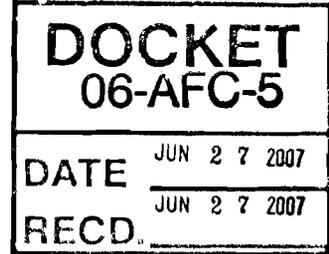


From: James Reede
To: Docket Optical System
Date: 6/27/2007 9:35 AM
Subject: Fw: Fwd: Panoche Energy PDOC Comments
Attachments: Cummins_CARB-T3-CFP15E-F10[1][1].pdf

CC: Keith Golden; Will Walters
 Please docket this email and attachment, thanks



Will FYI

James W. Reede, Jr., Ed.D.
Energy Facility Siting Project Manager
California Energy Commission
1516 - 9th Street
Sacramento, CA 95814
(916) 653-1245 voice - (916) 654-3882 Fax
jreede@energy.state.ca.us

>>> <Maggie_Fitzgerald@URSCorp.com> 6/27/2007 9:30 AM >>>

James:

Below is correspondence from SJVAQD for your information/file. Thanks,
Maggie

Maggie Fitzgerald
 URS Corporation
 2020 East First Street, Suite 400
 Santa Ana, CA 92705
 714-648-2759 direct
maggie_fitzgerald@urscorp.com

----- Forwarded message -----

From: David Jenkins <davdjenk@gmail.com>
Date: Jun 27, 2007 7:54 AM
Subject: Panoche Energy PDOC Comments
To: Stanley Tom <stanley.Tom@valleyair.org>
Cc: Errol Villegas <errol.villegas@valleyair.org>, "John Lague@urscorp.com" <john_lague@urscorp.com>, "Garrett, Stephen M." <smgarrett@bibb.com>, Mike King <mpk.nextgen@gmail.com>

Stanley,

Below are PEC's responses [in brackets] to your (and CEC) PDOC comments. Please respond as to your acceptance of these comments. Thanks,

Dave

1. The CEC states PEC has proposed to perform commissioning on only two turbines at any one time and requests us to place a condition to that effect for consistency. Therefore, I propose to place the following condition on the PDOC:

No more than two turbines shall be commissioned at any one time. [District Rule 2201]

[PEC is agreeable to the District's recommended language as shown above.]

2. Do you have a copy of the manufacturer guarantees for the turbines? CEC is questioning the lb/hour values and I would like to state those are the manufacturer guarantees.

[PEC is working through a final purchase agreement with GE (the turbine manufacturer) which will include the emission guarantees for the turbines. PEC and GE have an understanding that these emission rates will be the same as those represented in the air permit application to the District and the CEC AFC.]

3. The CEC states the VOC commissioning emissions should be equal to the worst case startup or shutdown VOC emissions. The current PDOC limits VOC commissioning emissions to 6.63 lb/hour and CEC would like to revise this to the worst case shutdown VOC emissions which is 17.14 lb/hour.

[PEC is agreeable to the CEC recommendation on VOC commissioning startup and shutdown emissions provided that these emission rates will not inadvertently effect the ERC requirements.]

4. CEC wants a Tier 3 engine for the firewater pump instead of the Tier 2 engine proposed in the project. Do you have a Tier 3 engine with emission specs?

[PEC is agreeable to procuring a Tier 3 fire pump engine provided that a Tier 3 engine of suitable specifications are both available and CARB-certified. If a Tier 3 engine of suitable specifications is not available and/or CA-certified, PEC will procure a Tier 2 engine. Attached is a Tier 3 engine spec from Cummins. Note that this spec sheet states that the emission rates have not been CARB approved.]

5. CEC would like to see the startup and shutdown lb/hour limits to be one hour averaging period instead of three hour. Rule 4703 only allows for a two hour limit per startup or shutdown event so does a three hour averaging period even make sense? Please let me know if going with an one-hour averaging period for the startup and shutdown emissions is agreeable.

[PEC is agreeable to a 1-hour startup and shutdown emissions averaging period.]

--

David Jenkins

Cell (317) 431-1004
davdjenk@gmail.com

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David Jenkins

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California ATCM Tier 3 Emission Data
EPA Tier 3 Emission Data

CFP15E-F10 Fire Pump Driver

PRELIMINARY

Awaiting UL and FM witness testing per UL1247 and FM1333

Type: 4 Cycle; In-Line; 6 Cylinder
Aspiration: Turbocharged, Charge Air Cooled

15 PPM Diesel Fuel													
RPM	BHP	Fuel Consumption		D2 Cycle Exhaust Emissions						Exhaust			
		Gal/Hr	L/hr	Grams per BHP - HR			Grams per kW - HR			Temperature		Gas Flow	
				NMHC+NOx	CO	PM	NMHC+NOx	CO	PM	°F	°C	CFM	L/sec
1470	405	20.5	77.6	2.722	2.610	0.131	3.650	3.500	0.175	945	507	2740	1293
1760	479	23.4	88.6							850	454	2811	1327
2100	514	26.0	98.4							840	449	3400	1605

The emissions values above are based on CARB approved calculations for converting EPA (500 ppm) fuel to CARB (15 ppm) fuel.

300-500 PPM Diesel Fuel													
RPM	BHP	Fuel Consumption		D2 Cycle Exhaust Emissions						Exhaust			
		Gal/Hr	L/hr	Grams per BHP - HR			Grams per kW - HR			Temperature		Gas Flow	
				NMHC+NOx	CO	PM	NMHC+NOx	CO	PM	°F	°C	CFM	L/sec
1470	405	20.5	77.6	2.983	2.610	0.149	4.000	3.500	0.200	945	507	2740	1293
1760	479	23.4	88.6							850	454	2811	1327
2100	514	26.0	98.4							840	449	3400	1605

QSX15 Base Model Manufactured by Cummins Inc.
- Using fuel rating 10663

Reference EPA Standard Engine Family: 6CEXL015AAD

No special options needed to meet current regulation emissions for all 50 states

Test Methods:

EPA/CARB Nonroad emissions recorded per 40CFR89 (ref. ISO8178-1) and weighted at load points prescribed in Subpart E, Appendix A, for Constant Speed Engines (ref. ISO8178-4, D2).

Diesel Fuel Specifications:

Cetane Number: 40-48
Reference: ASTM D975 No. 2-D

Reference Conditions:

Air Inlet Temperature: 25°C (77°F)
Fuel Inlet Temperature: 40°C (104°F)
Barometric Pressure: 100 kPa (29.53 in Hg)
Humidity: 10.7 g/kg (75 grains H₂O/lb) of dry air; required for NOx corrector
Restrictions: Intake Restriction set to a maximum allowable limit for clean filter; Exhaust Back Pressure set to maximum allowable limit.

Tests conducted using alternate test methods, instrumentation, fuel or reference conditions can yield different results.