SCAQMD BACT Determination

Source Type:	Major/LAER
Application No.:	516409
Equipment Category:	I.C. Engine - Emergency, Compression Ignition
Equipment Subcategory:	PM Filter
Date:	**December 10, 2015**

1. EQUIPMENT INFORMATION

A. MANUFACTURER: Caterpillar	B. MODEL: C9
C. DESCRIPTION: Diesel fuel, six cylinders, turbocharged and aftercooled,	
D. FUNCTION: Drives an emergency electricity generator located at building 304	
E. SIZE/DIMENSIONS/CAPACITY: 374 BHP	
COMBUSTION SOURCES	
F. MAXIMUM HEAT INPUT: Gross heat input in btu per hour at the higher heating value of the fuel	
G. BURNER INFORMATION	

TYPE	INDIVIDUAL HEAT INPUT	NUMBER
Make and model of burner	Rated heat input of single burner, in btu/hr	Number of burners
Enter additional burner types, as needed, add extra rows		

H. PRIMARY FUEL: DIESEL	I. OTHER FUEL: Supplementary or standby fuels
J. OPERATING SCHEDULE: <1 HRS/DAY 1 DAYS/WEEK 26 WKS/YR	
K. EQUIPMENT INFORMATION COMMENTS: Diesel particulate filter installed	

2. COMPANY INFORMATION

A. COMPANY: US Gov't VA Medical Center	B. FAC ID: 014966
C. ADDRESS: 11301 Wilshire Blvd CITY: West Lost Angeles STATE: CA ZIP: 90073	D. NAICS CODE: Click "NAICS" for link
E. CONTACT PERSON: Robert Benkeser	F. TITLE: Director, Facilities Management
G. PHONE NO.: 310-268-4677	H. EMAIL: robert.benkeser@va.gov

3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: PO NO PC
C. SCAQMD ENGINEER: Roy Olivares	
D. PERMIT INFORMATION: PC ISSUANCE DATE: Click here to enter a date. P/O NO.: 6/29/11 PO ISSUANCE DATE: 6/29/2011	
E. START-UP DATE: 6/29/2011	
F. OPERATIONAL TIME: Intermittent--for engine readiness test. Limited to 200 hrs/year which includes no more than 50 hours/year and 4.2 hour/month for maintenance and testing. Engine shall not be operated in idle mode for more than 240 consecutive minutes.	

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections ($\%O_2$, $\%CO_2$, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOx+VOC	SOx	CO	PM OR PM_{10}	INORGANIC
BACT Limit		3 g/bhp-hr		2.6 g/bhp-hr	0.15 g/bhp-hr	
Averaging Time						
Correction						

B. OTHER BACT REQUIREMENTS: The filter was required to reduce toxic risk from diesel particulate emissions, but also reduces PM10, VOC and CO.

C. BASIS OF THE BACT/LAER DETERMINATION: Acheived in Practice

D. EMISSION INFORMATION COMMENTS: Compliance with rule 404 and Rule 1470. Engine meets applicable Tier 3 BACT limits.

5. CONTROL TECHNOLOGY

A. MANUFACTURER: Clean Air Systems	B. MODEL: FCA225

C. DESCRIPTION: Diesel Particulate Filter with hiback data logging and alarm system to automatically shut down engine or switch it to power de-rating when backpressure exceeds setting specified by manufacturer. CARB certified.

D. SIZE/DIMENSIONS/CAPACITY: An appropriate size parameter such as rated heat input, usable volume, rated filter efficiency, and/or one more characteristic dimensions.

E. CONTROL EQUIPMENT PERMIT INFORMATION:

APPLICATION NO. Click here to enter text. PC ISSUANCE DATE: Click here to enter a date.
PO NO.: Click here to enter text. PO ISSUANCE DATE: Click here to enter a date.

F. REQUIRED CONTROL EFFICIENCIES: Minimum efficiencies of the system control equipment as required by permit, or the most stringent rule requirement. The control or destruction efficiency is determined across the control device (e.g. inlet-outlet). Collection or capture efficiency is based at each point of contaminant collection in the system. Enter each contaminant that applies. Add rows as needed.

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NOx	___%	___%	___%
SOx	___%	___%	___%
CO	___%	___%	___%
PM	___%	85%	___%
PM_{10}	___%	___%	___%
Inorganic	___%	___%	___%

G. CONTROL TECHNOLOGY COMMENTS Permit condition to regenerate PM filter after every 24 cold engine start-ups or HiBack alarm signal, whichever occurs first. For regeneration run engine until exhaust temp exceeds 572 Deg. F and normal backpressure reading. Engine exhaust temp at inlet to PM filter ≥ 572 Deg. F except during cold engine start-up, not to exceed 10 minutes.

6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: Source test or other method that was used to demonstrate compliance

B. DATE(S) OF SOURCE TEST: An appropriate size parameter such as rated product throughput, usable volume, and/or one more characteristic dimensions.

C. COLLECTION EFFICIENCY METHOD: The method used to determine collection efficiency of the system (e.g., EPA Method 204, mass balance), if applicable. A brief description of the collection efficiency test may be included if there is no applicable method (e.g., OVA measurements, smoke tests)

D. COLLECTION EFFICIENCY PARAMETERS: The quantitative parameters used to verify the method or procedures in Section 6(C). Examples include static pressure measurements, anemometer measurements, and mass balance results.

E. SOURCE TEST/PERFORMANCE DATA: Enter source test results for each criteria contaminant or precursor (mass emissions, concentrations or efficiencies) if they differ from the requirements previously listed. As previously requested in Section 4, identify any corrections or averaging times

F. TEST OPERATING PARAMETERS AND CONDITIONS: List any important operating conditions maintained during the source test or normal operations. Examples include, but may not be limited to, pressure differentials across control devices, feed rates, firing rates, temperatures, flow rates, or other parameters used to evaluate the level of operation of the equipment during the test or operations that may affect emissions from the equipment.
G. TEST METHODS (SPECIFY AGENCY): Identify the primary source test methods used and identify the agency (e.g., CARB Method 425).
H. MONITORING AND TESTING REQUIREMENTS: Every 5000 hours inspect integrity of PM filter and if necessary replaceInclude any monitoring or testing requirements and their frequency that will be enforced to maintain emission levels reported for the BACT Determination.
I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: Click here to enter text.	B. CCAT: Click here to enter text.	C. APPLICATION TYPE CODE: Click here to enter text.
D. RECLAIM FAC? YES ☐ NO ☐	E. TITLE V FAC: YES ☐ NO ☐	F. SOURCE TEST ID(S): Click here to enter text.
G. SCAQMD SOURCE SPECIFIC RULES: Click here to enter text.		
H. HEALTH RISK FOR PERMIT UNIT:		

H1. MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.	H3. CANCER BURDEN: Click here to enter text.	H4. CB DATE: Click here to enter a date.
H5: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: Click here to enter text.	H8. HIC DATE: Click here to enter a date.

SCAQMD BACT Determination

Source Type:	Major/LAER
Application No.:	516708
Equipment Category:	I.C. Engine - Emergency, Compression Ignition
Equipment Subcategory:	PM Filter
Date:	**December 10, 2015**

1. EQUIPMENT INFORMATION

A. MANUFACTURER: Cummins	B. MODEL: QSK50-g4
C. DESCRIPTION: Diesel fuel, 16 cylinders, turbocharged and aftercooled,	
D. FUNCTION: Drives an emergency electricity generator	
E. SIZE/DIMENSIONS/CAPACITY: 2220 BHP	

COMBUSTION SOURCES

F. MAXIMUM HEAT INPUT: Gross heat input in btu per hour at the higher heating value of the fuel

G. BURNER INFORMATION

TYPE	INDIVIDUAL HEAT INPUT	NUMBER
Make and model of burner	Rated heat input of single burner, in btu/hr	Number of burners
Enter additional burner types, as needed, add extra rows		

H. PRIMARY FUEL: DIESEL	I. OTHER FUEL: Supplementary or standby fuels

J. OPERATING SCHEDULE: <1 HRS/DAY 1 DAYS/WEEK 26 WKS/YR

K. EQUIPMENT INFORMATION COMMENTS: Diesel particulate filter installed

2. COMPANY INFORMATION

A. COMPANY: Los Angeles County Sheriff's Department	B. FAC ID: 068181
C. ADDRESS: 28380 The Old Road CITY: Saugus STATE: CA ZIP: 91350	D. NAICS CODE: Click "NAICS" for link
E. CONTACT PERSON: Daniel Maloney	F. TITLE: Crafts Operations Manager
G. PHONE NO.: 661-295-8025	H. EMAIL: E-mail address of contact person

3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: PO NO PC
C. SCAQMD ENGINEER: Roy Olivares	
D. PERMIT INFORMATION: PC ISSUANCE DATE: Click here to enter a date. P/O NO.:G15795 PO ISSUANCE DATE: 11/15/2011	
E. START-UP DATE: 11/15/2011	
F. OPERATIONAL TIME: Intermittent--for engine readiness test. Limited to 200 hrs/year which includes no more than 50 hours/year and 4.2 hour/month for maintenance and testing.	

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections ($\%O_2$, $\%CO_2$, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOx+VOC	SOx	CO	PM OR PM_{10}	INORGANIC
BACT Limit		4.8 g/bhp-hr		2.6 g/bhp-hr	0.15 g/bhp-hr	
Averaging Time						
Correction						

B. OTHER BACT REQUIREMENTS: The filter was required to reduce toxic risk from diesel particulate emissions, but also reduces PM10, VOC and CO.
C. BASIS OF THE BACT/LAER DETERMINATION: Acheived in Practice
D. EMISSION INFORMATION COMMENTS: Compliance with rule 404 and Rule 1470. Engine meets applicable Tier 2 BACT limits.

5. CONTROL TECHNOLOGY

A. MANUFACTURER: Johnson Matthey	B. MODEL: CRT(+)12-C-BIEO-CS-24-RT

C. DESCRIPTION: Diesel Particulate Filter with CRTDM diagnostic module, data logging and alarm system to automatically shut down engine or switch it to power de-rating when backpressure exceeds setting specified by manufacturer. CARB certified.

D. SIZE/DIMENSIONS/CAPACITY: An appropriate size parameter such as rated heat input, usable volume, rated filter efficiency, and/or one more characteristic dimensions.

E. CONTROL EQUIPMENT PERMIT INFORMATION:

APPLICATION NO. Click here to enter text. PC ISSUANCE DATE: Click here to enter a date.
PO NO.: Click here to enter text. PO ISSUANCE DATE: Click here to enter a date.

F. REQUIRED CONTROL EFFICIENCIES: Minimum efficiencies of the system control equipment as required by permit, or the most stringent rule requirement. The control or destruction efficiency is determined across the control device (e.g. inlet-outlet). Collection or capture efficiency is based at each point of contaminant collection in the system. Enter each contaminant that applies. Add rows as needed.

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NOx	___%	___%	___%
SOx	___%	___%	___%
CO	___%	___%	___%
PM	___%	85%	___%
PM_{10}	___%	___%	___%
Inorganic	___%	___%	___%

G. CONTROL TECHNOLOGY COMMENTS Permit condition to regenerate PM filter whenever warning signal is received from alarm system. For regeneration run engine until exhaust temp exceeds 464 Deg. F and normal backpressure reading. Engine exhaust temp at inlet to PM filter ≥ 464 Deg. F except during cold engine start-up.

6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: Source test or other method that was used to demonstrate compliance

B. DATE(S) OF SOURCE TEST: An appropriate size parameter such as rated product throughput, usable volume, and/or one more characteristic dimensions.

C. COLLECTION EFFICIENCY METHOD: The method used to determine collection efficiency of the system (e.g., EPA Method 204, mass balance), if applicable. A brief description of the collection efficiency test may be included if there is no applicable method (e.g., OVA measurements, smoke tests)

D. COLLECTION EFFICIENCY PARAMETERS: The quantitative parameters used to verify the method or procedures in Section 6(C). Examples include static pressure measurements, anemometer measurements, and mass balance results.

E. SOURCE TEST/PERFORMANCE DATA: Enter source test results for each criteria contaminant or precursor (mass emissions, concentrations or efficiencies) if they differ from the requirements previously listed. As previously requested in Section 4, identify any corrections or averaging times

F. TEST OPERATING PARAMETERS AND CONDITIONS: List any important operating conditions maintained during the source test or normal operations. Examples include, but may not be limited to, pressure differentials across control devices, feed rates, firing rates, temperatures, flow rates, or other parameters used to evaluate the level of operation of the equipment during the test or operations that may affect emissions from the equipment.

G. TEST METHODS (SPECIFY AGENCY): Identify the primary source test methods used and identify the agency (e.g., CARB Method 425).
H. MONITORING AND TESTING REQUIREMENTS: Every six months inspect integrity of PM filter and if necessary replaceInclude any monitoring or testing requirements and their frequency that will be enforced to maintain emission levels reported for the BACT Determination.
I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: Click here to enter text.	B. CCAT: Click here to enter text.	C. APPLICATION TYPE CODE: Click here to enter text.	
D. RECLAIM FAC? YES ☐ NO ☐	E. TITLE V FAC: YES ☐ NO ☐	F. SOURCE TEST ID(S): Click here to enter text.	
G. SCAQMD SOURCE SPECIFIC RULES: Click here to enter text.			
H. HEALTH RISK FOR PERMIT UNIT:			
H1. MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.	H3. CANCER BURDEN: Click here to enter text.	H4. CB DATE: Click here to enter a date.
H5: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: Click here to enter text.	H8. HIC DATE: Click here to enter a date.

SCAQMD BACT Determination

Source Type:	Major/LAER
Application No.:	538706
Equipment Category:	Flare
Equipment Subcategory:	Oil and Gas Operations
Date:	**December 10, 2015**

1. EQUIPMENT INFORMATION

A. MANUFACTURER: Flare Industries/Bekaert CEB	B. MODEL: CEB 800
C. DESCRIPTION: Enclosed ground flare with Clean Enclosed Burner	
D. FUNCTION: Process gas disposal	
E. SIZE/DIMENSIONS/CAPACITY: 24'H x 7'-9"L x 7'-9"W	
COMBUSTION SOURCES	
F. MAXIMUM HEAT INPUT: 27 MMBtu/hr	
G. BURNER INFORMATION	

TYPE	INDIVIDUAL HEAT INPUT	NUMBER
NIT mesh knitted metal fiber enclosed burner	Rated heat input of single burner, in btu/hr	1
Enter additional burner types, as needed, add extra rows		

H. PRIMARY FUEL: Process gas from Oil and Gas Operations	I. OTHER FUEL: natural gas
J. OPERATING SCHEDULE: 24 HRS/DAY 7 DAYS/WEEK 52 WKS/YR	
K. EQUIPMENT INFORMATION COMMENTS: Continuous pilot burner with thermocouple for flame detection. Propane storage provides fuel for pilot burner.	

2. COMPANY INFORMATION

A. COMPANY: Linn Operating, Inc.	B. FAC ID: 151532
C. ADDRESS: Brea-Olinda Oilfield, 2000 Tonner Canyon CITY: Brea STATE: CA ZIP: 92821	D. NAICS CODE: Click "NAICS" for link
E. CONTACT PERSON: Vince VanDelden	F. TITLE: EH&S Representative
G. PHONE NO.: 714-257-1604	H. EMAIL: wandelden@linnenergy.com

3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: NEW CONSTRUCTION
C. SCAQMD ENGINEER: Maria Vibal	
D. PERMIT INFORMATION: PC ISSUANCE DATE: 1/8/13 P/O NO.:G34773 PO ISSUANCE DATE: 2/24/2015	
E. START-UP DATE: 3/25/2013	
F. OPERATIONAL TIME: The flare will be operational at all times for disposal of process gas from Oil and Gas Operations at the site.	

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: All at 3% O_2, one hour averaging time.

	VOC	NOX	SOX	CO	PM OR PM_{10}	INORGANIC
BACT Limit	10 ppmv	15 ppmv		10 ppmv		
Averaging Time						
Correction						

B. OTHER BACT REQUIREMENTS: Concise description of the BACT requirements for each regulated contaminant from the equipment, other than the requirements list in Section 4(A).

C. BASIS OF THE BACT/LAER DETERMINATION: Acheived in Practice

D. EMISSION INFORMATION COMMENTS: Similar flare model CEB 500, 17 MMBtu/hr operating at Oil and Gas operations in Santa Barbara APCD has been included in CARB BACT Clearinghouse with same emission limits.

5. CONTROL TECHNOLOGY

A. MANUFACTURER: Manufacturer of the equipment	B. MODEL: Model name and number

C. DESCRIPTION: Additional description of the operation and functions of the control equipment.

D. SIZE/DIMENSIONS/CAPACITY: An appropriate size parameter such as rated heat input, usable volume, rated filter efficiency, and/or one more characteristic dimensions.

E. CONTROL EQUIPMENT PERMIT INFORMATION:

APPLICATION NO. Click here to enter text. PC ISSUANCE DATE: Click here to enter a date.
PO NO.: Click here to enter text. PO ISSUANCE DATE: Click here to enter a date.

F. REQUIRED CONTROL EFFICIENCIES: Minimum efficiencies of the system control equipment as required by permit, or the most stringent rule requirement. The control or destruction efficiency is determined across the control device (e.g. inlet-outlet). Collection or capture efficiency is based at each point of contaminant collection in the system. Enter each contaminant that applies. Add rows as needed.

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NOx	___%	___%	___%
SOx	___%	___%	___%
CO	___%	___%	___%
PM	___%	___ %	___%
PM_{10}	___%	___%	___%
Inorganic	___%	___%	___%

G. CONTROL TECHNOLOGY COMMENTS Enter comments for additional information regarding Control Technology.

6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: Source test or other method that was used to demonstrate compliance

B. DATE(S) OF SOURCE TEST: 3/25-26/13 & 4/19/13

C. COLLECTION EFFICIENCY METHOD: The method used to determine collection efficiency of the system (e.g., EPA Method 204, mass balance), if applicable. A brief description of the collection efficiency test may be included if there is no applicable method (e.g., OVA measurements, smoke tests)

D. COLLECTION EFFICIENCY PARAMETERS: 99.9+% destruction for VOC and BTEX

E. SOURCE TEST/PERFORMANCE DATA: NOx= 9.87ppmvd; CO=6.15ppmvd; VOC=3.93ppmvd, all at 3% O2

F. TEST OPERATING PARAMETERS AND CONDITIONS: Fired on process gas @ approx. 21.73 MMBtu/hr

G. TEST METHODS (SPECIFY AGENCY): ASTM D-1945 & D-3588; SCAQMD 25.3, 10.1, 100.1, 307, 5.1, 4.1, 2.1; CARB 410

H. MONITORING AND TESTING REQUIREMENTS: Include any monitoring or testing requirements and their frequency that will be enforced to maintain emission levels reported for the BACT Determination.

I. DEMONSTRATION OF COMPLIANCE COMMENTS: on.

7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: Click here to enter text.	B. CCAT: Click here to enter text.	C. APPLICATION TYPE CODE: Click here to enter text.
D. RECLAIM FAC? YES ☐ NO ☐	E. TITLE V FAC: YES ☐ NO ☐	F. SOURCE TEST ID(S): Click here to enter text.
G. SCAQMD SOURCE SPECIFIC RULES: Click here to enter text.		
H. HEALTH RISK FOR PERMIT UNIT:		

H1. MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.	H3. CANCER BURDEN: Click here to enter text.	H4. CB DATE: Click here to enter a date.
H5: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: Click here to enter text.	H8. HIC DATE: Click here to enter a date.

SCAQMD BACT Determination

Source Type:	Major/LAER
Application No.:	558397
Equipment Category:	I.C. Engine - Emergency, Compression Ignition
Equipment Subcategory:	PM Filter
Date:	**December 10, 2015**

1. EQUIPMENT INFORMATION

A. MANUFACTURER: Cummins	B. MODEL: QSX15-G9
C. DESCRIPTION: Diesel fuel, six cylinders, turbocharged and aftercooled,	
D. FUNCTION: Drives an emergency electricity generator	
E. SIZE/DIMENSIONS/CAPACITY: 755 BHP	
COMBUSTION SOURCES	
F. MAXIMUM HEAT INPUT: Gross heat input in btu per hour at the higher heating value of the fuel	
G. BURNER INFORMATION	

TYPE	INDIVIDUAL HEAT INPUT	NUMBER
Make and model of burner	Rated heat input of single burner, in btu/hr	Number of burners
Enter additional burner types, as needed, add extra rows		

H. PRIMARY FUEL: DIESEL	I. OTHER FUEL: Supplementary or standby fuels
J. OPERATING SCHEDULE: <1 HRS/DAY 1 DAYS/WEEK 26 WKS/YR	
K. EQUIPMENT INFORMATION COMMENTS: Diesel particulate filter installed	

2. COMPANY INFORMATION

A. COMPANY: University of Southern California	B. FAC ID: 800265
C. ADDRESS: McClintock W 34th Childs Street CITY: Lost Angeles STATE: CA ZIP: 90089	D. NAICS CODE: Click "NAICS" for link
E. CONTACT PERSON: Angel Burgos	F. TITLE: Environmental Manager
G. PHONE NO.: 626-318-7475	H. EMAIL: aburgos@usc.edu

3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: PO NO PC
C. SCAQMD ENGINEER: Ken Coats (Laird)	
D. PERMIT INFORMATION: PC ISSUANCE DATE: Click here to enter a date. P/O NO.:G30438 PO ISSUANCE DATE: 3/21/2014	
E. START-UP DATE: 3/21/2014	
F. OPERATIONAL TIME: Intermittent--for engine readiness test. Limited to 200 hrs/year which includes no more than 50 hours/year and 4.2 hour/month for maintenance and testing.	

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections ($\%O_2$, $\%CO_2$, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOx+VOC	SOx	CO	PM OR PM_{10}	INORGANIC
BACT Limit		3 g/bhp-hr		2.6 g/bhp-hr	0.15 g/bhp-hr	
Averaging Time						
Correction						

B. OTHER BACT REQUIREMENTS: The filter was required to reduce toxic risk from diesel particulate emissions, but also reduces PM10, VOC and CO.
C. BASIS OF THE BACT/LAER DETERMINATION: Acheived in Practice
D. EMISSION INFORMATION COMMENTS: Compliance with rule 404 and Rule 1470. Engine meets applicable Tier 2 BACT limits.

5. CONTROL TECHNOLOGY

A. MANUFACTURER: Rypos	B. MODEL: RH-410-L

C. DESCRIPTION: Diesel Particulate Filter with hiback data logging and alarm system to automatically shut down engine or switch it to power de-rating when backpressure exceeds setting specified by manufacturer. CARB certified.

D. SIZE/DIMENSIONS/CAPACITY: An appropriate size parameter such as rated heat input, usable volume, rated filter efficiency, and/or one more characteristic dimensions.

E. CONTROL EQUIPMENT PERMIT INFORMATION:

APPLICATION NO. Click here to enter text. PC ISSUANCE DATE: Click here to enter a date.
PO NO.: Click here to enter text. PO ISSUANCE DATE: Click here to enter a date.

F. REQUIRED CONTROL EFFICIENCIES: Minimum efficiencies of the system control equipment as required by permit, or the most stringent rule requirement. The control or destruction efficiency is determined across the control device (e.g. inlet-outlet). Collection or capture efficiency is based at each point of contaminant collection in the system. Enter each contaminant that applies. Add rows as needed.

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NOx	___%	___%	___%
SOx	___%	___%	___%
CO	___%	___%	___%
PM	___%	85%	___%
PM_{10}	___%	___%	___%
Inorganic	___%	___%	___%

G. CONTROL TECHNOLOGY COMMENTS Permit condition to regenerate PM filter after every 24 cold engine start-ups or HiBack alarm signal, whichever occurs first. For regeneration run engine until exhaust temp exceeds 572 Deg. F and normal backpressure reading. Engine exhaust temp at inlet to PM filter ≥ 572 Deg. F except during cold engine start-up, not to exceed 10 minutes.

6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: Source test or other method that was used to demonstrate compliance

B. DATE(S) OF SOURCE TEST: An appropriate size parameter such as rated product throughput, usable volume, and/or one more characteristic dimensions.

C. COLLECTION EFFICIENCY METHOD: The method used to determine collection efficiency of the system (e.g., EPA Method 204, mass balance), if applicable. A brief description of the collection efficiency test may be included if there is no applicable method (e.g., OVA measurements, smoke tests)

D. COLLECTION EFFICIENCY PARAMETERS: The quantitative parameters used to verify the method or procedures in Section 6(C). Examples include static pressure measurements, anemometer measurements, and mass balance results.

E. SOURCE TEST/PERFORMANCE DATA: Enter source test results for each criteria contaminant or precursor (mass emissions, concentrations or efficiencies) if they differ from the requirements previously listed. As previously requested in Section 4, identify any corrections or averaging times

F. TEST OPERATING PARAMETERS AND CONDITIONS: List any important operating conditions maintained during the source test or normal operations. Examples include, but may not be limited to, pressure differentials across control devices, feed rates, firing rates, temperatures, flow rates, or other parameters used to evaluate the level of operation of the equipment during the test or operations that may affect emissions from the equipment.
G. TEST METHODS (SPECIFY AGENCY): Identify the primary source test methods used and identify the agency (e.g., CARB Method 425).
H. MONITORING AND TESTING REQUIREMENTS: Every 5000 hours inspect integrity of PM filter and if necessary replaceInclude any monitoring or testing requirements and their frequency that will be enforced to maintain emission levels reported for the BACT Determination.
I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: Click here to enter text.	B. CCAT: Click here to enter text.	C. APPLICATION TYPE CODE: Click here to enter text.
D. RECLAIM FAC? YES ☐ NO ☐	E. TITLE V FAC: YES ☐ NO ☐	F. SOURCE TEST ID(S): Click here to enter text.
G. SCAQMD SOURCE SPECIFIC RULES: Click here to enter text.		
H. HEALTH RISK FOR PERMIT UNIT:		

H1. MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.	H3. CANCER BURDEN: Click here to enter text.	H4. CB DATE: Click here to enter a date.
H5: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: Click here to enter text.	H8. HIC DATE: Click here to enter a date.