



South Coast Air Quality Management District

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

June 27, 2012

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

Dear Mr. Rios:

Subject: Southern California Gas Company, Honor Rancho (ID 5973) – Title V Permit Revision (Application No. 534164)

Southern California Gas Company has proposed to revise their Title V permit by installing a new abrasive blasting cabinet. This is a natural gas and crude oil storage facility (SIC 4922) located at 25205 W Rye Canyon Rd., Valencia, CA 91355. This proposed permit revision is considered a “de minimis significant permit revision” to their Title V permit. Attached for your review is the permit evaluation and proposed Section D. With your receipt of the proposed Section D today, we will note that the EPA 45-day review period begins on June 27, 2012.

If you have any questions or need additional information regarding the proposed permit revision, please call Chris Perri at (909) 396-2696.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Brian L. Yeh', is written over a horizontal line.

Brian L. Yeh
Senior Manager
Chemical, Mechanical & Public Services

BLY:AYL:JTY:cgp

cc: Karen McInnis, So Cal Gas, kmcinnis@semprautilities.com

Attachments



South Coast
Air Quality Management District

Engineering Division
Application Processing & Calculations

PAGE
1

PAGES
6

APPL NO.
533941, 537013

DATE
6/26/2012

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**PERMIT TO CONSTRUCT/OPERATE
EVALUATION**

APPLICANT:

Southern California Gas Company
25205 W Rye Canyon Rd
Valencia, CA 91355

EQUIPMENT LOCATION:

25205 W Rye Canyon Rd
Valencia, CA 91355

EQUIPMENT DESCRIPTION:

Section D of the Facility Permit, ID# 5973

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
PROCESS 11: MISCELLANEOUS					
ABRASIVE BLASTING, CABINET, EMPIRE ABRASIVE PRO-FINISH 6060 PRC-9, HT: 3'8", WIDTH: 5'0", LENGTH: 5'0", VENTED TO DUST COLLECTOR, WITH ABRASIVE BLASTING NOZZLE, 3/16 INCH INSIDE DIAMETER A/N: 533941	D117	D118		PM: (9) [RULE 404]; PM: (9) [RULE 405]	E440.1
DUST COLLECTOR, EMPIRE BLASTING MODEL CDC-9, 2 HP BLOWER, WITH 2 CARTRIDGES, 452 SQ FT TOTAL FILTER AREA A/N: 537013	D118				



**South Coast
Air Quality Management District**

Engineering Division
Application Processing & Calculations

PAGE 2	PAGES 6
APPL NO. 533941, 537013	DATE 6/26/2012
PROCESSED BY CGP	CHECKED BY

BACKGROUND:

This application for an abrasive blasting cabinet was submitted on 3/1/12 as Class I. The facility was informed on 4/20/12 that a separate application was required for the dust collector (due to AQMD policy to permit control equipment separately if it is equipped with its own blower). The application for the dust collector was submitted on 5/1/12 as Class I. The following table summarizes the application information:

A/N	Equipment	BCat/Cat	Fee
533941	Abrasive blasting cabinet	000284/44	2,123.92
537013	Dust Collector	44	2,123.92
534164	Title V De Minimis Revision	555009	1,747.19
Total			5,995.03

There are currently no outstanding compliance issues with this facility, and only 1 compliance notice has been issued in the last 2 years. Notice to Comply D00023 was issued on 8/18/10 for failure to report quarterly emissions of process units and R219 exempt equipment.

PROCESS DESCRIPTION:

The abrasive blasting cabinet is approximately 5 feet by 5 feet by 4 feet high, and has one spray nozzle. It is used to clean various metal parts. Particulates from the cabinet are controlled with the use of 2 internal dust cartridges, which are cleaned through the use of a manual push button pulse jet. The applicant has specified that the blasting material varies, but will not include silica.

Process Information

Abrasive Material:	various (not including silica)
Emission factor:	0.013 lb/lb (Met Unit Memo 8/13/80)
Density:	160 lb/cu ft
Nozzle diameter	3/16 in.
Air pressure	80 psig
Cabinet inside dimensions	5'-0" W. X 5'-0" L. X 3'-8" H.
Exhaust Blower Flow:	2hp/900 cfm
Material Throughput	218.182 lbs/hr
Filter area:	452 sq. ft.
No. of cartridges	2
Filter cleaning method:	manual pulse jet
Operating Schedule:	24 hrs; 7 days; 52 weeks



**South Coast
Air Quality Management District**

Engineering Division
Application Processing & Calculations

PAGE
3

PAGES
6

APPL NO.
533941, 537013

DATE
6/26/2012

PROCESSED BY
CGP

CHECKED BY

EMISSIONS:

Particulate matter is the only pollutant emitted by the abrasive blasting operation. The following calculation is used to estimate the emissions:

$$R1 = EF \times FR$$

$$R2 = R1 (1 - \eta)$$

where:

- R1 = uncontrolled PM emissions (lbs/hr)
- R2 = controlled PM emissions (lbs/hr)
- EF = emission factor (lb PM/lb abrasive)
- FR = flow rate of abrasive (lbs/hr)
- η = control efficiency

PM10 is assumed to be 50% of the total PM emissions. Control efficiency is assumed to be 99.9%.

$$R1 = 0.013 \text{ lbs/lb} \times 218.182 \text{ lbs/hr} = 2.84 \text{ lbs/hr}$$

$$R2 = 2.84 (1 - 0.999) = 0.0028$$

$$PM10 = 0.0028 \times 0.5 = 0.0014$$

Following is a summary of emissions:

Pollutant	Controlled Emissions		Uncontrolled Emissions		30 Day Average Emissions	Annual Emissions
	Lbs/hr	lbs/day	Lbs/hr	Lbs/day	lbs/day	lbs/yr
PM10	0.0014	0.03	1.42	34.08	0.03	12

Notes:

Maximum daily emissions and 30 day average emissions are based on 24 hrs/day operation. Annual emissions based on 365 days/yr operation.

EVALUATION:

Rule 219 – Standards for Approving Permits

The equipment is not located within 1000 feet of a school, (the closest school is Trinity Classical Academy located approximately 0.53 miles north of the site). The emissions are below the threshold of this rule, and there are no toxics. Therefore, no public notice is required.



South Coast
Air Quality Management District

Engineering Division
Application Processing & Calculations

PAGE

4

PAGES

6

APPL NO.

533941, 537013

DATE

6/26/2012

PROCESSED BY

CGP

CHECKED BY

Rule 401 – Visible Emissions

The blasting cabinet is equipped with baffled air inlet ports, and the air/cloth ratio is below the recommended maximum, therefore, there is little potential for visible emissions from the proper operation of this equipment.

Rule 402 – Nuisance

Nuisance problems are not expected during normal operation.

Rule 404 – Particulate Matter Concentration

For a flow rate of 900 cfm, this rule limits the particulate concentration to 0.196 gr/cf. Compliance is expected based on the following calculation:

$$(0.0014 \text{ lbs/hr} \times 7000 \text{ gr/lb}) / 900 \text{ cfm} \times 60 \text{ min/hr} = 0.0002 \text{ gr/scf}$$

Rule 405 – Particulate Matter Weight

For a process weight of 218 lbs/hr, this rule limits the particulate emissions to 0.99 lbs/hr. Compliance is expected based on the calculated controlled PM emission rate of 0.0028 lbs/hr.

RULE 1140 – Abrasive Blasting

This rule limits the visible emissions from abrasive blasting operations. The abrasive blasting cabinet is totally enclosed and is vented through the cartridge dust collectors, which are appropriately sized for the unit. The cabinet is also equipped with baffled air ports. Therefore, with proper operation, the unit is expected to comply with the visible emissions limits of this rule.

REGULATION XIII – New Source Review

Emissions of all pollutants are below 0.5 lbs/day, therefore no BACT, modeling, or offsets are required.

RULE 2012 – RECLAIM

The facility is subject to Reclaim. However, the abrasive blasting cabinet is not a source of NOx or SOx pollutants, so there are no monitoring requirements under RECLAIM for this equipment.

Regulation XXX – Title V

The Southern California Gas Honor Rancho facility is currently subject to the Title V requirements. The addition of the abrasive blasting cabinet is considered a De-Minimis Significant Permit Revision as defined in Rule 3000. As a de minimis significant revision, EPA is afforded the opportunity to review and comment on the project within a 45 day review period. Since the initial Title V permit was issued on September 3, 2007 there have been 3 permit revisions (none were de minimis significant). There was 1 minor revision to add 3 way catalysts to 5 ICES, 1 administrative revision to add an air/fuel ratio controller to 2 ICES, and 1 administrative revision to issue final Permits to Operate for various equipment at the site. The facility has applied to renew their Title V permit (A/N 534075).



**South Coast
Air Quality Management District**

Engineering Division
Application Processing & Calculations

PAGE 5	PAGES 6
APPL NO. 533941, 537013	DATE 6/26/2012
PROCESSED BY CGP	CHECKED BY

RECOMMENDATION:

At the end of the 45 day EPA review period, issue a Permit to Construct/Permit to Operate and include this equipment in Section D of the facility permit subject to the conditions in the following section.

CONDITIONS:

E440.1

The operator shall operate and maintain this equipment according to the following specifications:

Abrasive blasting operations shall not be performed unless the abrasive blasting equipment is vented only to the cartridge dust collector which is in full use at all times.

Dust collected in the dust collector shall be discharged only into enclosed containers.

A mechanical gauge shall be maintained so as to indicate, in inches water column, the static pressure differential across the filters. The filters shall be cleaned whenever the pressure exceeds 4" W.C.

Silica type abrasives shall not be used in this equipment.

[Rule 1304 – BACT, Rule 1140]



**South Coast
Air Quality Management District**

Engineering Division
Application Processing & Calculations

PAGE
6

APPL NO.
533941, 537013
PROCESSED BY
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PAGES
6

DATE
6/26/2012
CHECKED BY

Appendix A

Blasting Cabinet and Control Design Checks

1. Air to cloth ratio

Blower cfm/filter area = 900/452 = 2:1

2. No. of air changes

a. cabinet volume (V) = W X L X H
 = 5 X 5 X 3.7
 = 92.5 ft³
 b. no. of air changes (A/C) = 900 cfm / 92.5 ft³
 = 9.73 air changes/min

APC and AB Cabinet guideline review:

	Recommended	Actual	Comply?
Baffled air ports	Y	Y	Y
A/C Ratio, shaker type cleaning	8:1	2:1	Y
Air changes/min	10-20	9.73	Y
Bag shaker for cloth area > 400ft ²	power	power	Y
Closed container	Y	Y	Y
Pressure gauge	Y	Y	Y

FACILITY PERMIT TO OPERATE SO CAL GAS CO

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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 10: R-219 EQUIPMENT SUBJECT TO SOURCE-SPECIFIC RULES					
RULE 219 EXEMPT EQUIPMENT, (N) (5)(A), GAS DEHYDRATION TRAINS A & B- OIL AND GAS PRODUCTION	E105				
RULE 219 EXEMPT EQUIPMENT, (N) (5)(A), GAS DEHYDRATION TRAINS A & B- CRUDE OIL STABILIZATION	E106				
Process 11: MISCELLANEOUS					
ABRASIVE BLASTING, CABINET, EMPIRE ABRASIVE PRO FINISH 6060 PRC-9, VENTED TO DUST COLLECTOR, WIDTH: 5 FT; HEIGHT: 3 FT 8 IN; LENGTH: 5 FT WITH A/N. ABRASIVE BLASTING NOZZLE, 3/16 INCH INSIDE DIAMETER	D117	C118			E440.1
DUST COLLECTOR, EMPIRE ABRASIVE MODEL CDC-9, 2 HP BLOWER, WITH 2 CARTRIDGES, 452 SQ FT FILTER AREA A/N:	C118	D117			E440.1

- (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

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

[Devices subject to this condition : D1, D2, D3, D9, D10]

E144.1 The operator shall vent this equipment, during filling, only to the vessel from which it is being filled.

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 402, 5-7-1976]**]

[Devices subject to this condition : D102]

E440.1 The operator shall operate and maintain this equipment according to the following specifications:

Silica type abrasives shall not be used in this equipment

A mechanical gauge shall be maintained so as to indicate, in inches water column, the static pressure differential across the filters. The filters shall be cleaned whenever the pressure exceeds 4" W.C.

Dust collected in the dust collector shall be discharged only into enclosed containers

Abrasive blasting operations shall not be performed unless the abrasive blasting equipment is vented only to the cartridge dust collector which is in full use at all times

[Devices subject to this condition : D117, C118]

E448.1 The operator shall comply with the following requirements:

criteria defined in approved district rule 1110.2 (f)(1)(D) inspection and maintenance plan.