

Pennsylvania Technical Advisory Committee On Diesel Powered Equipment

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

RE:

Brookville Equipment Corporation Model 7M100D Personnel Carrier with a Deutz BF4M2012 100 HP Diesel Engine request for Alternate Emissions Test Procedure for Sections 217-A and 218-A.

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 January 23, 2008, Brookville Equipment Corporation (Brookville) submitted a request to the Bureau of Mine Safety for an alternative test procedure for the five minute carbon monoxide (CO) tests required under Sections 217-A and 218-A of the act for the Brookville Model 7M100D Personnel Carrier/Locomotive with Deutz BF4M2012 100 HP diesel engine and M30 DST Management System. On January 31, 2008 the Director requested the TAC to advise the Department concerning Brookville's request for an alternate test procedure for CO tests required under Sections 217-A and 218-A of the Act. The engine and emission system was previously approved as a unit by the Department based upon the TAC's recommendation and assigned a BOTE-DEES Approval No. 36-06.

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Investigation

On May 9, 2008 the TAC members traveled to the Brookville facilities to evaluate Brookville's request for the need for an alternate test procedure. Both 5 minute and 90 second tests were observed and the results recorded (Attachment 1).

The 5 minute CO test was conducted first without the use of an external water cooler for the transmission oil. The test was run for the full 5 minutes and the results were recorded. During this time the maximum surface temperature observed was 240 degrees F. The maximum engine water temperature observed was 180 degrees F. The maximum transmission oil temperature observed was 230 degrees F, which is below the 240 degrees F transmission oil temperature warning as shown on the gage.

Based on these observations and information provided by Brookville on the readings obtained, the need for the Alternate 90 second CO test was not shown.

Recommendation

The TAC does not recommend approval of the Alternate 90 Second Test Procedure for the Brookville Model 7M100D Personnel Carrier/Locomotive with Deutz BF4M2012 100 HP diesel engine and M30 DST Management System. The TAC believes that need for the Alternate Test Procedure was not shown and thus the standard 5 minute test procedure for CO tests as required under Sections 217-A and 218-A of the Act shall apply to this equipment.

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