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April 26, 2019

Mr. Matthew Lee
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

RE: Playa del Rey (Facility ID #8582) AB2588 Health Risk Assessment

Dear Mr. Lee:

SoCalGas owns and operates the Playa del Rey Storage facility at 8141 Gulana Avenue in Playa del Rey, California within the South Coast Air Quality Management District (SCAQMD). The SCAQMD facility identification number (FID) is #008582. The Health Risk Assessment (HRA) prepared for the Playa del Rey facility pursuant to the Air Toxics "Hot Spots" Act (AB 2588) and SCAQMD Rule 1402 was approved by the SCAQMD on January 2, 2019. The HRA concludes that public notification thresholds and risk reduction thresholds would be exceeded based on 2015 operations of the facility. The SCAQMD letter dated January 2, 2019 directs the submittal of a Risk Reduction Plan (RRP) to the SCAQMD by May 1, 2019. The enclosed document with attachments serves as the RRP and is being submitted timely.

Should you have any questions regarding the enclosed submittal, please do not hesitate to contact me at (805) 681-8013 or kfickerson@semprautilities.com.

Sincerely,

A handwritten signature in blue ink that reads "Karin Fickerson".

Karin Fickerson
Air Quality Team Lead

Enclosure

cc: Annie Ho



AB2588 RISK REDUCTION PLAN

PREPARED FOR

PLAYA DEL REY STORAGE FIELD

(SCAQMD FID #008582)

8141 GULANA AVENUE
PLAYA DEL REY, CA 90293

APRIL 2019

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ATTACHMENT 3 SIGNED CERTIFICATION

1. Introduction

SoCalGas owns and operates the Playa del Rey Storage facility at 8141 Gulana Avenue in Playa del Rey, California within the South Coast Air Quality Management District (SCAQMD). The SCAQMD facility identification number (FID) is #008582. The Standard Industrial Code (SIC) of the facility is 4922 and North American Industry Classification System (NAICS) code of the facility is 486210.

The Health Risk Assessment (HRA) prepared for the Playa del Rey facility pursuant to the Air Toxics “Hot Spots” Act (AB 2588) and SCAQMD Rule 1402 was approved by the SCAQMD on January 2, 2019. The HRA concludes that public notification thresholds and risk reduction thresholds would be exceeded based on 2015 operations of the facility. The modeling conservatively assumed that the 26 times during the year where natural gas venting was conducted for about 30 minutes coincided with the meteorological conditions necessary for the dispersion to impact the area beyond the property boundary to the northwest of the facility during those same hours. However, because venting only occurred for about 13 hours, venting was unlikely to occur during these specific meteorological conditions and the likelihood that such a situation would have occurred is very low.

The SCAQMD letter dated January 2, 2019 directs the submittal of a Risk Reduction Plan (RRP) to the SCAQMD by May 1, 2019. This document serves as the RRP and is being submitted timely.

2. 2015 HRA Summary

As shown in the HRA prepared for 2015 operations, the non-cancer acute hazard index (HI) at the Point of Maximum Impact (PMI) receptor was concluded to exceed the public notification and risk reduction thresholds specified in Rule 1402. This non-cancer acute HI is primarily (98%) due to the blowdown vent stack (Source ID S32). The area where the Rule 1402 thresholds were concluded to be exceeded is part of the Ballona Wetlands Ecological Reserve owned by the State of California and maintained by the California Department of Fish and Wildlife (CFDW).

2.1. Anomalous Year

The volume of natural gas vented in 2015 appears to have been an anomaly (unusually high value) when compared to more recent years of operation. During the subsequent years (2016 and 2017), the volume of natural gas vented at the vent stack was substantially lower than in 2015. Specifically, the values were 0.68 MMscf in 2016 and 0.14 MMscf in 2017, respectively, as compared to 3.49 MMscf in 2015.

3. Change in Operations

Since the start of 2018, the facility no longer routes natural gas to the blowdown vent stack, S32, for routine natural gas venting for maintenance and the primary function of S32 is now for emergency station shutdown. Further, the facility has shifted its operational venting practices to permitted portable carbon canisters that are used at the specific site of venting. Specifically, the practice that is now in place is as follows: Prior to conducting natural gas venting activities, and if feasible, the facility depressurizes the system to a distribution line to reduce the volume of natural gas vented. Next, the process vent line/valve that will vent natural gas is routed to permitted portable carbon canisters. Use of the carbon canisters minimizes the emissions associated with natural gas venting. With this practice in place, the facility no longer uses S32 for routine natural gas venting and the primary function of S32 is now for emergency station shutdown.

3.1. Revised Risk Characterization

During 2018, the total volume of natural gas vented at locations throughout the facility (which would have been routed to the vent stack in prior years) was 0.067 MMscf. The associated benzene emissions were minimized with the use of carbon canisters. We have applied a 60% control of benzene emissions for the use of the carbon canisters. The 60% control efficiency is based on the lower end of the range provided in Table 7.1 of California Air Resources Board (CARB) documents for Emission Control Techniques (see snapshot provided below). Based on this CARB table, VOC with molecular weights between 50 and 150 Daltons would have an actual control efficiency of 60-95%. The molecular weight of benzene is 78 Daltons and the carbon control efficiency for benzene is anticipated to be 60-95%.

The resulting 2018 emissions were calculated to be a total of 0.06 pounds per year of benzene and maximum hourly benzene emissions of 0.04 pounds per hour as shown in Table 1 below. The

Table 7.1

Summary of recommended stream characteristics and efficiencies for regenerable carbon adsorption technique given by EPA [1989], EPA [1986] and EPA [1992].

Emission stream concentration	< 700 ppmv
Flow rate moisture	< 50%
Recommended temperature	< 150°F^a
Molecular weight of VOC	50-150 Daltons
Actual efficiency	60-95%^b

^aAt temperatures below 150°F, carbon adsorption works efficiently even if there are variations in the temperature.

^bdepending on the stream concentration.

updated Air Toxic Inventory Report (ATIR) is included in Attachment 1.

<p>Table 1 2018 NG Vented Benzene Emission Calculations</p>

Item	Value	Units
Total Gas Vented	6.74E-02	MMscf/yr
Max Hourly Gas Vented	4.59E-02	MMscf/hr
Benzene Emission Factor	2.27	lb/MMscf
Carbon Control Efficiency	60%	%
Total Controlled Benzene	0.06	lb/year
Max Hourly Controlled Benzene	0.04	lb/hr

The 2015 HRA was re-run with the following changes associated with 2018 emissions for natural gas venting: 1) Benzene emissions for S32 of zero; and 2) 0.04 pounds/hour and 0.06 pounds/year of benzene emissions modeled as a new point source (S35) located at the center of the lower level (367148 m E, 3759153 m N). The modeled parameters for the venting through the carbon canister are 50” high and 3” diameter with a minimal flow rate (1 meter per second) at ambient temperature (298 K). The peak acute HI at the new PMI was modeled to be less than 1.0. The complete modeling results are provided in Table 2 below. As shown in Table 2, the predicted acute HI for the 2015 HRA using the 2018 data to address Source ID S32 is below the risk reduction and public notification thresholds. Based on the 2018 change in operations and using the same modeling process and assumptions as the 2015 HRA, the Action Risk Levels were not met nor exceeded in the updated modeling. Furthermore, the change in operations has already been implemented. The updated HRA and associated modeling files are included in Attachment 2.

Table 2 Updated HRA Modeling Results			
Location	X-UTM (m)	Y-UTM (m)	Acute HI
PMI	367239	3758859	0.46
MEIR	367300	3758810	0.24
MEIW	367270	3758620	0.11

4. Future Risk Reduction Measures

The facility has proposed an additional, permanent risk reduction measure as a further enhancement: the project is titled “Blowdown Upgrade for Venting Control” and is a permanent operational change. The project will minimize natural gas venting by rerouting routine natural gas venting from the well group headers during maintenance activities to the distribution pipeline. The pressure will be reduced from transmission system pressure to approximately 40 psig. The remaining 40 psig will be connected to carbon adsorbers for venting. Two carbon adsorbers in series will be used.

Alternatively, if distribution cannot accept the natural gas due to lack of system demand, then the natural gas will be routed to the wet gas compressor(s) and then to transmission. The same carbon adsorbers would be used for venting. Each event of natural gas venting volume is recorded on a

Natural Gas Vented-Operator's Logsheet and retained onsite. The volume vented is calculated by using the length and diameter of the pipe with the start and end pressures.

An application for a Permit to Construct (PTC) for the new portable carbon adsorbers will be submitted to SCAQMD. The PTC application will propose permit conditions such that the risk reduction measures are permanent and enforceable per Rule 1402. The PTC application will also propose permit conditions for the use of carbon in the new rerouted process located at S35 and for routine natural gas venting to not be routed to S32.

These carbon adsorbers will be used at the center of lower facility. The dimensions are anticipated to be similar to the modeled parameters used for the 2018 modeling update. These parameters were venting through carbon canister that are 50" high and 3" diameter with a minimal flow rate (1 meter per second) at ambient temperature (298 K). The final parameters will be determined once the project is fully designed.

The following is the proposed schedule for implementing the proposed additional risk reduction measure as quickly as feasible.

- An application for a PTC for the new carbon adsorbers will be submitted to SCAQMD within 180 days of approval of this RRP.
- The project will be completed within 6 months of receipt of the PTC from SCAQMD.

The "Blowdown Upgrade for Venting Control" project may utilize the existing permitted carbon adsorbers and/or rented carbon adsorbers with a various location permit until the PTC is issued so that the project can be implemented as expeditiously as possible.

Although earlier the document discussed that changes in operations already reduced the acute HI from the facility to below the threshold of 1.0, based on the modeling conducted for 2018 operations, this additional proposed "Blowdown Upgrade for Venting Control" project will further reduce emissions and support maintaining the modeled acute HI from the facility to below the threshold of 1.0. This conclusion was reached by taking into consideration that the proposed project will be located at the same location and will likely have the same parameters as that modeled for the 2018 operations update.

5. Certification

The required certification of the RRP has been signed by the facility's Responsible Official and is included as Attachment 3.

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