

Automated External Defibrillators

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PURPOSE

This Bulletin provides information on a safety concern that may impact operations at Department of Energy (DOE) facilities. Specifically, the concern is the need for Automated External Defibrillators (AED) at all work facilities and departmental fitness centers.

BACKGROUND

On June 11, 2007, a fatality occurred at the DOE Savannah River Site (SRS) involving a member of the SRS protective force. The protective force member had just completed an unsupervised physical fitness activity and was in the midst of "cooling down" prior to returning to duty when he suffered a heart attack resulting in death.

A Limited Scope Investigation concluded that there are a number of programmatic implications arising from the fatality that suggested ways in which the overall departmental fitness and emergency response programs can be improved. These suggestions included the provision of AEDs at facilities and procedures to enable more effective notification and first response. In addition, it is recommended that the Department should also provide guidance and communicate lessons learned following a health or safety emergency.

WHAT ARE THE STATISTICS?

Over 200,000 Americans die of sudden cardiac arrest every year. Up to 50,000 of these deaths could have been prevented if an AED had been available and someone had initiated the Cardiac Chain of Survival immediately at the time of the emergency.

About the size of a laptop computer, an AED is a computerized device that analyzes the heart rhythm and prompts a rescuer to deliver an electrical shock if needed. When AEDs are used in conjunction with cardiopulmonary resuscitation training (CPR), they can increase survival rates between 50-80 percent.

RECOMMENDATIONS FOR AEDS AT DEPARTMENT-CONTROLLED FACILITIES

- Make AEDs available at all DOE facilities and departmentally controlled exercise centers.
- Provide appropriate training at each facility to assist on-scene responders in their use of AEDs and their integration into CPR.

- Have in place procedures to facilitate immediate notification of emergency medical services in the event of a health or safety emergency at such facilities.

FOLLOWING A HEALTH OR SAFETY EMERGENCY

- Provide immediate post-event exposure screening for first aid responders.
- Give immediate post-event emotional assistance for personnel who may have experienced excessive levels of emotional stress.
- Provide mandatory counseling for personnel exposed to events that could lead to post traumatic stress.
- Prepare detailed lessons learned to educate managers, supervisors, and other involved personnel regarding considerations that may arise in conjunction with high stress, high hazard events.

ADDITIONAL SOURCES OF INFORMATION

- Your Safety and Health Office
- Information and training on AEDs:
 - American Red Cross
<http://www.redcross.org/services/hss/>
 - Department of Health and Human Services
<http://www.foh.dhhs.gov/Public/sitemap.asp>
<http://www.foh.dhhs.gov/default.asp>
- Information and training videos on CPR
<http://www.citizencpr.org/>
<http://www.citizencpr.org/1learncpr.html>
- Limited scope investigation report
<http://www.hss.energy.gov/CSA/CSP/AIP/>

SUMMARY

Use of AEDs can reduce deaths from sudden cardiac arrest by 25 percent and when used together with CPR can increase survival rates by up to 80 percent.

If you have any questions, please contact Dr. Bill McArthur by telephone at (301) 903-9674 or at bill.mcarthur@hq.doe.gov.

(Signed by)

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PREVENT EVENTS

Learning from Industry Experience

PREVENT EVENTS is intended for use by personnel during morning meetings, pre-job briefings, and work unit meetings to communicate key industry experience.

Management:

1. Do we have AEDs in all of our facilities?
2. Do we have a written program and procedures regarding the use of AEDs?
3. Have our safety personnel been trained in the use of AEDs and CPR?
4. Have we also provided training for designated workers in each facility in the use of AEDs and CPR?
5. Are these designated workers prepared to assist on-scene responders?
6. Do we have a program that offers post event emotional assistance and mandatory counseling?
7. Do we provide post-event lessons learned for managers, supervisors, first aid responders, and safety personnel?

Supervisors and Workers:

1. Where are the locations of the AEDs in my work areas?
2. Who can get training in the use of AEDs and CPR?
3. Is there a backup person trained in the use of the AED if the designated individual for AED use is not present during an emergency?
4. Do we have procedures and telephone numbers posted for notification of the proper people in the event of a health or safety emergency?
5. Who do we contact for emotional assistance and counseling of needs?

