Pennsylvania Technical Advisory Committee
On Diesel Powered Equipment

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May 18, 2007

Joseph Sbaffoni, Director
Bureau of Mine Safety
Fayette County Health Center
100 New Salem Road, Room 167
Uniontown, Pa. 15401

RE: Alternate Test Procedure under Section 217-A and 218-A for a Cummins 4B3.3 NA 65 HP engine with a M70 DST Management System in a Model 255-4WD Personnel Carrier

Dear Mr. Sbaffoni:

Article II-A of the Pennsylvania Bituminous Coal Mine Act (the act) provides for the use of diesel-powered equipment in underground bituminous coal mines. Section 224-A of the act created a Technical Advisory Committee ("TAC") for the purpose of advising the Department regarding implementation of Article II-A and evaluation of alternative technology or methods for meeting the requirements of Article II-A.

Background

On June 9, 2006 A.L.Lee Corporation submitted a request to the Bureau of Mine Safety (BMS) for evaluation and approval of an Alternate Test Procedure pursuant to Section 217-A and 218-A of Article II-A of the act for a Cummins 4B3.3 NA 65 HP engine with a M70 DST Management System in a Model 255-4WD Personnel Carrier.

On April 18, 2007 the Director of BMS requested the TAC to evaluate the Cummins 4B3.3 NA 65 HP engine with a M70 DST Management System in a Model 255-4WD Personnel Carrier and to advise the Department regarding the TAC’s recommendation as to whether the referenced equipment meets the need for the Alternate Test Procedure for the 5 minute CO test required under Section 217-A and 218-A of the Act, and if so, the procedures to follow for the Alternate Test.
Investigation

On May 2, 2007 the TAC traveled to A.L.Lee Corporation in Beckley, WV to inspect the equipment and evaluate the need for the Alternate Test. Three separate 5 minute tests were conducted as well as three separate 90 second tests. The personnel carrier was equipped with a transmission high temperature warning light which A.L Lee stated was set to activate above 240 degrees F. There was also a diverter that was used to divert the oil cooling fluid to the transmission cooler during the 5 minute test while the transmission was under load. At no time did the transmission high temperature warning light come on during or after any of the tests conducted. A.L.Lee stated that the diverter will be used each time the 5 minute test is conducted as stated in the operator's manual for this procedure.

Recommendation

Our recommendation is based upon the results of the tests conducted on May 2, 2007, observations made during our investigation and information provided by A.L.Lee Corporation. The TAC has determined that no significant overheating of the transmission occurred during the 5 minute test when conducted as stated in the operator's manual for this equipment. No other need has been shown for the 90 second test. Therefore it is the recommendation of the TAC that approval not be granted for the Alternate Test Procedure and the 5 Minute Test be used to comply with Section 217-A and 218-A of the Act.

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