a portion of his patch collection.

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pride in the fire department," Mitch explained. "I wanted to do something special for them, so I decided to present them with a patch collection." Since Mitch was a member of the Hightstown fire department, that patch started the collection. He then sent letters to a variety of state fire and police departments, asking each to donate a patch to the effort.

With only a 20% response rate to his letter campaign, Mitch began personally visiting fire and police departments to request the patches. His quest took him all over the state, from Sussex in the north to Cape May in the south. Within four months, he'd collected over 150 patches.

When Mitch decided to give the Hightstown Fire Department a collection composed solely of fire patches, he was left with 60 to 70 police department patches. Instead of simply selling or discarding them, he decided to attempt to collect a patch from every police department in the state.

Again Mitch wrote letters and visited police stations to obtain patches. Emblems representing one-man departments, which consist of a full-time chief and part-time officers, were tough to get. So were the patches for departments that no longer exist. Many of these departments have been taken over by the state police, making the job of acquiring their patches much more difficult. So Mitch supplemented his burgeoning collection by buying or trading for hard-to-get patches at police patch shows.

Gathering the patches required major personal investments of time and money. So why amass such a collection? "It was a drive I had," Mitch explained. "When I do something, I try to give it 100% effort. Once I started, I wanted to collect all of New Jersey. When I was still missing a lot of patches, getting them was fairly easy. But when I got down to the last dozen or so, that was the real nitty gritty. My wife says I 'patch' her to death. It got tough to stick with it, but I'm glad I did!"

Mitch discovered how hard the collecting bug had bitten him after he completed his New Jersey police patch collection. He's now after all 52 of the badges worn by police in the United Kingdom, police patches from every continent in the world, and police hats and uniforms!

DEPARTMENT OF PUBLIC SAFETY Emergency Services Unit

Extension 3333 is the number to call to report a medical emergency. This extension is answered 24 hours a day by the Communications Officer located at the C-Site Security Desk. The call is also simultaneously monitored by the Emergency Services Unit (ESU), the Occupational Medicine and Safety Office, and the Project and Operational Safety Office.

The Communications Officer answering your call is trained to obtain vital information about the emergency, such as the nature of the problem, the exact location of the incident,

and the name of the caller. The officer will probably ask you to hold the line while the ESU is dispatched. DO NOT hang up the phone!

After dispatching the ESU, the officer will ask the caller for the telephone number at the emergency site, the name of the injured or ill person, and any other information which may aid the response to the emergency. Let the Communications Officer hang up FIRST: that will be his indication that he has all the information required to handle this emergency.

If possible, and without leaving the victim unattended, the caller should get someone to meet the responding ESU members at the closest entrance to the area to help direct them to the actual emergency site.

The Department of Public Safety appreciates your cooperation in aiding the timely response to all medical emergencies at PPL.

TRANSITIONS

The HOTLINE offers its congratulations to the following employees, who recently became proud parents:

Walter Stark of the Computer Division and his wife, Barbara, whose son, Joshua, was born August 8;

Mary Jane German of Accounting and her husband, Paul, whose son, Brenton Thomas, was born September 3.



Roger A. Mayes (left), Director of Operations and Environmental Safety Division of the Department of Energy's Chicago Operations Office presented PPL Director Harold P. Furth with the DOE Award of Excellence September 5. The award recognizes the laboratory's continued progress in improving its safety record. PPL surpassed one million man-hours worked without a lost-time accident last month.

Al Hoagland

If you're waved through the C-Site guard booth with an semi-military salute after your ID check, you've probably already met Public Safety Department Officer Al Hoagland.

Al was born in Trenton and raised in Philadelphia. He spent 22 years in the Air Force, retiring with the rank of Master Sergeant. He and his wife have four children ranging in ages from two to 20.

Al joined the Princeton University Security staff in August 1984. When the Security Department merged with the Emergency Services Unit to become the Department of Public Safety, he became an

Emergency Safety Officer (ESO) at the Forrestal Campus.

ESO's function as security officers at all times during their shift. If an emergency occurs, however, they respond as either firefighters or emergency medical technicians as needed. The position gives Al the opportunity to use the skills he acquired during 18 years of firefighting in the Air Force.

Al, who describes himself as "people-oriented," has found his daily contact with lab employees makes his job more enjoyable. "When you're dealing with people, you sometimes have to be very flexible," he says. "On the 4 to 12 shift, things are usually more quiet after most of the em-

ployees are gone. Most of the time then is spent checking buildings. But when you're on the day shift and you add people, the people factor can make a day very interesting."

Al said things were initially a little confusing at the C-Site guard booth when mandatory checking of ID badges began this summer. Al recalled making "meaningful contact" with some staff members, explaining that the checks were not designed to delay or harass employees. "It was a relatively new procedure," he said, "and when you're dealing with that human element, you've got to try to ease people into that new situation." Now, he reports, drivers approach the booth with a grin, often waving their badges at the officers. "I'd say the operation runs smoothly about 98 percent of the time," Al maintains.

Fireworks

Charlie Neumeyer, Dave Olsen, and Pete Haney really get a bang out of their second jobs. The trio are part of a company that plans and executes fireworks shows throughout the New York and New Jersey area.

The company is owned and operated by Joe Sredniawski, a Grumman employee now working at the company's Bethpage plant. While he worked in the local Grumman office, Joe met Charlie, Dave, and Pete. Joe discussed his sideline with them. Although they all possess "a healthy fear of power and energy," according to Charlie, all three expressed interest in becoming members of one of Joe's fireworks crews.

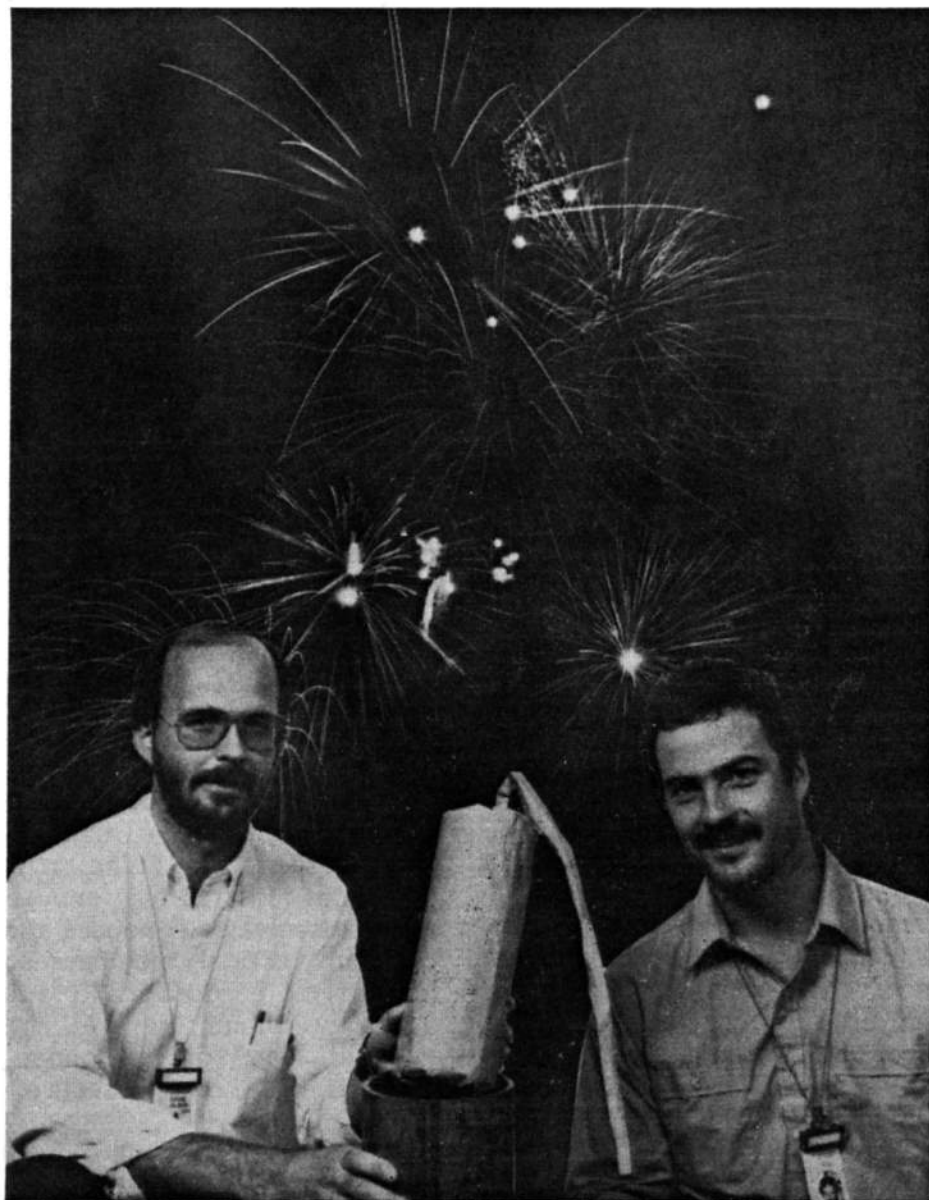
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Once the three were hired, they went to Joe's home for training. All Joe's employees are required to watch a video about fireworks, followed by a hands-on dry run of packing and firing the fireworks shells. Each worker then attends two to three shows as an observer before being allowed to participate on a show crew.

Joe translates a customer's requests into reality by planning the shows, designing the firework sequence, and packing the necessary shells into a magazine. A crew of six to nine workers transports the magazine to the show site, loads the three- to eight-inch diameter shells into mortar tubes, and fires the shells in the preset order.

For safety's sake, no one crew member is permitted to both load and light the fireworks. Each team employs loaders, who take the shells out of the magazine and insert them into the mortar, and lighters, who light the fuses with a flare. All lighters and loaders approach the mortar from an angle to minimize the possibility of being struck by an ascending shell.

Safety concerns abound when dealing with fireworks. There is, for example, a distinct difference between U.S. made and Japanese made fireworks. U.S. made models have fuses which extend for about two inches from the shell. When lit, the fuse burns for two to three seconds -- allowing plenty of time to clear the firing area. But Japanese fireworks use fastburning fuses, leaving little escape time once ignited.



Dave Olsen (left) and Pete Haney

Each shell is propelled skyward by a lifting charge packed within it. Malfunctioning lifting charges (a rare occurrence) can be a real danger. Dave recalled a shell that exploded while it was only one foot above the mortar tube. Crew members were shaken, but no one was hurt.

Coordination is vital if the crew itself is to avoid accidents. The shells are loaded in straight runs, mixing shells that create the patterned lights with those that are sim-

ply noise. When the weather is still, the smoke and haze the explosions create hovers at ground level. It makes it difficult for the loader to find the throat of the tube. There's also the stench of gunpowder. Crew members must constantly shout out what they're doing, ensuring that everyone is aware of what's going on all the time.

Even preparing a ground display, which is created by stapling smaller fireworks onto wood and wire frames, isn't

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without risk. Occasionally a misplaced staple will set off a string of firecrackers during assembly.

Although the displays are fired directly over their heads, Charlie, Dave, and Pete rarely get to see the fruits of their labors. There is very little opportunity for crew members to look up during a show. The exception is the finale, which is rigged for continuous firing by itself.

The danger of working with unpredictable fireworks adds a thrilling aspect to this avocation, and keeps all three men coming back. But despite precautions, the thrill can sometimes turn to chill. It did when Pete worked as a lighter in a show done for McCarriston High School. Unaware that a second shell was already loaded in a mortar, Pete bent over the tube as a shell exploded from it. The shell knocked him over, burning his face and embedding cinders in his skin.

The most dangerous situation Charlie ever encountered during a show came during the Feast of Lights in Trenton. Six rockets were set into aluminum mortars mounted on a wooden rack. One malfunctioned, blowing the tube apart. The explosion tipped the rack over, setting off the other shells. No one was hurt in the incident, and the show continued.

Such accidents seldom occur, and can't overshadow the enjoyment all three men get from indulging their childhood fascination with fireworks. So despite the danger, the trio intend to keep lighting up the night skies with their explosive hobby.

OSHA Reminders

The following safety reminders are drawn from a list of common Occupational Safety and Health Administration (OSHA) violations:

- Guardrails and toeboards must be installed on all open sides and ends of platforms more than 10 feet above the ground or floor. Scaffolds four to 10 feet high, with a minimum horizontal dimension of less than 45 inches in either direction, must have standard guardrails installed on all open sides and ends of the platform.
- Vertical portions of a scaffold must be properly secured laterally by use of cross braces, diagonal braces, or both. The cross braces must be long enough to automatically square and align vertical members so that the erected scaffold is always plumb, square, and rigid. All brace connections must be made secure.
- The minimum dimension of the scaffold base when ready for rolling must be at least one-half of the height of the scaffold. Outriggers, if used, shall be installed on both sides of the staging.

Space Heaters

Space heaters can certainly turn drafty areas toasty warm. But to be sure it's the air, and not you, that gets toasted, keep the following space heater guidelines in mind:

- Put at least 36 inches of empty space between your portable heater and every-

thing else -- including walls.

- NEVER refuel a liquid fuel heater while the heater is hot. The residual warmth in the heater could cause a flash fire during refueling.
- Use only the fuel recommended by the manufacturer; saving pennies on substitutes or lower grade fuels could cause a costly fire. And NEVER use gasoline as a heating fuel!
- Check electric heaters frequently for frayed or cracked power cords. If you find damage, don't take chances; disconnect the heater and don't use it until the cord has been replaced.
- Never allow children to play alone near a space heater. Make sure an adult is present to prevent painful burns.

Remember that space heaters for use at PPL can only be purchased with the approval of Plant Engineering.

The PPL HOTLINE is issued by the Princeton University Plasma Physics Laboratory, a research facility supported by the United States Department of Energy. Correspondence should be directed to PPL Information Services, Module 2, C-Site, James Forrestal Campus, ext. 2754.
