

# Comments of the Independent Regulatory Review Commission



## Board of Coal Mine Safety Regulation #7-463 (IRRC #2920)

### Requirements for Automated External Defibrillators

**January 4, 2012**

We submit for your consideration the following comments on the proposed rulemaking published in the November 5, 2011, *Pennsylvania Bulletin*. Our comments are based on criteria in Section 5.2 of the Regulatory Review Act (71 P.S. § 745.5b). Section 5.1(a) of the Regulatory Review Act (71 P.S. § 745.5a(a)) directs the Board of Coal Mine Safety (Board) to respond to all comments received from us or any other source.

In the Preamble, the Board states it is “responding to a letter from a citizen who requested that AEDs [Automated External Defibrillators] be placed in coal mines for coal miners’ safety” and that the Board “agreed that placing AEDs at coal mines would be in the best interests of the miners’ safety.” We commend the Board for this proposed regulation to improve safety at mines. These comments are intended to promote clear standards in the regulation that will facilitate the common goal of protection of the public health, safety and welfare through compliance with the regulation.

#### **Section 208.70. Automated external defibrillators. – Protection of the public health, safety and welfare; Economic impact; Implementation procedures; Clarity.**

##### *1. “Consistent with the Equipment Approval Task Force Guidelines”*

Subsection (a) designates that AEDs must be located “consistent with the Equipment Approval Task Force guidelines.” The Equipment Approval Task Force Guidelines (guidelines) provided by the Board state the following in regard to medical devices: “Emergency medical apparatus may be used underground and may be stored in fresh air locations underground.”

We have two concerns relating to the incorporation of guidelines into the regulation. First, these guidelines can be amended outside of the procedures in the Regulatory Review Act, without notice and the opportunity for public comment, review by the legislature and this Commission. The guidelines could also be amended without consideration of the effect on this regulation and compliance by the regulated community. Therefore, the regulation lacks clarity because it relies on a guidance document which is subject to change.

Second, the guidelines do not provide clear direction regarding the location of AEDs, which is the title of Subsection (a). For both of these reasons, we recommend deleting the reference to guidelines from Subsection (a).

## *2. Effective location of AEDs*

Paragraph (a)(1) requires an AED to be placed at “a location on the surface of the mine.” This requirement is vague because the term “surface of the mine” is not defined and could encompass many acres.

Paragraph (a)(2) requires an AED to be placed “on or near each coal producing section.” This requirement is also vague. The phrase “on or near” is subjective and could be interpreted in many ways.

It is important in the event of an emergency for rescue personnel to quickly locate and bring the AED to the victim. According to American Heart Association literature available on the internet, the effectiveness of an AED diminishes in relation to the amount of time it takes to attach the AED to the person in distress. An AED is most effective when used within three to five minutes, although the American Heart Association concedes this goal is difficult to meet. See [http://www.heart.org/idc/groups/heart-public/@wcm/@private/@ecc/documents/downloadable/ucm\\_308905.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@private/@ecc/documents/downloadable/ucm_308905.pdf).

We are concerned that a mine could technically comply with the wording of the regulation, but not effectively accomplish the intent of improving safety. We recommend that the Board consult with emergency medical personnel including the “emergency medical technicians” and “emergency medical technician paramedics” required by 52 P.S. § 690-602 to determine the best placement of AEDs.

Given the variable number of employees, size of the mines, distances underground and underground layout of the mines, it may be impractical to prescribe uniform requirements in regulation for the effective placement of AEDs in a mine. As an alternative, the Board may want to consider a regulatory scheme which requires a minimum number of AEDs at a mine, perhaps based on the number of personnel, but allows the placement of the AEDs to be determined by the mine operator in consultation with the emergency medical personnel required by 52 P.S. § 690-602. If the Board uses this regulatory scheme, the Board should also designate in the regulation how the mine owner must document the consultation between the mine owner and medical personnel, how long the documentation must be retained by the mine operator and whether the documentation must be submitted to the Board. The final-form regulation should be written to provide for effective placement of AEDs for the safety of mine personnel.

## *3. “Emergency medical personnel”*

Paragraphs (b)(1) and (2) use the term “emergency medical personnel.” The requirements in Subsection (b) invoke training requirements for emergency medical personnel and non-emergency medical personnel. However, the regulation is not clear regarding who specifically are “emergency medical personnel,” and consequently who are non-emergency medical

personnel. We note that the Act defines the terms “emergency medical technician” and “emergency medical technician paramedic.” See 52 P.S. § 690-601. The Board should replace the term “emergency medical personnel” with the statutory terms. Alternatively, the Board could define the term “emergency medical personnel” in Section 208.1 to include both of the statutory terms “emergency medical technician” and “emergency medical technician paramedic.”

#### *4. Training*

Both paragraphs (b)(1) and (2) require training in the use of AEDs. In the event the victim is in full cardiac arrest, the AED would direct the administration of Cardio Pulmonary Resuscitation (CPR). Since AEDs cannot do CPR, the administration of CPR would have to be performed by the rescuer(s). For this reason, we recommend that the regulation specifically require CPR training in addition to AED training for mine personnel.

#### *5. Maintenance and inspection*

We have two concerns relating to Subsection (c). First, an AED is an electronic device intended to produce an electric shock to restore a stable heart rhythm and uses a speaker to communicate with the operator. These mechanisms may be susceptible to malfunction and deterioration when exposed to the dust and moisture found in a mine. We also recognize the safety concern of placing an electronic device in a mine where a spark could ignite an explosion of gasses present in a mine. Therefore, if the Board believes there is a need for the AEDs to meet specific safety requirements to be used in a mine or that AEDs need to be protected from the elements present in a mine, it would be appropriate to add specific requirements for AEDs to Subsection (c) or to add another subsection dedicated to these topics.

Second, the response to Regulatory Analysis Form (RAF) Question 27 states the regulation will not require any additional recordkeeping or paperwork. We question this statement in relation to Subsection (c), which requires maintenance and inspection in accordance with manufacturer’s operational guidelines. It would appear that some recordkeeping would be needed to ensure proper maintenance and inspection of AEDs and to demonstrate compliance with Subsection (c). We ask the Board to review its response to RAF Question 27 and explain why it is accurate. The Board should also designate minimum recordkeeping requirements in the regulation.