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Showing his support for the United Way, Director Harold Furth (right) hands his contribution to Rosemary Fuccello (middle), PPPL's Administrative Coordinator for the United Way Campaign, and Letty Wohar (left), a United Way Volunteer. Show your support -- contribute now. (Photo by John Peoples)

## **Teamwork is Trademark of ESS**

by Phyllis Rieger

Teamwork is one of the hallmarks of any successful project. Nowhere was this more evident than when six new power supplies had to be installed as part of the overall modification of the Princeton Beta Experiment (PBX), one of the Laboratory's major magnetic fusion energy devices which will be used to generate and to study magconfined plasma netically with beta values in excess of ten percent.

Through cooperative efforts members of the Engineering Services Section (ESS), including electrical and mechanical technicians, plumbers, carpenters, and metal and welding shop workers met the challenges involved in the PBX-M transformation. This includes office support staff, led by Athene Kan, who coordinated the project's paperwork and records.

There were numerous setbacks but, "Because of the de-

dication and long hours put in by the ESS staff, the power supply installation was not only accomplished on schedule but within budget," noted ESS Head Erik Perry. "In addition to several supporting tasks, our section contributed over 5000 man-hours of labor to install the power systems," said Erik. He credits supervisors Frank Anderson, Bill Steer, Dan Zydorski, Fred Simmonds, and Steve Kemp for leading the teams of technicians who fabricated and installed vari-

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Members of the Engineering Services Section staff instrumental in modifying PBX-M include (1st row front, left to right): Fred Simmonds, Dave Maruso, Tom Steer, Hector Morales, Dave Dunn, Joe Bonfonti, Steve Kemp, Joe Pownall, Garry Stevens, Bob Popp, Claude Yarborough, and Bill Steer. (2nd row, left to right) Athene Kan, William Chester, Frank Anderson, Daniel Zydorski, Tom Devine, Paul Kivler, Joe Bartzak, George Prosser, Lou Raics, Ed Semeta, Bob Tucker, Ed Gaydula, Bob Delany, Bob Kneeshaw, Val Bernhardt, and Bob Mosley. (3rd row back, left to right) Erik Perry, Jim Turley, Ralph Cianci, Wayne Braddock, Bob Clark, Rich Such, Monte Frazier, Don Michalis, Jack Wills, Emil Yeager, and Tom Cruser. (Photo by Ed Farris)

ous components of the PBX-M upgrading.

Frank Anderson, who heads the tech shop, proudly pointed out, "Staff who worked on the project had a combination of 627 years of service and experience. We take pride in our work and it shows."

He outlined some of the group's responsibilities for the upgrade. "The group installed more than 50,000 feet of control and power cable for the power supplies installed in the ESAT (Engineering System Assembly and Test) building. This is where the PBX-M Shaping Field Power Supply is housed. Our technicians designed, built, and installed the cable trays," said Frank.

He continued, "First, we had to strip the area of the old equipment. Then, we had to install six rectifiers which convert alternating current (ac) to direct current (dc). These are 4160 volts each and are fed by a substation in the MG (Motor Generator) Room. We added a protective fence around the rectifier and cable areas."

Frank said, "At one point, we had to cut a hole in one of the MG Room's walls to install some of the power cables. The wall, made of reinforced concrete, is 24 inches thick. To install the cable, we had to make a hole 8 inches high by 36 inches wide. A lot of work must be custom-made, such as the trays from the disconnect switches on the rectifiers and

the supports for the tray runs. Sometimes this is complicated so we're fortunate to have people as experienced as Bill Steer, Bob Popp, and Tom Cruser who led the power installation."

The ESS team spent over a year's time involved in the PBX-M transformation. At the same time, the section provided major services to TFTR and S-1.

Perhaps a comment by Tom Cruser best sums up the feeling of the ESS staff assisting in the PBX-M upgrading. "I take an interest in my job and do the best work possible," said Tom. "I feel the Laboratory's aims are important but we all, no matter what our job or area, have to continue to work together."

C-Site phone exchange 683 to switch to 243 on December 14. Details in a future HOTLINE.