



South Coast Air Quality Management District

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

August 4, 2009

Mr. Gerardo Rios- Chief, Permits Office
U.S. EPA, Region IX- Air-3
75 Hawthorne St.
San Francisco, CA 94105

Dear Mr. Rios:

Southern Cal Gas (ID 800128) has proposed to revise their Title V permit by adding Oxidation Catalysts on devices D6, D7, D8, D9, & D10 required by recently amended district rule 1110.2 and approval of Rule 1110.2 compliance plan. This proposed revision is considered as a "de minimus permit revision" to their facility permit. Attached for your review is the permit evaluation and the draft Title V permit for the proposed permit revision.

If you have any questions or wish to provide comments regarding this project, please call Hemang Desai at (909) 396-2596.

Very truly yours,

Michael D. Mills

Michael D. Mills
Senior Manager
General Commercial & Energy Team

Electronic Transmittal

FACILITY PERMIT TO OPERATE SO CAL GAS CO (EIS USE)

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COMBUSTION					
INTERNAL COMBUSTION ENGINE, NON-EMERGENCY, K-2, NATURAL GAS, INGERSOLL-RAND, MODEL 412 KVS, WITH STAGED COMBUSTION, 2000 HP WITH A/N:	D6	C211	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 1110.2.6-3-2005] ; CO: 250 PPMV NATURAL GAS (5) [RULE 1110.2.2-1-2008] ; PM: (9) [RULE 404,2-7-1986] VOC: 30 PPMV NATURAL GAS (5) [RULE 1110.2.2-1-2008] ; VOC: 250 PPMV (5) [RULE 1110.2.6-3-2005]	A99.1, A99.2, D28.3, D28.4, H23.16
CO OXIDATION CATALYST, PLATINUM BASED	C211	D6			
INTERNAL COMBUSTION ENGINE, NON-EMERGENCY, K-5, NATURAL GAS, INGERSOLL-RAND, MODEL 412 KVS, WITH STAGED COMBUSTION, 2000 HP WITH A/N:	D7	C214	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 1110.2.6-3-2005] ; CO: 250 PPMV NATURAL GAS (5) [RULE 1110.2.2-1-2008] ; PM: (9) [RULE 404,2-7-1986] VOC: 30 PPMV NATURAL GAS (5) [RULE 1110.2.2-1-2008] ; VOC: 250 PPMV (5) [RULE 1110.2.6-3-2005]	A99.1, A99.2, D28.3, D28.4, H23.16
CO OXIDATION CATALYST, PLATINUM BASED	C214	D7			
INTERNAL COMBUSTION ENGINE, NON-EMERGENCY, K-1, NATURAL GAS, INGERSOLL-RAND, MODEL 412 KVS, WITH STAGED COMBUSTION, 2000 HP WITH A/N:	D8	C210	NOX: MAJOR SOURCE**	CO: 250 PPMV (5) [RULE 1110.2.2-1-2008] ; CO: 2000 PPMV NATURAL GAS (5) [RULE 1110.2.6-3-2005] ; PM: (9) [RULE 404,2-7-1986]	A99.1, A99.2, D28.3, D28.4, H23.16

- | | |
|---|---|
| <p>* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits</p> | <p>(2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements</p> |
|---|---|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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Process 1 : INTERNAL COMBUSTION					
CO OXIDATION CATALYST, PLATINUM BASED	C210	D8		VOC: 30 PPMV NATURAL GAS (5) [RULE 1110.2.6-3-2005] ; VOC: 250 PPMV (5) [RULE 1110.2.2-4-2008]	
INTERNAL COMBUSTION ENGINE, NON-EMERGENCY, K-3, NATURAL GAS, INGERSOLL-RAND, MODEL 412 KVS, WITH STAGED COMBUSTION, 2000 HP WITH A/N:	D9	C212	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 1110.2.6-3-2005] ; CO: 250 PPMV NATURAL GAS (5) [RULE 1110.2.2-4-2008] ; PM: (9) [RULE 404.2-7-1986] VOC: 250 (5) [RULE 1110.2.6-3-2005;RULE 1110.2.2-1-2008] ; VOC: 30 PPMV (5) [RULE 1110.2.6-3-2005;RULE 1110.2.2-4-2008]	A99.1, A99.2, D28.3, D28.4, H23.16
CO OXIDATION CATALYST, PLATINUM BASED	C212	D9			
INTERNAL COMBUSTION ENGINE, NON-EMERGENCY, K-4, NATURAL GAS, INGERSOLL-RAND, MODEL 412 KVS, WITH STAGED COMBUSTION, 2000 HP WITH A/N:	D10	C213	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 1110.2.6-3-2005] ; CO: 250 PPMV NATURAL GAS (5) [RULE 1110.2.2-4-2008] ; PM: (9) [RULE 404.2-7-1986]	A99.1, A99.2, D28.3, D28.4, H23.16

* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE SO CAL GAS CO (EIS USE)

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COMBUSTION					
CO OXIDATION CATALYST, PLATINUM BASED	C213	D10		VOC: 30 PPMV NATURAL GAS (5) [RULE 1110.2,2-1-2008] ; VOC: 250 PPMV (5) [RULE 1110.2,6-1-2005]	

- * (1)(1A)(1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5)(5A)(5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2)(2A)(2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See Section J for NESHAP/MACT requirements
- ** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

**FACILITY PERMIT TO OPERATE
SO CAL GAS CO (EIS USE)**

SECTION H: DEVICE ID INDEX

**The following sub-section provides an index
to the devices that make up the facility
description sorted by device ID.**

**FACILITY PERMIT TO OPERATE
SO CAL GAS CO (EIS USE)**

SECTION H: DEVICE ID INDEX

Device Index For Section H			
Device ID	Section H Page No.	Process	System
D6	1	1	0
D7	1	1	0
D8	1	1	0
D9	2	1	0
D10	2	1	0
C210	2	1	0
C211	1	1	0
C212	2	1	0
C213	3	1	0
C214	1	1	0

FACILITY PERMIT TO OPERATE SO CAL GAS CO (EIS USE)

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

F14.2 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

This condition shall become effective on or after June 1, 2004.

[RULE 431.2, 9-15-2000]

PROCESS CONDITIONS

P13.1 All devices under this process are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1149

[RULE 1149, 7-14-1995]

[Processes subject to this condition : 2]

DEVICE CONDITIONS

A. Emission Limits

FACILITY PERMIT TO OPERATE SO CAL GAS CO (EIS USE)

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A99.1 The 250 PPM CO emission limit(s) shall not apply until July 1, 2010.

[RULE 1110.2, 2-1-2008]

[Devices subject to this condition : D6, D7, D8, D9, D10]

A99.2 The 30 PPM VOC emission limit(s) shall not apply until July 1, 2010.

[RULE 1110.2, 2-1-2008]

[Devices subject to this condition : D6, D7, D8, D9, D10]

D. Monitoring/Testing Requirements

D28.3 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted to determine the CO emissions at the outlet.

The test shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up.

The test shall be conducted to demonstrate compliance with Rule 1110.2.

The District shall be notified of the date and time of the test at least 15 days prior to the test.

[RULE 1110.2, 2-1-2008]

[Devices subject to this condition : D6, D7, D8, D9, D10]

**FACILITY PERMIT TO OPERATE
 SO CAL GAS CO (EIS USE)**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D28.4 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted to determine the VOC emissions at the outlet.

The test shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up.

The District shall be notified of the date and time of the test at least 15 days prior to the test.

The test shall be conducted to demonstrate compliance with Rule 1110.2.

[RULE 1110.2, 2-1-2008]

[Devices subject to this condition : D6, D7, D8, D9, D10]

H. Applicable Rules

H23.16 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
CO	District Rule	1110.2
VOC	District Rule	1110.2

whether or not explicitly stated on this permit, including, but not limited to, reporting, recordkeeping, monitoring, source testing, and other criteria defined in approved Rule 1110.2 (f)(1)(D) inspection and monitoring plan

[RULE 1110.2, 2-1-2008]

[Devices subject to this condition : D6, D7, D8, D9, D10]

FACILITY PERMIT TO OPERATE SO CAL GAS CO (EIS USE)

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 NO_x or SO_x 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 NO_x or SO_x 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
220168	1146
261047	1146
268425	1134
273594	1146.1
424168	1415
485461	1110.2

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.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES
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APPLICATION NO.

ENGINEER
HD

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1
DATE
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CHECK BY

PERMIT TO CONSTRUCT

COMPANY NAME SOUTHERN CAL GAS CO

MAILING ADDRESS 12801 TAMPA AVE.
NORTHRIDGE, CA 91326

EQUIPMENT ADDRESS SAME AS ABOVE

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
PROCESS 1 INTERNAL COMBUSTION ENGINE					
INTERNAL COMBUSTION ENGINE, UNIT k-1, INGERSOLL-RAND, MODEL NO. 412KVS, WITH STAGED COMBUSTION, 2,000 BHP.	D8			REFER TO DRAFT PERMIT	REFER TO DRAFT PERMIT
COMPRESSOR WITH OXIDATION CATALYST, PLATINUM BASED, A/N 500000	C210				

HISTORY

Southern Cal Gas filed a/no. 500000 as modification to install oxidation catalyst to comply with emissions limit requirements of Table II in section (d)(1)(B) district rule 1110.2 for Carbon Monoxide and Reactive Organic Gases effective July 1, 2010. Those limits are 250 PPMV for CO and 30 PPMV for ROG. NOx limits are not applicable since facility is under RECLAIM program.

There are 5 identical engines subject to this section of rule 1110.2 for which the applicant has filed applications.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE DIVISION

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PROCESS DESCRIPTION

The engine powers a compressor that is used at the facility to inject pipeline quality natural gas into underground reservoir storage and to release it on demand into the supply pipelines.

EMISSIONS CALCULATIONS:

When the previous permit was evaluated, the permitting engineer calculated CO & ROG emissions based on NOx emissions. In those calculations, CO is calculated to be lower than 250 PPMV. Since CO is now an attainment pollutant, the emissions will be calculated based on 250 PPMV for data entry purposes with NSR exemptions. It is to be understood that there is no CO emission increase from the modification.

The operating schedule is 24 hours/day, 7 days/week, & 52 weeks/year.

ROG:

30 PPMV = 0.135 gm/bhp-hr based on 33% thermal efficiency

CO:

250 PPMV = 1.97 gm/bhp-hr based on 33% thermal efficiency

ROG Emissions:

$0.135 \text{ gm/bhp-hr} \times 2000 \text{ bhp} \times 1 \text{ lb/453.6 gm} = 0.6 \text{ lb/hr} \times 24 \text{ hrs/day} \times 7 \text{ days/week} \times 52 \text{ weeks/yr} = 5,200 \text{ lb/yr}$

CO Emissions:

$1.97 \text{ gm/bhp-hr} \times 2000 \text{ bhp} \times 1 \text{ lb/453.6 gm} = 8.69 \text{ lb/hr} \times 24 \text{ hrs/day} \times 7 \text{ days/week} \times 52 \text{ weeks/yr} = 75,881 \text{ lb/yr}$

RULES EVALUATION:

- Rule 212: Since there is no emissions increase due to this modification, the provisions of this rule do not apply.
- Rule 401: No visible emissions in violation of this rule are expected.
- Rule 402: No nuisance complaints are expected.
- RULE 404: Compliance with this rule is expected.
- RULE 431.1: The facility plan to use natural gas which has less 16 ppm of Sulfur compounds in the engine. Therefore, compliance with this rule expected.
- RULE 1110.2: The proposed catalyst will comply with emissions limits of Table II by July 1, 2010. Emissions testing will be required to comply with limits. The facility has submitted an Inspection and Monitoring plan (A/no. 485461) which will further satisfy rule requirements.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

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Reg. XIII: There is no emission increase and therefore, the provisions of this regulation do not apply.

Rule 1401: There is no emission increase from the proposed modification and therefore, the provisions of this regulation do not apply.

REG. XX: For this facility, only NOx is applicable for RECLAIM which this engine is in compliance with installation of CEMS.

REG. XXX: The facility is under Title V ^{of} program. The changes are considered as De Minimus Permit revisions.

CONCLUSIONS / RECOMMENDATIONS:

Based on above analysis, the equipment is expected to comply with the applicable Rules and Regulations of the SCAQMD and the latest BACT requirements. Therefore, it is recommended that conditional Permit to construct be issued after a 45-day EPA Review.