

Occupational Medicine Asks "How Am I Doing?"

by J.S. Tobin, M.D.

Recently, the Occupational Medicine Office sent questionnaires to PPPL staff who had used its services during the past year. The purpose of the questionnaire was to allow employees to evaluate these services and to offer suggestions for improving them. Of the 519 people surveyed, 238 responded. The results of the survey are as follows:

Question: What was the purpose of your visit?

Response: Most were for health evaluations. Consultations, blood pressure checks, and treatment of nonoccupational and occupational illness and injuries followed, in that order.

Question: Who furnished the services to you?

Response: The nurses saw the greatest number of the patients followed by the physician, both nurses and physician, and other personnel.

Question: How were you greeted?

Response: An overwhelming majority (236) of those responding were pleased with their reception.

Question: Were you satisfied with the services you received?

Response: Highly satisfied—152; Mostly satisfied—70; Reasonably satisfied—14; Somewhat dissatisfied—2; and Highly dissatisfied—0.

Question: What was your impression of the competence of the people who served you?

Response: Highly competent—139; Rather competent—73; Adequately competent—25; Not very competent—1; Highly incompetent—0.

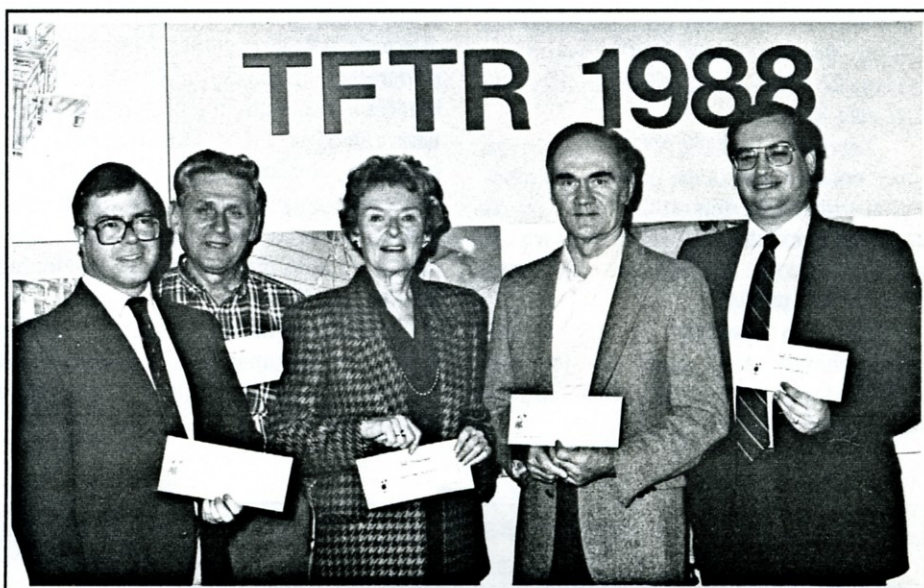
Question: What was the attitude of the people who furnished the service?

Response: Friendly/Interested/Helpful—233; Neutral/Adequate—5; Unfriendly/Disinterested—0.

A number of suggestions were received most of which concerned expanding services. Most frequently suggested were more health counseling, dietary information, and weight control; offering flu shots; and increasing the number of laboratory tests offered. Some of these, such as health counseling and dietary information can be adopted by the medical staff but others, which require increased expenditures, cannot be considered at this time. *

United Way Givers Win Free Meal

What are John Frankenberg, Walter Maciolet, Marjorie Barnett, Elmer Fredd, and Robert Wilson (left to right) holding in their hands? Answer: A free meal at Good Time Charley's Restaurant in Kingston. Along with fellow employees, Diane Carroll, Charlene Onofri, and Richard Newman, they are the winners of the eight gift certificates given away during the recent United Way Fund Drive at PPPL. Co-sponsored by Good Time Charley's and PPPL, the certificates were one of the incentives offered to employees to contribute to the United Way. Anyone who gave \$20 or more was eligible for the drawings which were held during the campaign. *



(Photo by John Peoples)

Soviets Visit PPPL US/USSR CIT Dialogue Continues

by Phyllis Rieger

Discussions on possible Soviet contributions to the Compact Ignition Tokamak (CIT) Project continued as a group of five Soviet engineers and physicists visited the Laboratory during the week of January 16.

Headed by Dr. Valerij Chuyanov, Head of Tokamak Research at the Troitsk Laboratory (part of the Kurchatov Institute of Atomic Energy in Moscow), the Soviets exchanged information on various subjects, including magnet design and diagnostics. The Soviets also presented an update on proposed designs for Soviet fly-wheel-generators, a possible contribution the USSR may make to the CIT power supply.

During the week-long visit, PPPL personnel presented updates of diagnostics, electrical systems and magnets. After a welcome by Milt Machalek on the first day of the Exchange, John Schmidt, Ken Young, Dan Huttar, and Laszlo Lontai outlined the recent CIT activities. For the next two days, PPPL personnel and the Soviets gathered into small working groups to discuss in detail CIT designs and proposals. Following these dialogues, the entire group prepared a Record of Discussion of the Exchange. The Soviets concluded their visit with a tour of the Tokamak Fusion Test Reactor (TFTR) and the Lab's Computer-Aided Design and Drafting (CADD) facility.

Milt Machalek, Head of Administration for CIT, hosted the Soviet group's visit with translational assistance offered during the week by PPPL engineers George Levitsky, John Boychuk, Alek Ilic and Pete Rogoff.

According to Milt, "This visit is another positive step in the possible collaboration with the Soviets on CIT. The Soviets continue to exhibit enthusiasm and we felt the discussions during this Exchange proved very useful."

Follow-up meetings in the Soviet Union have been suggested for this summer for electrical equipment, and for late fall for diagnostics. ✱



(Photo by John Peoples)

A group of five Soviet engineers and physicists met with various Lab personnel during their visit to PPPL.

Failure Reports: What are They? Why are They Important?

Failure Reports

Do you know that when a piece of equipment at PPPL fails *you* are required to document that failure in a Failure Report? Failure Report, sounds terrible doesn't it? Well it's not all that bad. The Laboratory requires Failure Reports so that improvements in equipment and systems can be achieved. Failures provide an unique opportunity to look at a system's design towards understanding why a problem occurred and, most importantly, what can be done to prevent it from happening again.

One of the most important things you can do is to document a failure when it first occurs. By waiting, you can lose or forget pertinent details.

Documenting a failure is easy. All you have to do is complete a simple, one-page form. On this form you are asked to identify the system and the component that failed, list the date and time of failure, provide a description of the failure, and give a probable cause, if possible.

Providing a complete and accurate description of the problem is most important. It is the basis for analysis of the failure which leads to ways to prevent the same mistake from occurring again. An incomplete or inaccurate description severely reduces the value of the report.

After the Report

What happens after a failure has been documented? Several things. First, Qual-

Continued on Page 3

The American Red Cross Penn-Jersey Blood Services' Bloodmobile visit to PPPL on Feb 17 has been cancelled. Employees will be notified when another visit is scheduled.

ity Assurance logs the data and then tries to determine if a trend by system, vendor, or type of failure is apparent. This is called a trend analysis. Second, the engineer responsible for the failed system or equipment reviews the report to determine what action is required to fix the problem and what can be done to prevent it from happening again. Finally, the problem is fixed.

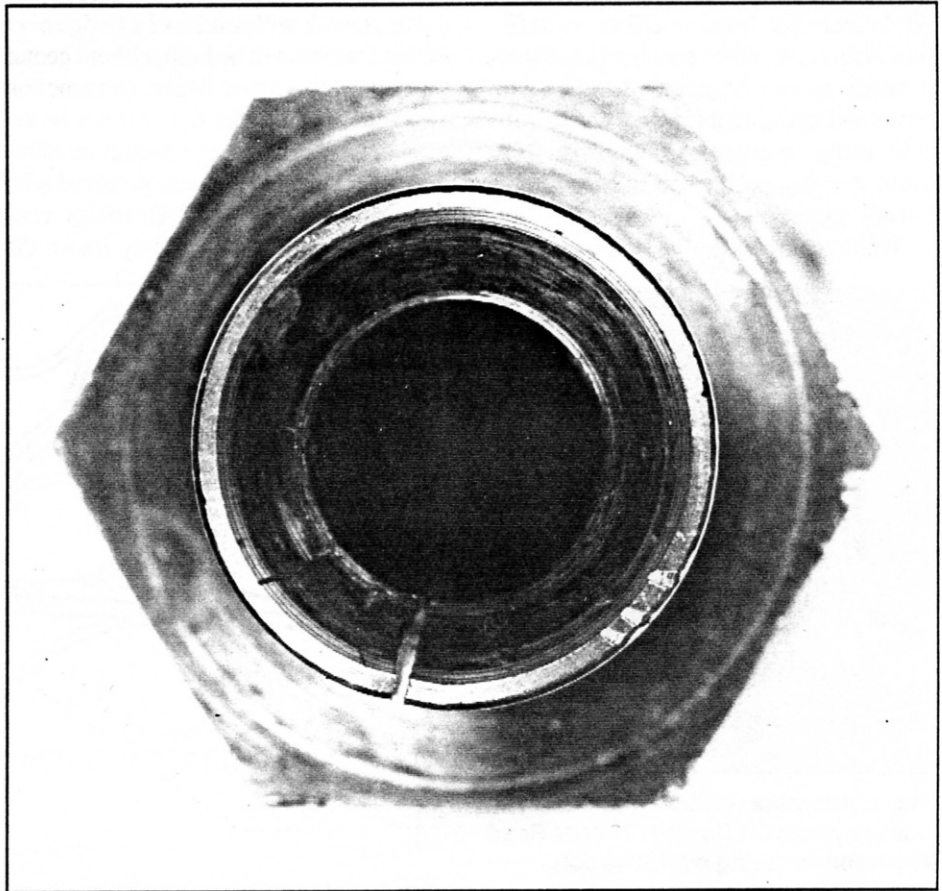
Failure Reports help Procurement Quality Assurance evaluate vendors and their products. If the trend analysis indicates a problem with a particular vendor or product, steps are taken to solve the problem. The goal is to improve the quality and reliability of PPPL equipment, allowing us to conduct our experiments knowing everything will work when needed.

| | | | |
|--|--|---------------------|------|
| PPPL FAILURE REPORT | | No. | 1 |
| System | Assembly | Date | 2 |
| Cap | | Time | 3 |
| Failure Description & Apparent Cause | | | |
| (Ref. FR No.) | | | |
| Location of Failed Part | | | |
| CORRECTIVE ACTION | | | |
| PART NUMBER (FROM CRITICAL PARTS LIST) | Initial Repair Action (Adjust, Replace, Etc.) | DURATION (HOURS) | Date |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Prepared By | | | |
| ORD SYSTEM REPRESENTATIVE: IF "CLOSEOUT BY COG" Type "CLOSED" Else Blank | | | |
| FOLLOW-ON ACTION | | | |
| RETURN THIS FORM TO QA AFTER COG SIGN | | | |
| 7/11/88 | | | |

PPPL Failure Report.

For Failure Reports to do their job, accurate and complete information is vital. Each time *you* complete one of these forms

you are helping to improve the quality and reliability of equipment at the Laboratory. ⚙



(Photo by Dietmar Krause)

This is a cracked hose fitting. Initial failure was identified as a water leak, which caused a ground fault, which prevented TFTR from operating. Upon analysis, it was determined that the crack was caused by over tightening of the fitting. People were trying to prevent leaks, but by torquing (over tightening) the fitting too much they were actually creating leaks! As a result of the analysis, new procedures were developed to prevent over tightening and a different type of fitting, stainless steel instead of brass, is used whenever a new fitting is installed or an old one is replaced.

Winter Getaway Offered

The Princeton University Education Center at Blairstown, N.J. is once again offering its "Winter Weekend" to University faculty, staff, students, and their families and friends. Scheduled for 24, 25, and 26 February, the cost is \$68 for adults, \$47 for students, and \$32 for children 12 and under. All meals and accommodations are included. Advance registration and a non-refundable deposit of \$25 per person or \$50 per family are required.

The weekend begins Friday night at 6:00 p.m. with check-in, a light supper at 7:00 p.m., and an evening of fireside activities. It ends Sunday about 3:00 p.m. Activities are varied and include dam rappel, high ropes, initiative games, a day hike and, weather permitting, ice and snow activities. There are special evening programs including a night walk and owl prowl, slide shows, and fireside fun.

Meals are served family style with hot

beverages and snacks available at all times. Sleeping arrangements are in a woodheated, bunk-room-style log cabin.

Call the Princeton Education Center at Blairstown at 201-362-6765 to make reservations. February 17 is the deadline for reservations; the weekend is limited to 60 people. Saturday arrival will be accepted, if space is available. Cost is \$58 for adults, \$37 for students, and \$22 for children 12 and under. ⚙

If you haven't completed the questionnaire on the Cafeteria please do so in the next few days. Return it to Dottie Pulyer, Room B364, C-Site by February 13.

Update: College Road Overpass Construction

Work on the overpass at Route 1 and College Road (Fig. 1) began in November. While there has been no effect on traffic flow at this time, when construction efforts intensify some disruption of traffic may occur and commuters may want to consider using an alternate route (Fig. 2) to avoid lengthy delays and to help relieve traffic congestion.

When completed, the overpass will

eliminate the traffic light at this intersection and will significantly improve the traffic flow. It will consist of a bridge over Route 1 which will be built without center support posts. Since heavy construction along the Route 1 divider will not be required, traffic diversions should be minimal (compared to what was involved with the Quakerbridge Road Overpass construction) and this should help lessen the

impact on PPPL.

The estimated cost for overpass design and construction is \$20 million of which Princeton University will pay nearly 90% and the Robert Wood Johnson Foundation the remainder. The project will take from 12 to 18 months to complete, a somewhat shorter time than if it were being done by the New Jersey Department of Transportation. *

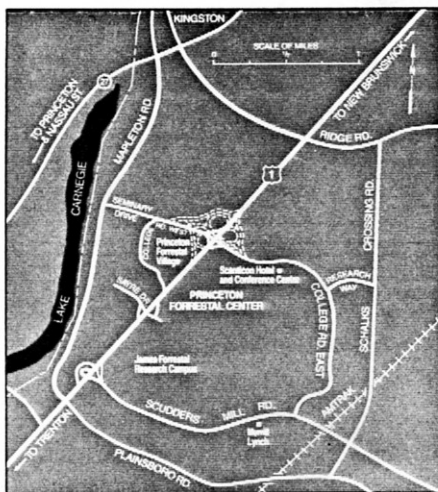


Fig. 1. Alternate routes commuters can use to bypass the Route 1/College Road intersection during overpass construction.

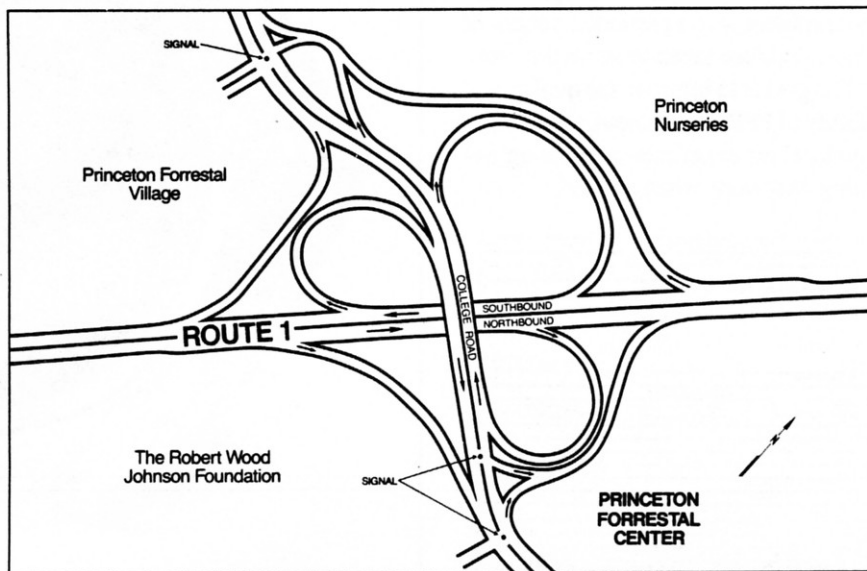


Fig. 2. Schematic of how the College Road Overpass will look when completed.



Computer Corner

Password Security Counts!

Password integrity is the first line of defense against unauthorized computer usage. This fact is self-evident but in practice its importance is often ignored.

Passwords should be a least six characters long (more is preferred) and they should be changed periodically. Avoid the temptation to use common words, phrases, personal names or nicknames, or their variations! There are (unfortunately) commercial password checkers readily available which can easily check and scan thou-

sands of combinations in a matter of seconds.

It is the responsibility of users to protect their computer accounts. Horror stories ("It can't happen to me!") in the form of case studies are cited in a book entitled "Computer Insecurity," by Adrian Norman. It is available in the PPPL Library. *

Colloquia

Colloquia are held each Wednesday from September to June at 4:15 p.m. in the MBG Auditorium, C-Site, unless otherwise noted. Speakers for February are given below:

February 8 — "Recent Developments in Cosmology," by Jim Peebles, Princeton University, Princeton, New Jersey.

February 15 — "X-Ray Lasers," by Dennis Mathews, Lawrence Livermore National Laboratory, Livermore, California.

February 22 — "Progress and Prospects—Direct Drive Laser Fusion," by Robert McCrory, University of Rochester, Rochester, New York. *

"Plastic" Chains Available

As there has been some concern regarding the safety of the metal chains used with PPPL's ID badges, especially with regards to them conducting electricity, a supply of plastic chains has been purchased by the Public Safety Department. Staff who are concerned may obtain a plastic chain by calling the Public Safety Office, ext. 2896, or by picking up a chain at the Chemical Sciences Building between the hours of 8:30-10:00 a.m. and 1:30-3:00 p.m., Monday-Friday. Only one chain per person will be given out, as the supply is limited.

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ATTENTION

BY ENTERING THIS AREA YOU CONSENT TO THE FOLLOWING PROCEDURES:

ALL PERSONS, VEHICLES AND ITEMS ENTERING AND LEAVING THIS FACILITY ARE SUBJECT TO SEARCH.

SEARCHES ON ENTRY ARE TO PREVENT THE INTRODUCTION OF PROHIBITED ARTICLES. PROHIBITED ARTICLES INCLUDE FIREARMS OR OTHER WEAPONS, EXPLOSIVES, INCENDIARY DEVICES, OR OTHER ITEMS CAPABLE OF CAUSING PERSONAL INJURY OR PROPERTY DAMAGE; ALCOHOL OR CONTROLLED DANGEROUS SUBSTANCES. PROHIBITED AND UNAUTHORIZED ARTICLES FOUND MAY BE SEIZED.

SEARCHES ON EXIT ARE TO PREVENT THE UNAUTHORIZED REMOVAL OF GOVERNMENT PROPERTY.

ATTENTION EFFECTIVE AUGUST 1, 1988

ALL GOVERNMENT VEHICLES MUST SIGN OUT OR SHOW TRIP PASS TO THE GUARD WHEN LEAVING AND UPON RETURN TO C-SITE. CONTACT THE C-SITE SECURITY DESK AT EXT. 2536 FOR OFF-SITE TRAVEL AFTER HOURS, WEEKENDS AND HOLIDAYS.

NO TRESPASSING BY ORDER OF THE UNITED STATES DEPARTMENT OF ENERGY

THE UNAUTHORIZED ENTRY UPON THIS FACILITY WHICH HAS BEEN DESIGNATED AS SUBJECT TO THE PROVISIONS CONTAINED IN 10 CFR PART 860 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENERGY, IS PROHIBITED, AND THE UNAUTHORIZED CARRYING, TRANSPORTING, OR OTHERWISE INTRODUCING OR CAUSING TO BE INTRODUCED, ANY DANGEROUS WEAPON, EXPLOSIVE, OR OTHER DANGEROUS INSTRUMENT OR MATERIAL LIKELY TO PRODUCE SUBSTANTIAL INJURY OR DAMAGE TO PERSONS OR PROPERTY, INTO OR UPON THIS FACILITY IS PROHIBITED.

WHOEVER WILLFULLY VIOLATES THE AFORESAID REGULATION SHALL, UPON CONVICTION THEREOF, BE PUNISHABLE BY A FINE OF NOT MORE THAN \$1,000. WHOEVER WILLFULLY VIOLATES THIS REGULATION WITH RESPECT TO THIS FACILITY, SHALL BE GUILTY OF A MISDEMEANOR AND, UPON CONVICTION THEREOF, SHALL BE PUNISHED BY A FINE NOT TO EXCEED \$5,000 OR IMPRISONMENT FOR NOT MORE THAN 1 YEAR, OR BOTH.

THIS FACILITY HAS BEEN DESIGNATED AS BEING SUBJECT TO SECTION 229 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED, AND 10 CFR PART 860 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENERGY.

Recently, new signs have been posted near the C-Site Security Booth. They tell us and our visitors about some of the security rules and safety procedures practiced here at PPPL. These regulations are not new and have been in effect for many years now. Like the rules we follow when driving our cars, they are for our protection as well as that of the Laboratory. We hope you will take the time to familiarize yourself with these postings. Security, ext. 2894, will be happy to answer any questions you may have. (Photos by Ed Farris)

P.S.: A plastic chain is also an option for those who have an allergic reaction to some types of metal. ✱

Call for Volunteers

The Department of Public Safety is recruiting volunteer fire police. As a volunteer you receive training, uniforms, and a feeling of personal satisfaction in helping others during emergencies. Interested staff members should contact Rosemary Shangle, Department of Public Safety, C-Site, ext. 2893.

Expecting Cat Call

During the Christmas Holidays, someone took a grey male cat from the C-Site Module area. Would that someone please call Kathy at ext. 3533—I have several boxes of cat food for you. And thanks for giving our “little wander” a home. ✱

Tell Us A Story

Our best story ideas for HOTLINE and “In Focus” come from you. So if you have an idea for an article or video segment, call Information Services. For HOTLINE, call Carol Phillips at ext. 2754. “In Focus” ideas can be channeled to Ed Farris, ext.

2090, or Phyllis Rieger, ext. 2752. What’s your news? ✱

TRANSITIONS

The HOTLINE offers congratulations to the following employees:

John J. (JJ) Clark who retired January 1 after almost 15 years of service. JJ was a Technician in Administrative Operation’s Plant Maintenance and Engineering Division.

James (Jim) Dovicsak who retired January 1 after 22 years of service. Jim was a Technician in the Engineering Department’s Neutral Beam Systems Branch.

Henry (Hank) Dymowski who retired January 1 after almost 36 years of service. Hank was a Technical Associate in the Engineering Department's Diagnostic and Engineering Branch.

Stan Kaye, PBX-M, and his wife, Donna, whose son, Joel, was born November 26.

Thomas Fratticcioli, Mail Room, and his wife, JoAnne, whose son, Thomas John, Jr., was born December 23.

Jerry Williams, Plant Maintenance, and his wife, Cheryl, whose daughter, Ashli Lynn, was born October 10. ✱

Let's Talk Benefits

Contributions, Accruals, and Vesting

Pension Contributions and Accruals

July 1, 1988 marked the effective date for new laws governing pension contributions or accruals. For Bi-Weekly employees enrolled in the Princeton Pension Plan it means that beginning in July service credits and salaries earned after age 65 will be used in the calculation for determining the final pension benefit when an employee retires. For employees in the monthly TIAA/CREF pension plan, the University will continue to make contributions on salaries earned after age 65. Participants whose contributions ceased will be reenrolled in the old plan or new plan consistent with their prior coverage.

Vesting

Beginning July 1, 1989 Bi-Weekly Princeton Pension Plan participants will be 100% vested after completing five years of service as opposed to the former ten-year service rule. There will be no partial vesting. ✱

Safety Training

The Occupational Safety Branch has scheduled the following safety training courses for February:

| Course | Date/Time/Location |
|--------------------------------------|--|
| Basic Electrical Safety | 08 February 9:00-10:30 a.m. Safety Training Trailer |
| Radiation Safety Training | 15-17 February 8:30 a.m.-12:00 noon Rm B318, LOB, C-Site |
| PCB Handling/Spill Response | 16 February 9:00-11:00 a.m. Safety Training Trailer |
| Initial Crane Operator Training | 20 February 9:00 a.m.-12:00 noon Safety Training Trailer |
| Confined-Space Entry | 22 February 9:00-11:00 a.m. Rm B318, LOB, C-Site |
| RF/Microwave Presentation | 27 February 10:00 a.m.-5:00 p.m. LOB Auditorium |
| Crane and Rigging Refresher Training | 27 February 9:00-11:00 a.m. Safety Training Trailer |
| Laser Safety | 28 February 9:00-11:00 a.m. Safety Training Trailer |

Employees must obtain permission from their immediate supervisor to attend these classes. Supervisors should call Mary Ann McBride at ext. 3468 to enroll their employees.

Basic Safety is offered every Monday at 1:30 p.m. in the Safety Training Trailer.

CPR is offered every Tuesday at 9:00 a.m. in the Safety Training Trailer. Contact Mary Ann McBride, ext. 3468, to enroll.

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