



## **HEARING BOARD STAFF REPORT**

**TYPE: REGULAR VARIANCE**

**CASE NO: 2015-01-R**

**DATE: February 4, 2015**

### **1.0 GENERAL INFORMATION:**

- 1.1 **PETITIONER NAME:** Southern California Gas Company (SoCalGas)
- 1.2 **EQUIPMENT LOCATION:** Petitioner operates the equipment described in the Petition at 1171 More Ranch Road, Goleta, CA
- 1.3 **PERMIT NUMBER(S):** Part 70/Permit to Operate 9584
- 1.4 **FACILITY NAME/ID:** La Goleta, FID 01734

- 1.5 **FACILITY DESCRIPTION:** The La Goleta Stationary Source (SSID # 5019) is solely owned and operated by Southern California Gas Company (SoCalGas), a subsidiary of Sempra Energy, with the company regional headquarters located in Los Angeles, California. The La Goleta facility (FID 1734) includes 21 underground gas storage wells and a dehydration plant consisting of a tank farm, odorization equipment, methanol storage tank, and external combustion equipment including flares, as well as a number of gas-fired internal combustion (IC) engines driving natural gas compressors and pumps. The La Goleta facility is permitted to withdraw natural gas from its underground storage at the rate of 680 million standard cubic feet per day (MMscf/day), while its hydrocarbon liquid (condensate, dry) production is restricted to 125,000 gallons per year.

- 2.0 **REASON FOR THE VARIANCE REQUEST:** The facility's Main Unit #2, a 650-bhp natural gas-fueled reciprocating engine and integral compressor, has been out of service since January 23, 2014 due to an engine and compressor overhaul.

In November of 2014, the Petitioner completed the engine overhaul and was ready to begin the post-overhaul "break in" period, which, as noted in Variance 29-14-N, was to be less than 150 hours of intermittent engine operation. Starting on November 14, 2014, the engine contractor was on site and started the engine five different times, accumulating no more than one hour of total run time. There was a mechanical failure during these runs, which forced shutdown to repair a stuck valve. Since that valve replacement, the engine has been unable to run as the facility was in continuous winter gas withdrawal mode. There was one week at the end of December where it was possible to inject gas underground, however this time period was too short to bring the engine contractor back on site.

Main Unit #2 cannot operate in withdrawal mode as it is an injection engine and could interrupt the gas supply needs of all the Petitioner's customers. The end of the withdrawal period is beyond the Petitioner's reasonable control due to various reasons such as seasonal temperatures, customer demand and supply. In order to return this engine to service it is necessary to operate it under "no load" and "light load" conditions (less than 500 bhp) to check, adjust, tune-up and break-in the engine/compressor following overhaul work. Once

the engine is complete with the break in period, the catalysts and full compliance with the permit and rule requirements will be met. Further, the variance request does not request any scenario where there are multiple break in periods interspersed with normal operations using the controls. A full year for the variance request is asked for in the unlikely event that it takes that long to get the engine fixed.

**3.0 BACKGROUND:** Variance Order 29-14-N was approved by a Hearing Board Member on November 12, 2014 and is set to expire on February 9, 2014. This has prompted the need for continued enforcement relief through this variance request. The engine overhaul has been completed and the break-in period will commence as soon as the withdrawal period ends pending any other unforeseen delays. The Petitioner hopes to have Main Unit #2 back to full operation in time for the injection season during the warmer months.

**4.0 PERMITTING HISTORY:** Main Unit #2 was in operation before the District existed and was originally permitted in the 1980's.

**5.0 COMPLIANCE HISTORY:** Main Unit #2 has historically operated in compliance with District rules and regulations. This is the first time the unit was in need of an overhaul.

**6.0 REGULATORY ANALYSIS:** The following permit conditions of Part 70 Permit to Operate 9584-R4 and rule requirements are applicable to the variance request:

- **Condition 9.C.1(a) (Emission Limits)**
  - See section 7.0
- **Condition 9.C.1(b)(iv) (I&M Plan)**
  - The permittee shall operate in accordance with the District-approved IC Engine Inspection and Maintenance Plan (I&M Plan) and any subsequent District approved updates.
- **Condition 9.C.1(b)(v) (Catalyst Operation)**
  - The Catalyst shall operate at all times the engine is operating to reduce exhaust emissions of NO<sub>x</sub>, ROC, and CO from the engine.
- **Condition 9.C.1(b)(vi)(A) (AFRC)**
  - The Air Fuel Ratio Controller (AFRC) shall be operated at all times in accordance with the manufacturer's recommendations.
- **Rule 333 E.1(a) requiring control of emissions using the AFRC.**
  - Emission concentrations, corrected for oxygen, from any such engine shall not exceed the permitted limits.

**7.0 EMISSIONS ANALYSIS:** The following is an estimate of the excess criteria pollutants and toxic air contaminants that will occur due to the granting of this variance. These excess emissions were calculated by determining what would be emitted with the catalyst in use versus what would be emitted without the catalyst. All emissions associated with the break-in period for Main Unit #2 will be tracked and reported by the Petitioner.

- Excess Emissions in pounds:
  - NO<sub>x</sub> 2,156
  - CO 3,593
  - ROC 29

- Excess Hazardous Air Pollutants in pounds:
  - Benzene 1.47
  - Acetaldehyde 0.90
  - Formaldehyde 19.86
  - Methanol 0.73

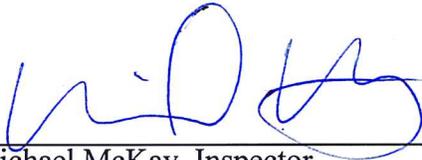
8.0 **RESERVED**

9.0 **OTHER FACTORS:** none

10.0 **DISTRICT RECOMMENDATION:** The APCD supports the Petitioner's request and recommends the granting of a regular variance for Southern California Gas listed in the attached draft variance order.

11.0 **ATTACHMENTS:**

- Attachment 1 – Draft Regular Variance Order 2015-01-R



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Michael McKay, Inspector  
Compliance Division

01/21/15

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Date