

**Pennsylvania Technical Advisory Committee
On Diesel Powered Equipment**

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

RE: Brookville Equipment Corporation Daimler Chrysler Model 7M100D
Personnel Carrier/Locomotive with Daimler/Chrysler 100 HP Diesel Engine
Sections 217-A and 218-A Alternative Emissions Test Procedure

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 October 18, 2006, Brookville Equipment Corporation (Brookville) submitted a request to the Bureau of Deep Mine Safety (BDMS") 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's Daimler Chrysler Model 7M100D Personnel Carrier/Locomotive with Daimler/Chrysler 100 HP diesel engine and M30 DST Management System. On November 6, 2006, the Director of BDMS 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.

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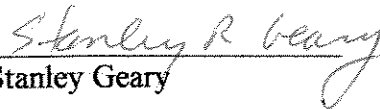
BUREAU OF DEEP MINE SAFETY

Investigation

On December 15, 2006, the TAC members traveled to the Brookville facilities to evaluate Brookville's request for an alternate test procedure. Both 5 minute and 90 second tests were observed. The CO emissions observed during the testes complied with the emission requirements of the act. Although the diesel powered package can withstand the emissions tests as described in Sections 217-A and 218-A of Article II-A, the transmission oil temperature approached the automatic engine shut down temperature. After reviewing the CO concentrations recorded during the tests, we believe the 90 second alternative test will produce results very similar to the 5 minute test.

Recommendation

The TAC recommends approval of the attached Alternative Stall Test Procedure for the Brookville's Daimler Chrysler Model 7M100D Personnel Carrier/Locomotive with Daimler/Chrysler 100 HP diesel engine and M30 DST Management System. The TAC believes that use of this alternative test procedure will not reduce or compromise the level of health and safety afforded by the act.


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**ALTERNATIVE STALL TEST PROCEDURE FOR PA STATE ACT 182, ARTICLE II-A
DIESEL-POWERED EQUIPMENT**

ALTERNATE PROCEDURE, Section 217-A: (an alternative to items 8 through 14)

1. Place the equipment into an intake entry. Make sure no personnel are in front of or behind the equipment during test.
2. Set the brakes and chock the wheels.
3. Start the diesel engine and allow it to warm up to operating temperature.
4. Install the carbon monoxide CO sampling devices into the untreated exhaust gas port provided.
5. Allow CO sampling device to stabilize.
6. Put the transmission in high gear.
7. With brake still applied, put the engine at full throttle to induce converter stall for 90 seconds. Stop test immediately if any controls or indicators are not in their operating range, or if equipment moves while at stall.
8. Record three CO readings at 60, 75, and 90-second intervals during converter stall.
9. Return engine to low idle and put transmission in neutral. Allow the torque converter temperature to stabilize.
10. Take an average of the three readings.
11. Comply with record-keeping requirements pursuant to Section 214-A.

ALTERNATIVE PROCEDURE, Section 218-A: (an alternative to items 10-14)

1. Place the equipment into an intake entry. Make sure no personnel are in front of or behind the equipment during test.
2. Set the brakes and chock the wheels.
3. Start the diesel engine and allow it to warm up to operating temperature.
4. Install the carbon monoxide CO sampling device into the untreated exhaust gas port provided.
5. Allow CO sampling device to stabilize.
6. Put the transmission in high gear.
7. With brakes still applied, put the engine at full throttle to induce converter stall for 90 seconds. Stop test immediately if any controls or indicators are not in their operating range, or if equipment moves while at stall.
8. Record three CO readings at 60, 75, and 90-second intervals during converter stall.
9. Return engine to low idle and put transmission in neutral. Allow the torque converter temperature to stabilize.
10. Take an average of the three CO readings.
11. Install the carbon monoxide CO sampling device into the treated exhaust gas port provided.
12. Repeat steps (5) thru (10).
13. If CO reading for untreated exhaust gas is greater than twice the baseline established under 217-A(b), or if the CO reading for treated exhaust is greater than 100 ppm, the equipment has failed and must be serviced and retested before it is returned to regular service; and
14. Comply with record-keeping requirements pursuant to Section 214-A.