air pollution control district
SANTA BARBARA COUNTY

HEARING BOARD STAFF REPORT

TYPE: **90-DAY VARIANCE**

CASE NO: **2020-13-N**

DATE: **June 3, 2020**

1.0 GENERAL INFORMATION:

1.1 PETITIONER COMPANY NAME: Southern California Gas Company

1.2 EQUIPMENT LOCATION: 1171 More Ranch Road, Goleta, California

1.3 PERMIT NUMBER(S): Part 70 Permit to Operate 9584-R6

1.4 FACILITY NAME/ID: La Goleta/FID 1734

1.5 FACILITY DESCRIPTION: The La Goleta facility includes 21 underground gas storage wells and a dehydration plant consisting of a tank farm, odorization equipment, methanol storage tanks, and external combustion equipment including flares, as well as several gas-fired internal combustion engines driving natural gas compressors and pumps.

2.0 REASON FOR THE VARIANCE REQUEST: The facility's Main Unit #5 (APCD Device ID 001202), a 650 bhp natural gas fueled reciprocating engine and integral compressor, has been out of service since August 18, 2018, due to an engine and compressor overhaul. The Petitioner would like to return the equipment to service. In order to do that, the engine must be operated without controls to prevent fouling of the catalyst. As a result, the Petitioner will be in violation of District Rules 333.E.1.a, 206, and Part 70 Permit to Operate 9584-R6, Conditions 9.C.1(a), 9.C.1(b)(iv), 9.C.1(b)(v), 9.C.1(b)(viii)(A) and 9.C.1(b)(viii)(C).

3.0 BACKGROUND: In order to return the Petitioner's Main Unit #5 (APCD Device ID 001202) to service, the engine must operate under no load and light load conditions (<500 bhp) to check, adjust, tune-up and break-in the engine/compressor following the overhaul work. The engine's exhaust will be routed through a muffler; however, the catalytic converter element will be removed to prevent oil fouling. The Air/Fuel Ratio Controller (AFRC) is not capable of controlling throughout this broad range of horsepower (0-650 bhp) and will need to be turned off until after the engine is tuned, adjusted and operated at or near its normal load and temperatures. The post-overhaul break-in period is expected to be completed within 150 hours of intermittent engine operation. Upon completion, the catalyst will be installed, the AFRC will be placed back in service and the engine will be operated at normal loads while the Petitioner's mobile emissions lab inspects and adjusts the engine as required to meet emission concentration limits.

4.0 PERMITTING HISTORY: Part 70 Permit to Operate 9584-R6 was issued on May 18, 2018 and is due for reevaluation June 2021.

5.0 COMPLIANCE HISTORY: There are no enforcement actions regarding the Petitioner's Main Unit #5 (APCD Device ID 001202) in the past three (3) years.

6.0 REGULATORY ANALYSIS: The following permit conditions and rule requirements are applicable to the variance request:

- **Part 70 Permit to Operate 9584-R6, Condition 9.C.1(a) (Emission Limits)**
  - *Mass emissions from the IC engines with Plants IDs #2 through #8 shall not exceed the limits listed in the Tables 5.1-3 and 5.1-4. Allowable pollutant emission concentrations for the same engines are listed below. Compliance with these limits shall be assessed through compliance with monitoring (includes source testing requirements, the ICE I&M Plan, and the CAM Plan), recordkeeping and reporting conditions listed below in this permit. Mass emissions from the flare relief system listed above shall not exceed the limits listed in Tables 5.1-3 and 5.1-4.*
- **Part 70 Permit to Operate 9584-R6, Condition 9.C.1(b)(iv) (Operational Restrictions)**
  - *Inspection and Maintenance Plan (I & M Plan) – The permittee shall operate in accordance with district-approved, Rule 333.F required IC engine Inspection and Maintenance Plan and any subsequent District-approved updates.*
- **Part 70 Permit to Operate 9584-R6, Condition 9.C.1(b)(v)**
  - *Catalyst Operation – Engines #2 through #8 above shall be equipped with a three-way non-selective catalytic reduction (NSCR) device on each engine to reduce hazardous air pollutants (HAP) as well as NOx, ROC, and CO from these engines. The catalysts shall operate at all times the engines are operating.*
- **Part 70 Permit to Operate 9584-R6, Condition 9.C.1(b)(viii)(A)**
  - *Air-Fuel Ratio Controllers – Each Air-Fuel Ratio Controller (AFRC) shall be operated, calibrated and maintained at all times in accordance with manufacturer's recommendations.*
- **Part 70 Permit to Operate 9584-R6, Condition 9.C.1(b)(viii)(C)**
  - *Engine/Catalyst Operation: The performance standards of each NOx emission control device shall be maintained consistent with the IC Engine I & M Plan.*
- **District Rule 333.E.1.a (Requirements – Emission Limits)**
  - *The emission concentrations, corrected for oxygen from any such engine shall not exceed the following limits:*

Pollutant	***Limit (ppmv at 15% Oxygen)***
NOx	*50*
ROC	*250*
CO	*4,500*

7.0 **EMISSIONS ANALYSIS**: The excess Emissions will be calculated using the AP-42 factors for an uncontrolled engine of this type, size and fuel category. The excess emissions associated with this Variance for the worst-case scenario are expected to be no more than 2,131 lbs NOx.

8.0 ***RESERVED***

9.0 **OTHER FACTORS**: None

10.0 **DISTRICT RECOMMENDATION**: The District supports the Petitioner's variance request.

11.0 ATTACHMENTS:

- Attachment 1 – Draft 90-Day Variance Order 2020-13-N

Aimee Long, Air Quality Specialist
Compliance Division

May 22, 2020
Date