



# pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF MINE SAFETY

746

July 6, 2011

Mr. Rob Bottegal  
AMFIRE Mining Company, LLC  
One Energy Place  
Latrobe, PA 15650-9628

Re: Bucyrus Model 482 D Diesel Scoop for Madison Mine  
Engine and emissions control package evaluation under Sections 403, 417, and 418  
of the Act for a Cummins C3.3 Engine (MSHA ID 07-ENA040004 Part 7) 85hp @2600  
rpm engine with an emissions control system using a FS&T Model FST-115-26 DPM  
filter and an Evapar Model AZ29 oxidation catalyst in a Bucyrus Model 482D Diesel  
Scoop.

Dear Mr. Bottegal


This letter is in response to your June 27 request for temporary approval to utilize the  
Bucyrus Model 482D Diesel Scoop at Madison Mine prior to the July 13 TAC Meeting.

The Bureau of Mine Safety and the TAC Committee performed inspections and conducted  
tests on June 27, 2011 on the above referenced equipment. The TAC Committee issued a  
recommendation on June 28, 2011 for temporary approval of the above described diesel  
power package if requested before the regularly scheduled TAC Meeting on July 13, at which  
time the TAC should recommend final approval for the unit.

- **This recommendation is provided with the understanding that the General Specification Sheet (Attachments 1 and 2) be strictly adhered to.**

The Bureau of Mine Safety grants temporary approval for this equipment to be used prior to  
the regular scheduled TAC Meeting on July 13, 2011. The above TAC recommendations  
must be strictly adhered to at all times during the use of this equipment.

Sincerely,

  
Joseph A. Scaffoni  
Director  
Bureau of Mine Safety

Enclosure

cc: Ron Bowersox  
Paul Borchick

JAS/cd

bcc: Martin  
Antoon  
Gaida  
TAC/Dunn

\\epmsuns03\bms\$\AdvisoryCommittee\TAC - DIESEL LETTERS BY YEAR\2011\TEMP APPROVAL USE OF BUCYRUS  
482D SCOOP AMFIRE - MADISON MINE.DOC

June 6, 2007

**BUCYRUS EQUIPMENT CORP.  
MODEL 482D  
Diesel Scoop**

General Specifications of the Diesel-Powered Equipment Package

Engine Manufacturer		Cummins		
Engine Model		C3.3		
Horsepower		85		
Rated Speed		2600		
Manufacturer's Recommended Exhaust Back-pressure (InH2O)		40.8		
Maximum Exhaust Out Temperature		270 F		
<b>MSHA Engine Approval</b>		<b>MSHA Part 7</b>		
MSHA Certification No.		07-ENA040017		
Rated Speed		2600		
Rated Horsepower		85		
Exhaust GAS Flow (SCFM)		475 CU.FT/MIN		
ISO 8178-1 Average DPM (gr/hr)		16.14		
Average Ambient DPM Level (mg/m3)		.10		
MSHA Ventilation Rate (CFM)		Part 7)	4500	
Pa. State Ventilation Rate (CFM)				
<b>Emissions Control System</b>				
Fuel Injection Pump	Make	Bosch	Mechanical	
	P/N	n/a		
Oxidation Catalyst	Make	EVARPAR	AZ29	
	P/N	1055319		
Heat Exchanger	Make	BUCYRUS		
	P/N	399823		
DPM Filter	Make	FS&T	Model	FST-115-26
	P/N	607513	Filter Size	12.75 O.D.
	Air Rating (CFM)		Filter Length	26.00
	Surface Area (in3)			
	Efficiency = 95%			95%@302
	Recommended Exhaust Back-Pressure			28"

ATTACHMENT 1

*TRANTED*

*RAW*

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\* ECOM - J2KN \*  
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Date            Time  
06.27.11      03:02 PM

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Gas analysis  
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Fuel type  
Oil-Diesel

T.Air	85	°F	
T.Gas	76	°F	
T.Sensor	87	°F	
O2	10.3	%	
CO	6	PPM	-----
NO	503.8	PPM	
NO2	58.5	PPM	
NOx	562.3	PPM	
CO2	7.8	%	

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ECON America Ltd.  
1628 Oakbrook Drive  
Gainesville  
Georgia 30507  
Tel. 770-532-3280  
Fax: 770-532-3620  
Toll-Free 877-326-6411  
www.ecomusa.com

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\* ECOM - J2KN \*  
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Date            Time  
06.27.11      02:58 PM

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Gas analysis  
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Fuel type  
Oil-Diesel

T.Air	85	°F	
T.Gas	76	°F	
T.Sensor	87	°F	
O2	9.9	%	
CO	115	PPM	-----
NO	519.9	PPM	
NO2	45.4	PPM	
NOx	565.3	PPM	
CO2	8.1	%	

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*ATTACHMENT 2*