



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

January 6, 2015

Mr. R. Scott Bevans
Vice President – California Operations
Quemetco, Inc.
720 South Seventh Avenue
City of Industry, CA 91746

Subject: Minor Revision (A/N 486783) to Title V Permit for Quemetco, Inc. (ID 8547)

Dear Mr. Bevans:

Enclosed are the revised Title Page, Table of Contents, and Section I of your RECLAIM/Title V Facility Permit for Quemetco, Inc., Facility ID 8547, located at 720 South Seventh Avenue, City of Industry, CA 91746. The revised sections reflect the changes as shown below.

Section I: PLANS AND SCHEDULES

Application No.	Plan/Description
486783	Rule 1110.2 Inspection and Monitoring Plan for I.C. Engines

This proposed minor permit revision was submitted to the EPA for 45-day review on October 29, 2014. No comments were received from the EPA.

Please review the attached sections carefully. Insert the enclosed sections into your RECLAIM/Title V Facility Permit and discard the earlier versions.

The operation of your facility is bound by the conditions and/or requirements stated in the facility Permit to Operate. If you determine that there are administrative errors, or if you have any questions concerning changes to your permit, please contact Mr. Marco A. Polo, Air Quality Engineer, at (909) 396-2633 within 30 days of the receipt of your permit.

Sincerely,

Andrew Y. Lee, P.E.
Senior Manager
Engineering and Compliance

AYL:CDT:TGL:MAP

Enclosures

cc: Gerardo Rios, EPA Region IX
Compliance
Central FileApplication 543446



FACILITY PERMIT TO OPERATE

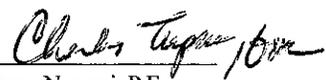
**QUEMETCO INC
720 S 7TH AVE
CITY OF INDUSTRY, CA 91746**

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.
EXECUTIVE OFFICER

By 
Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance



**FACILITY PERMIT TO OPERATE
QUEMETCO INC**

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A	Facility Information	8	05/04/2012
B	RECLAIM Annual Emission Allocation	24	01/01/2015
C	Facility Plot Plan	TO BE DEVELOPED	
D	Facility Description and Equipment Specific Conditions	24	09/19/2013
E	Administrative Conditions	10	05/04/2012
F	RECLAIM Monitoring and Source Testing Requirements	8	05/04/2012
G	Recordkeeping and Reporting Requirements for RECLAIM Sources	9	05/04/2012
H	Permit To Construct and Temporary Permit to Operate	28	09/19/2013
I	Compliance Plans & Schedules	9	01/06/2015
J	Air Toxics	3	08/28/2013
K	Title V Administration	3	05/04/2012
Appendix			
A	NOx and SOx Emitting Equipment Exempt From Written Permit Pursuant to Rule 219	4	05/04/2012
B	Rule Emission Limits	2	05/04/2012



FACILITY PERMIT TO OPERATE QUEMETCO INC

SECTION I: PLANS AND SCHEDULES

This section lists all plans approved by AQMD for the purposes of meeting the requirements of applicable AQMD rules specified below. The operator shall comply with all conditions specified in the approval of these plans, with the following exceptions:

- a. The operator does not have to comply with NOx or SOx emission limits from rules identified in Table 1 or Table 2 of Rule 2001(j) which become effective after December 31, 1993.
- b. The operator does not have to comply with NOx or SOx emission limits from rules identified in Table 1 or Table 2 of Rule 2001(j) after the facility has received final certification of all monitoring and reporting requirements specified in Section F and Section G.

Documents pertaining to the plan applications listed below are available for public review at AQMD Headquarters. Any changes to plan applications will require permit modification in accordance with Title V permit revision procedures.

List of approved plans:

Application	Rule
299744	1407
436957	3003
486783	1110.2
488109	1420
530545	1420.1

NOTE: This section does not list compliance schedules pursuant to the requirements of Regulation XXX - Title V Permits; Rule 3004(a)(10)(C). For equipment subject to a variance, order for abatement, or alternative operating condition granted pursuant to Rule 518.2, equipment specific conditions are added to the equipment in Section D or H of the permit.



**FACILITY PERMIT TO OPERATE
QUEMETCO INC**

Rule 1110.2 Inspection and Monitoring (I & M) Plan Approval

RULE 1110.2 EQUIPMENT

Device D165:

Internal Combustion Engine, Rich Burn, Natural Gas, Cummins, Model GTA50G1, with A/F Ratio Control, Gill, AF 120/220, and Catalytic Converter, DCL, 2-DC74.5-X, with Catalytic Afterburner, Aftercooler, Turbocharger, 1150 H.P.

CONDITIONS

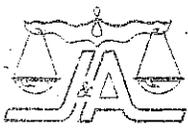
1. The operator shall conduct the operation of the storage equipment in compliance with all data and specifications submitted with the plan application under which this approval is granted.

Quemetco, Inc.
(Facility ID: 008547)

Rule 1110.2 Inspection & Monitoring (I & M) Plan

Prepared By: Justice & Associates
Issued: July 30, 2008

Job Number: 11502



Justice & Associates

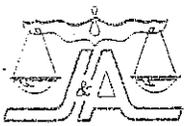
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SUMMARY

The purpose of this plan is to assure continued emissions compliance between biennial source tests pursuant to AQMD Rule 1110.2.



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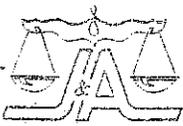
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VII.	MONTHLY OPERATIONS LOG.....	8

Attachment	-	Description
"A"	-	AFRC Troubleshooting Section
"B"	-	Daily and Monthly Sample Recordkeeping Form



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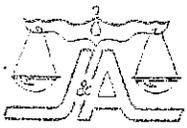
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I. ENGINE POPULATION

Engine #1:	Cummins, Model GTA50G1, 1,150 HP
Fuel Type:	Natural Gas, Rich Burn
Application:	Drives Electrical Generator
Emission Controls:	AFRC (Gill Instruments, Model AF120) NSCR (Johnson Matthey QX C40-8)
Alarms:	AFRC Malfunction Light & Alarm Loss of O ₂ Sensor Signal Catalyst Over-Temperature



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II. PROCEDURE FOR DETERMINING AFRC O₂ TARGET SETPOINTS

Using a portable emissions analyzer, each engine will be monitored to determine the AFRC O₂ sensor setpoints that correspond to the emissions limits as set forth in the SCAQMD permit. The actual operating load range of the engine must be set so as to not exceed the range of the AFRC that controls it (i.e. minimum, midpoint and maximum engine loads).

Enter the O₂ sensor setpoints as determined from the monitoring. Then, operate the engine throughout its normal operating range and verify emissions compliance using a portable emissions analyzer. Engine emissions must comply with permit limits at all operating load ranges.

Additionally, O₂ target setpoints must be re-established using the aforementioned procedure in the following circumstances:

- Within 24 hours of an O₂ sensor replacement;
- Within 100 to 150 hours after an O₂ sensor replacement; and
- Whenever indicated by periodic monitoring with a portable emissions analyzer.



III. PROCEDURE FOR VERIFYING PROPER OPERATION OF AFRC

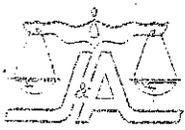
Ascertain that the O₂ sensor output does not deviate from the minimum/maximum values as determined from the engine setpoints.

Ascertain that the AFRC fuel control valve is operating within the control limits as indicated on the AFRC annunciator panel display.

Pre/post catalyst temperatures greater than 1,250 °F can indicate a problem with AFRC. Note: An engine performance problem can also cause this problem.

Take note of any catalyst temperature trend deviations such as inlet/outlet temperature differential.

Ascertain from the AFRC annunciator panel whether any alarms or malfunctions are present.



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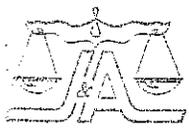
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IV. PROCEDURE AND SCHEDULE FOR PERIODIC EMISSIONS CHECKS BY A PORTABLE NO_x, CO AND O₂ ANALYZER

All engines will be checked for NO_x, CO and O₂ emissions at the following intervals:

- Once a week or every 150 hours of engine operation whichever occurs later;
- If an engine is in compliance for three consecutive emissions checks without any adjustments to the O₂ target setpoints, then the engine may be checked monthly or every 750 hours of engine operation whichever occurs later;
- No control system maintenance or tuning may be conducted within 72 hours of the emissions check unless it is an unscheduled repair;
- The portable analyzer shall be calibrated, maintained and operated in accordance with the procedures set forth in AQMD Rule 1110.2; and
- The portable analyzer tests required by this plan shall only be conducted by a person who has completed an appropriate District-approved training program in the operation of portable analyzers and has received a certification issued by the District.



V. DAILY MONITORING AND RECORDKEEPING

The following parameters are to be monitored inspected and documented at least daily:

- Engine load or fuel flow rate;
- O₂ sensor setpoints and output;
- Catalyst inlet and outlet temperature to determine ΔT ;
- Engine elapsed time (hour meter);
- Engine elapsed time since last emissions check with portable analyzer;
- AFRC system faults or alarms that affect emissions; and
- Daily monitoring and recordkeeping may be done in person or by remote monitoring.



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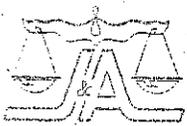
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VI. PREVENTIVE AND CORRECTIVE MAINTENANCE

- Visually inspect engine and AFRC alarm panels and document vital signs and any related alarms on the daily log;
- Implement the AFRC troubleshooting checklist and flow chart (Please refer to Attachment "A") to rectify potential problems;
- Breakdowns resulting in rule violations require correction and emissions compliance verification within 24 hours;
- Out-of-range parameters require correction and emissions compliance verification within 48 hours;
- Continued engine operation beyond the aforementioned time limits is prohibited;
- Check engine for:
 - Uneven exhaust sounds;
 - Vacuum leaks;
 - Unusual noises or vibrations; and
 - Fluid levels.
- Verify catalyst reaches operating temperature when operating;
- Inspect exhaust system for any leaks;
- Perform catalyst maintenance at intervals specified by the manufacturer;
- Verify emissions compliance after any emissions altering, repairs or adjustments;
- Perform engine preventive maintenance at manufacturer's recommended intervals;

- Perform engine scheduled maintenance based on the manufacturer's recommended intervals including but not limited to:
 - Engine oil and filter;
 - Engine air and crankcase filters;
 - Engine valve lash;
 - Ignition timing;
 - Engine sparkplug replacement; and
 - Exhaust gas oxygen sensor replacement.

- Before any change in I & M plan operations can be implemented, a revised I & M plan shall be submitted to and approved by the Executive Officer. The operator shall apply for a plan revision prior to any change in emission limits or control equipment.



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VII. MONTHLY OPERATIONS LOG

- Engine elapsed time (hour meter);
- Type of fuel;
- Fuel consumption;
- Cumulative hours of operation since last source test; and
- Please refer to Attachment "B" for a sample of the daily and monthly recordkeeping form.

ATTACHMENT "A"

AFRC TROUBLESHOOTING SECTION

To provide a digital input into the system to enable closed loop mode please use the following –

- Pin 33 Grounded: Inhibits control – valve moves to start-up position
- Pin 33 Open Circuit: Enables closed loop control
Closed loop control will not begin until the
CloseOnStartPeriod has elapsed AND the enable line is
open circuit.

7. **Troubleshooting**

Power

- If the left hand LED on the AF120 is not flashing when the power to the module is turned on ensure 12-24V power and ground are connected.
- Verify with a voltmeter to check power at module, 12 – 24V is required at Pin 1 and Pin 11. If there are still problems please contact Gill Instruments for application engineers assistance.

Oxygen Sensor

- If the oxygen sensor is not able to reach the stable, controlled operating temperature after moving sensor around to find optimum position, use the data logging facility in the AFPcom software to capture 10 – 20 seconds of module operation and email to ignition@gill.co.uk with your contact information. An application engineer will contact you to assist.

ATTACHMENT "B"

**DAILY AND MONTHLY SAMPLE
RECORDKEEPING FORM**

Daily Monitoring and Recordkeeping Requirements

Rule 1110.2 I&M Plan

Engine: Cummins, Model GTA50G1, 1150 hp
 Application Number: 468847

Date	Month	Day	Year

AFRC Faults/Alarms
1
2

Requirement	Value	Units
Engine Load		kW
AFRC Set Points	High	
	Normal	
	Low	
Actual AFRC Set Points	High	
	Normal	
	Low	
Catalyst Inlet Temperature		
Catalyst Outlet Temperature		
Delta T		

Control System Faults/Alarms
1
2

Record	Value
Hrs-Start	
Hrs-End	
Hrs-Total	
Hrs-Cumulative*	

*Total since last emission check. Next emissions check due in a week or 150 operating hours, whichever is later.

Monthly Monitoring and Recordkeeping Requirements

Rule 1110.2 I&M Plan

Engine: Cummins, Model GTA50G1, 1150 hp
 Application Number: 468847

Date	Month

Requirement	Value	Units
Type of Fuel Burned	Natural Gas	scf
Fuel Consumption	Start	
	End	
	Total	
Catalyst Inlet Temperature		
Catalyst Outlet Temperature		
Delta T		

Record	Value
Hrs-Start	
Hrs-End	
Hrs-Total	
Hrs-Cumulative*	

*Total since last source test. Next source test is due in two years or 8,760 operating hours, whichever occurs first.

Rule 1110.2 Plan (Addendum)

Rule 1110.2 additional information required:

Please fill out the check boxes and the missing information highlighted in yellow:

Thank You

Marco A Polo
(909) 396-2633

Air-To-Fuel Ratio Controller (AFRC) and Oxygen Sensor:

AFRC Make: Gill AFRC Model No.: AF120

AFRC Setting:

Variable Set Points at Variable Loads Single Set Point

Oxygen Sensor Type:

Unheated Narrow Band (EGO) Heated Narrow Band (HEGO)

Universal Wideband (UEGO) Other (specify): WEGO/EGO LSU 4.2

Optimum O2 Sensor Range Setting: 0.8 to 1.7 Millivolts / Lambda

Oxygen Sensor Location (relative to catalyst):

Upstream Only Upstream and Downstream

Continuous Emissions Monitoring System (CEMS):

NOx CO None

Other Parameters (if any): (for example, differential pressure - ΔP):

Parameter(s): N/A
Compliance Limit (s): N/A

Satisfied	Deficient	N/A	Requirements	Additional Info/Explanation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(24) For any plan revision the operator shall file a new compliance plan.	Addressed in Section VI, page 7 of I&M Plan submitted July, 2008.