

South Coast Air Quality Management District

Statement of Basis

Proposed Title V Renewal Permit

Facility Name:	LADWP Harbor Generating Station
Facility ID:	800170
SIC Code:	4911
Equipment Location:	161 N. Island Avenue Wilmington, CA 90744
Application #(s):	547004
Application Submittal Date(s):	02/01/2013
Permit Revision #:	varies depending on the section
Revision Date:	02/23/2013
Permit Section(s) Affected:	All sections (A-K, plus Appendices A and B)
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1. Introduction and Scope of Permit

Title V is a national operating permit program for air pollution sources. Facilities subject to Title V must obtain a Title V permit and comply with specific Title V procedures to modify the permit. Title V permits are issued in 5 year terms, after which the facility must apply to have the permit renewed. The facility has submitted the necessary information to renew their permit and has satisfied the requirements to obtain an application shield, which allows the continued operation of the facility under the terms and conditions of the existing permit until the permit renewal is approved.

The SCAQMD implements Title V through Regulation XXX – Title V Permits, adopted by the SCAQMD Governing Board in order to comply with EPA's requirement that local air permitting authorities develop a Title V program. Regulation XXX was developed with the participation of the public and affected facilities through a series of public workshops, working group meetings, public hearings and other meetings.

The Title V major source threshold for a particular pollutant depends on the attainment status of the pollutant. NO₂, CO, SO₂, and lead are in attainment with federal standards. The status for PM-10 is serious nonattainment. The status for ozone is currently extreme nonattainment.

A Title V renewal permit is proposed to be issued to cover the operations of LADWP Harbor Generating Station located at 161 N. Island Avenue, Wilmington, CA 90744. This facility is subject to Title V requirements because it is a major source of one or more criteria pollutants.

2. Facility Description

This is an existing facility that is in the business of producing electrical power. This facility operates five simple cycle General Electric (GE) LM6000 gas turbine generators and two combined cycle GE MS7000 gas turbine generators. The simple cycle generators have a total capacity of 237 MW while the combined cycle generators have a total capacity of 364 MW. The nominal plant-wide generating capacity is 601 MW. The gas turbines operate on natural gas primarily, and on low-sulfur fuel oil in emergency. Each of the generators is equipped with a selective catalytic reduction (SCR) system and an oxidation catalyst. The simple cycle gas turbines are subject to a NO_x emissions limit of 5 ppmv, CO of 6 ppmv, and VOC of 2 ppmv. The ammonia emissions from the SCRs for the simple cycle gas turbines are limited to 5 ppm. The combined cycle gas turbines are subject to a NO_x emissions limit of 7 ppmv and CO of 10 ppmv. The ammonia emissions from the SCRs for the combined cycle gas turbines are limited to 20 ppm when burning natural gas, and 5 ppm when burning fuel oil. The facility has auxiliary equipments that include an emergency diesel generator, three fuel oil storage tanks, two ammonia storage tanks with scrubbers, three waste oil water separators, two abrasive blasting devices, and other Rule 219 exempted equipments.

3. Construction and Permitting History

The facility was initially commissioned in the 1950s. The original equipment includes five boiler generators. Over the years the facility has replaced the boiler generators with gas turbine generators. The two combined cycle generators were installed in 1993 and the five simple cycle gas turbines were installed in 2002. An initial Title V permit was issued to the facility on January 5, 2001. The Title V permit was reissued on August 8, 2008. Since then there have been several subsequent minor revisions. In December 2010 a minor revision was made to change the make and model of the SCRs serving the five simple cycle gas turbine generators. In May 2012 a minor revision was made to allow change to the RECLAIM RTC withholding condition I296.

4. Regulatory Applicability Determinations

Applicable legal requirements for this facility are required to be identified in the Title V permit (for example, Section D, E, and H of the proposed Title V permit). Applicability determinations (i.e., determinations made by the District with respect to what legal requirements apply to a specific piece of equipment, process, or operation) can be found in the Engineering Evaluations.

The following table summarizes the main rules that apply to the major equipment at this site:

Equipment	SCAQMD Rules	EPA Rules
Gas turbines	218, 401, 402, 407, 409, 431.1, 475, NSR, RECLAIM	40 CFR60, 63, 64, 72
Emergency generator	401, 402, 431.2, 1470, NSR, RECLAIM	40 CFR60, 63

This facility is not a major source of HAPs and is therefore not subject to any MACT standards. The permit terms and conditions may be found in Section H of the Title V permit.

5. Monitoring and Operational Requirements

Applicable monitoring and operational requirements for the facility are identified in the Title V permit (for example, Section D, F, and J and Appendix B of the proposed Title V permit). Discussion of any applicable monitoring and operational requirements can be found in the Engineering Evaluations. Under RECLAIM, the gas turbines are required to maintain a CEMS for NOx emissions, and report daily mass emissions through the RTU. As part of the CEMS, the gas turbines are also required to be equipped with fuel flow meters. Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64 do not apply to the gas turbines because 1) the turbines use a continuous emissions monitoring system (CEMS) for NOx and another CEMS for CO [exempt by continuous compliance determination of section 64.2(b)(vi)], 2) there is no PM10 control equipment.

6. Permit Features

Permit Shield

A permit shield is an optional part of a Title V permit that gives the facility explicit protection from requirements that may be incorrectly specified in the permit. A permit shield is a provision in a permit that states that compliance with the conditions contained in the permit shall be deemed compliance with all identified regulatory requirements. To incorporate a permit shield into the Title V permit involves submission of applications for change of conditions for each equipment affected by the permit shield. Permit shields are addressed in Rule 3004 (c). This facility has not applied for a permit shield.

Streamlining Requirements

Some emission units may be subject to multiple requirements which are closely related or redundant. The conditions may be streamlined to simplify the permit conditions and compliance. Emission limits, work practice standards, and monitoring, recordkeeping, and reporting requirements may be streamlined. Compliance with a streamlined condition will be deemed compliance with the underlying requirements whether or not the emission unit is actually in compliance with the specific underlying requirement. This facility has not applied for any streamlined conditions.

7. Summary of Emissions and Health Risks

Criteria Pollutant Emissions (tons/year)

Annual Reported Emissions for Reporting Period 2012 (tons/year)

Pollutant ID	Pollutant Description	Annual Emissions
CO	Carbon Monoxide	0.904
NOX	Nitrogen Oxides	11.613
ROG	Reactive Organic Gases	1.302
SOX	Sulfur Oxides	0.322
TSP	Total Suspended Particulates	0.495

Toxic Air Contaminants Emissions (TAC)

Annual Reported Emissions for Reporting Period 2012 (lbs/year)

Pollutant ID	Pollutant Description	Annual Emissions
106990	1,3-Butadiene	0.547
7664417	Ammonia	9497.954
7440382	Arsenic	0.003
1332214	Asbestos	0.003
71432	Benzene	14.524
75434	Dichlorofluoromethane {Freon 12}	12.000
50000	Formaldehyde	860.820
7439921	Lead (inorganic)	0.000
91203	Naphthalene	1.583
1151	PAHs, total, with components not reported	1.095

Health Risk from Toxic Air Contaminants

The facility is subject to review by the Air Toxics Information and Assessment Act (AB2588). LA DWP Harbor Generating Station is an intermediate risk facility; that is, its priority score is 3.0 and falls in the range from 1 to 10. Intermediate risk facilities do not have to prepare a health risk assessment. Such facilities are subject to annual fees and toxic inventory updates every four years.

8. Compliance History

The facility has been subject to both self-reporting requirements and SCAQMD inspections. The facility has had 0 citizen complaints filed, 0 Notice to Comply issued, and 1 Notices of Violation issued in the last two calendar years. The notice of violation was issued in June 2012 because of the errors in the quarterly emission report. The facility is working to get this violation resolved.

9. Compliance Certification

By virtue of the Title V permit application and renewal of this permit, the reporting frequency for compliance certification for the facility shall be annual.

10. Comments

There are no comments at this time.