

**MINUTES**  
**Technical Advisory Committee on Diesel-Powered Equipment**  
**Fayette County Health Center**  
**July 20, 2004**

The Technical Advisory Committee on Diesel-Powered Equipment (TAC) held a regular meeting on July 20 in the Deep Mine Safety Training Room at the Fayette County Health Center in Uniontown. The meeting began at 10:00 a.m.

Attendance:

Members Present:

Eugene Davis  
Robert DuBreucq

Others Present:

Bob Bohach, RAG Cumberland  
Joe Mazur, RAG Cumberland  
Alan L. Martin, BDMS  
Daniel J. Smicik, BDMS  
Floyd Campbell, Emerald Mine Local 2258  
Robert Santella, Emerald Mine Local 2258  
Larry Conrad, Brookville Equipment Corp.  
Norbert Paas, DST  
Joe Caldwell, Rohmac, Inc.  
Buck Lovern, Rohmac, Inc.  
Allison D. Gaida, BDMS

Minutes of the April 20, 2004, meeting were distributed and reviewed. There were no changes to the minutes, and Gene Davis and Bob DuBreucq approved them as submitted.

Old Business:

Update on Legislative Action on the Proposed Diesel Law Amendments: The TAC advised the Department that if no action is taken on amendments that were submitted nearly 2 years ago, the TAC would request that their request for legislative approval of the amendments be withdrawn and that a new review of the amendments be undertaken.

Update on TAC Review: During their audit review, the TAC reported that the "Pennsylvania diesel fleet is in excellent condition with high quality management and workers at each operation insuring compliance with the Act." The TAC observed a number of conditions they believe need further investigation such as the performance of oxidation catalysts and means to improve emissions during light duty cycles. The TAC recommended an industry-wide seminar to promote diesel knowledge and experience.

Testing of the Cummins QSB 240 Diesel Engine: The TAC recommended final approval of the Alternate Test Procedure for this engine provided the drive train of equipment does not change.

New Business:

Flame Arrestor Investigation: The TAC conducted a technical investigation of the flame arrestor and its relationship to the March 4, 2004, fire incident at the RAG Cumberland Resources, LP Cumberland Mine. The TAC concurred with the June 7, 2004, report of Dry Systems Technologies (DST) that the flame observed coming out of the exhaust pipe outby the flame arrestor was probably due to an ignition of the unspent fuels and hydrocarbon mixture in the exhaust piping outby the flame arrestor. Since the flame arrestor was found to be defective by DST, the TAC believes the flame arrestor was a contributing factor in the incident. The TAC recommended that exhaust piping should not be installed outby an end-of-line flame arrestor if its length either exceeds 18 inches or contains more than one elbow which shall not exceed 45 degrees. They provided a list of recommendations to follow for all systems where exhaust piping is required to be installed outby an end-of-line flame arrestor. The consensus of the group was that the temperature sensor on the unit should be moved to the outby end of the flame arrestor.

M30 DST Filter Investigation: The new DST manufactured M30 filter did not fit the original filter housings of the equipment nor did they provide an adequate seal of the filter in its housing as effective as the original Fleetguard manufactured M30 filter. The quality control problems with the DST M30 filter appear to have been corrected and mine management has modified the filter housings to accommodate either the new DST M30 filter or the original Fleetguard M30 filter.

The Department notified the equipment manufacturer that any revisions to an approval must be submitted to the Department for approval before such revision is implemented.

Rohmac Request for Filter Modification: Rohmac, Inc. requested a filter modification for the Diesel-Exhaust Conditioning (DEC) System for use on the MicroTraxx Tractor Model No. MT-436 fitted with a Lister-Petter LPU2 16.2 hp diesel engine. The TAC recommends approval of this Clean Air Systems silicon carbide dpm filter with Fuel Borne Catalyst and that an untreated baseline for this unit be established at 123 ppm CO. TAC also recommends that as ‘best practices’ that a treated smoke dot reading be taken on the unit at each 100-hour emissions test to insure that the dpm filter has not cracked or been significantly breached.

Fuel Additives: At the request of a mine operator, the TAC offered to conduct emissions testing of diesel equipment to determine if the use of fuel additives could improve emissions performance of the equipment. Norbert Paas of DST, wanted the records to reflect that DST does not recommend the use of fuel additives and will not guarantee performance of its oxidation catalyst if fuel additives are used.

Diesel Emergency Fire Fighting Equipment at Emerald and Cumberland Mines: At the Bureau’s request, the TAC examined the diesel powered emergency fire fighting equipment used at the Emerald and Cumberland Mine. After examination of the units, the TAC found that they are in compliance with Section 201-A of the Bituminous Coal Mine Act. The TAC recommends that the units use a low-sulfur underground diesel fuel and a fuel stabilizer.

Cummins 4BTA 3.9C (116HP) Diesel Engine: The TAC recommended approval of this engine with the DST after-treatment system as meeting the requirements of Section 203(A)(a)(1) provided the general specification sheet and exhaust gas shut down temperature of 285 degrees Fahrenheit be strictly adhered to at all times.

Alternate Test Procedure of Brookville 118M116D Personnel Carrier with Cummins 4BTA 3.9C (116HP) Diesel Engine: On June 28, 2004, the TAC and BDMS went to Brookville Corporation to evaluate Brookville's April 27 request for an alternate test procedure to comply with Sections 217-A and 218-A. As a result of its testing, The TAC recommended approval of the Alternative Stall Test procedure for the Brookville 18M116D Personnel carrier with a Cummins 4BTA3.9C, 116 hp diesel engine.

Mining Diesel Emissions Conference: The TAC requested approval to attend the Mining Diesel Emissions Conference (MDEC) in Markham, Ontario, on October 13-15, 2004.

With no further business to discuss, the meeting adjourned at 1:40 p.m. The next meeting will be held on October 19 at 10 a.m.