

# PFP success sets stage for site use of defibrillators

Jean McKenna, FH

Last year at this time, Plutonium Finishing Plant employees initiated a pilot program to equip the plant with automated external defibrillators, known as AEDs, and to train workers to use this equipment to treat potential victims of sudden cardiac arrest.

Just how important is this? About 250,000 Americans die each year of cardiac arrest, which is usually caused by a heart rhythm disturbance called ventricular fibrillation. Many can be resuscitated, but usually only if they get help within about four minutes. For each minute that passes without a defibrillator shock stopping the disturbance and allowing the heart to return to a normal rhythm, the chance of surviving drops 10 percent.



An automated external defibrillator rests in a case at PFP.

In October 2000, nuclear chemical operator Jerry Stevenson and industrial safety engineer Matt Nolen brought the AED initiative to PFP Director Bob McQuinn. PFP employees like Stevenson, who serve with local emergency medical services and fire districts, had long recognized the value of having such equipment at the plant. Last fall, the opportunity to gain support for this program seemed to be right, for several reasons:

- The average age of PFP workers is 47 (the overall Hanford average is 48).
- PFP workscope had ramped up significantly with the installation and startup of new processes.
- Technological advances had made AEDs easy for employees to use.

“Bob McQuinn quickly recognized the importance and timeliness of this initiative,” said Nolen. “His support has been very important in our efforts to achieve successful AED installation and training at PFP.”

McQuinn credited Stevenson’s perseverance in working through some difficult organizational questions and making sure that PFP did not give up on piloting the AEDs. “His determination inspired me to do my part and the facility has been very receptive,” said McQuinn.

## Training employees

To develop the PFP pilot program, Stevenson and Nolen worked through the Benton Franklin Department of Emergency Medical and Trauma Services and the Hanford Environmental Health Foundation. They also worked closely with Stephen Gulley, regional faculty member for the American Heart Association and a PFP employee. Gulley qualified the Hanford Fire Department AED instructors.

Gulley is a paramedic who trains emergency responders such as firefighters on the use of the AED equipment. He has been involved in the AED concept since the 1970s and participated in preparing legislation for Florida and Washington, the first and second states to authorize public-access AEDs.

PFP hasn’t experienced any sudden cardiac arrest incidents at the plant since the program began. However, about a week before the new AED equipment was operational last fall, two PFP employees experienced heart attacks at home.

*Continued on page 5*

## PFP success sets stage for site use of defibrillators , cont.

On Dec. 13, Bob Grant had stayed home from his job at PFP because he had not been feeling well. When he started having pain and pressure in his chest and pain in his arm and jaw he called his mother-in-law, who's a nurse. After listening to the symptoms, she said that if he couldn't call 911, she would.

Grant was able to make the call and go unlock the front door before his heart stopped and the paramedics lost contact with him. The Fire Department reached the house in less than two minutes and performed CPR until the paramedics got there.

They used the defibrillator twice to restart his heart, and he required defibrillation two more times on the way to a hospital in Spokane. Because he got help in less than three minutes, Grant is alive and at home recovering from heart surgery.

### ISMS in action

The AED pilot program is an excellent example of the implementation of the Integrated Environmental, Safety and Health Management System, or ISMS. First, PFP workers identified the possible need for AEDs. Once management had been briefed on the issue, the pilot program was begun to investigate the need for the units, provide a method for their use and evaluate the overall program.

The AED pilot made use of all five of the Voluntary Protection Program tenets — management leadership, employee involvement, worksite analysis, hazard prevention and control, and safety and health training.

Deployment of the AEDs was well received. The pilot team sent out a request for volunteer trainees and received responses from 75 people. Today, 50 people have been trained to use the AED equipment. Drill results indicate that workers are well trained, and that even non-AED-trained workers are able to respond to a sudden cardiac arrest event effectively.

Recently, the pilot program was declared to be a success, which opened the door for other site projects to install the automated lifesaving equipment in their facilities. Installation and training programs are under way at Spent Nuclear Fuel, the Fast Flux Test Facility and the Waste Management Project. ♦



PFP employees, from left, Mike Esparza, Pat Jenkins and Mike Luckman train on the AED. The "patient" is Dave Messenger.