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RE: RIN 1219-AB44 Comments in Response to Request for Information

CSE Corporation provides the following comments in response to the questions on Self-Contained Self-Rescuers in MSHA's Request for Information on Underground Mine Rescue Equipment and Technology.

III.C. Self-Contained Self-Rescuers

1. Is there more effective technology to protect miners than the SCSRs currently available? If so, please describe.
2. Should an SCSR be developed that provides more than one hour duration of oxygen? What duration is feasible considering that miners must carry the SCSR? Would it be desirable to require smaller and lighter SCSRs with less oxygen capacity to be worn on miner's belts while at the same time requiring longer duration SCSRs to be stored in caches?

In response to both of these questions, CSE first notes that it is the manufacturer of the SR-100, which is certified by MSHA and NIOSH to be used by mine operators to provide the government-mandated minimum of one hour of oxygen for mine rescue. CSE is continually working on research and development on enhancements to the current SR-100, which has resulted in, among other things, additional indicators being included in every unit to keep the miner continuously informed as to the operating condition of the unit.

As we said in our recent testimony before a Senate subcommittee roundtable on mine safety technology (a copy of which is attached), CSE has also been working on development of a new breathing apparatus that will be longer in duration than one hour and will be smaller in size than the currently available SCSRs. We expect to have available soon more information for the agency on the design and potential capabilities of this unit.

3. MSHA standards require each mine operator to make available an approved SCSR device or devices to each miner. Should mines be required to maintain underground caches of SCSRs for miners to use during an emergency, or should each miner have access to more than one SCSR?

Since this Request for Information was issued, MSHA has issued an Emergency Temporary Standard that addresses, among other things, the topics that are the subject of this question. CSE will address these topics in its comments on the agency's Emergency Temporary Standard.

4. SCSRs are currently required to be inspected at designated intervals pursuant to 30 CFR 75.1714-3. Should SCSRs be inspected more frequently than the current requirements?

CSE is not aware of any evidence that the current inspection schedule is not sufficient to identify SCSRs that should be removed from service. In addition to the visual inspection of the outside of the unit that users are to perform on a daily basis, users of the SR-100 can check the temperature and moisture indicators on the unit to confirm that the unit is in acceptable operating condition. They also periodically perform a test of each unit's chemical bed using the ASMD. These indicators and ASMD test contribute considerably to the quality of unit inspection that can be easily done by the user. The currently mandated inspections adequately serve to identify units that have been subject to overly harsh conditions and need to be removed from service. There is no indication that CSE is aware of that these inspections need to be performed more frequently than currently required.

Rather than increasing the frequency of inspections, the agency may want to consider measures to confirm that the inspections are being done as required. For example, while CSE is not suggesting that this be mandated, there is currently available technology that mine operators could use to help them in tracking SCSRs and certifying that inspections were done. CSE is aware of technology being used in Australia to make an electronic record that SCSRs have been inspected. While this may not be practical for the daily inspection to be performed by the miner, it could be useful for other periodic inspections of the units. SCSRs in Australia have embedded in them an electronically readable card that has the serial number of the unit stored in it. A person doing inspections of the units will then use a reader to swipe each unit's serial number into the reader's memory as the unit is inspected. The reader's memory is later downloaded into a computer for recording the fact that an inspection of that unit was done on a certain date.

5. SCSR service life is determined by MSHA, NIOSH and the device's manufacturer. The service life can range from ten to fifteen years depending on the type of SCSR. Should the service life of SCSRs be reduced to five years or a different time limit?

We believe that there is no need to reduce the current ten year service life for SCSRs. CSE has found that SR-100s that have reached ten years of service life are capable of performing within certification standards. The service life is based on the expected durability of the component parts of the units, and the expected durability of the SR-100 has proven to be adequate in the field if the unit is not exposed to harsh treatment.

Rather than decreasing service life, the current field inspections for the SR-100, diligently performed, are sufficient to ensure that non-conforming units are removed from service. User inspections supplement the service life criteria for determining when a unit should be removed from the field. The service life establishes an outside limit for the longest period of time a unit is allowed to remain in the field (assuming it passes all user

inspections performed over that lifetime). CSE is not aware of any evidence that the current service life should be reduced.

Conclusion

CSE appreciates having the opportunity to provide these comments and will provide further comments on these and other topics in its response to the agency's current mine rescue Emergency Temporary Standard.

Sincerely,

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CSE Corporation