

# South Coast Air Quality Management District

## Statement of Basis

### Proposed Title V Renewal Permit

**Facility Name:** OLS Energy Chino  
**Facility ID:** 47781  
**SIC Code:** 4922  
**Equipment Location:** 5601 Eucalyptus Ave  
Chino, CA 91710

**Application #(s):** 527791  
**Application Submittal Date(s):** 09/29/11

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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 Title V permit for this facility expires on September 25, 2012. 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 AQMD implements Title V through Regulation XXX – Title V Permits, adopted by the AQMD 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. NO<sub>2</sub>, SO<sub>2</sub>, CO, and lead are in attainment with federal standards. The status for PM-10 is attainment at the federal level, but remains nonattainment at the state level. The status for ozone is currently extreme nonattainment. For the South Coast Air Basin (SOCAB) the threshold levels are as follows:

Pollutant	SOCAB Major Source Thresholds
VOC	10
NOx	10
SOx	100
CO	50
PM-10	70
Single HAP	10
Combination of HAPS	25

A Title V permit is proposed to be issued to cover the operations of OLS Energy Chino, located at 5601 Eucalyptus Ave., Chino, CA 91770. This facility is subject to Title V requirements because it is a major source of one or more criteria pollutants.

## 2. Facility Description

OLS Energy Chino is an existing facility which operates a cogeneration system consisting of a gas turbine and 2 steam boilers which are used to provide steam to the California Institute for Men (CIM), the prison facility nearby. The gas turbine also produces electricity for sale to Southern California Edison. The rated power output for the facility is about 30MW. The boilers are each rated at 31 mmbtu/hr heat input. There is also 1 emergency diesel engine, and 1 anhydrous ammonia storage tank at the facility.

The gas turbine is controlled with steam injection and is subject to a NOx BACT limit of 12 ppm. It is fired primarily on natural gas, but can use fuel oil in case of emergency.

The boilers are controlled with Coen low NOx burners and FGR. They are both subject to a CO BACT limit of 100 ppm and a NOx RECLAIM reporting factor of about 37 ppm.

## 3. Construction and Permitting History

The facility has been in operation since about 1988. The initial Title V permit was issued on January 5, 2001, and renewed on September 26, 2007. The original permit for the gas turbine has been modified twice – once in 1988 to account for ammonia injection during start up and shutdown (A/N 179989), and once in 2006 to allow for diesel fuel testing (A/N 417652). The boiler permits have been modified twice – once in 1990 to disallow fuel oil use (A/N's 223773 and 223766), and once in 2006 to allow maximum operation up to 24 hours per day (A/N's 436414 and 436318). The emergency diesel engine permit was modified once in 2006 to allow up to 24 hours/day operation (A/N 410480). There has only been 1 permit revision since the last Title V renewal. A minor revision was issued to add the FGR system, which had always existed on the boilers but was not listed in the permit, to the description of the boilers (A/N's 522545, 522546).

#### 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 summarizes the key rules that apply to the major equipment at this site:

##### Turbine

- 218 – Continuous Emission Monitoring (CO)
- 401 – Visible Emissions
- 402 – Nuisance
- 407 – Liquid and Gaseous Air Contaminants (CO and SO<sub>x</sub>)
- 409 – Combustion Contaminants (PM)
- 431.1 – Sulfur Content of Gaseous Fuel (SO<sub>x</sub>)
- 431.2 – Sulfur Content of Liquid Fuel (SO<sub>x</sub>)
- 475 – PM from Gas Turbines (PM)
- 2012 - Reclaim Monitoring, Recording, and Recordkeeping (NO<sub>x</sub>)

##### Boilers

- 401 – Visible Emissions
- 402 – Nuisance
- 407 – Liquid and Gaseous Air Contaminants (CO and SO<sub>x</sub>)
- 409 – Combustion Contaminants (PM)
- 431.1 – Sulfur Content of Gaseous Fuel (SO<sub>x</sub>)
- 1146 – Boiler NO<sub>x</sub> (only the CO portion applies)
- 2012 – Reclaim Monitoring, Recording, and Recordkeeping (NO<sub>x</sub>)

##### Emergency Engines

- 401 – Visible Emissions
- 402 – Nuisance
- 404 – Particulate Matter
- 431.2 – Sulfur Content of Liquid Fuels
- Rule 1470 – Air Toxic Control Measure

NSPS requirements of 40CFR Part 60 subpart GG apply to the turbine. Under Subpart GG NO<sub>x</sub> is limited to 193 ppm and SO<sub>x</sub> is limited to 150 ppm. There are requirements to measure water injection rate, fuel consumption rate, as well as NO<sub>x</sub>, CO, and O<sub>2</sub> by continuous monitoring.

- ✓ The facility is expected to comply with the NO<sub>x</sub> limit with the use of water injection and SCR.
- ✓ Because the unit fires on pipeline natural gas, the unit is expected to meet the SO<sub>x</sub> limit.
- ✓ The unit is required to measure water injection rate (condition D12.1) and to maintain CO and O<sub>2</sub> CEMS (condition D82.1), and a NO<sub>x</sub> CEMS and fuel meter (Reclaim).
- ✓ Therefore, the unit complies with the requirements of Subpart GG.

The facility is not a major source of HAPs and therefore is not subject to any MACT standards. There are no area source MACT standards which apply to this facility. Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64 do not apply to any of the equipment at this site because 1) the turbine uses a continuous emissions monitor for NOx [exempt by continuous compliance determination of section 64.2(b)(vi)], and there is no CO control equipment (no oxidation catalyst), and 2) emissions from the boilers do not exceed the CAM thresholds.

The permit terms and conditions may be found in Section D 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). All periodic monitoring requirements were developed using strict adherence to the following applicable guidance documents: SCAQMD Periodic Monitoring Guidelines for Title V Facilities (November 1997), CAPCOA/CARB/EPA region IX Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP (June 1999), and CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources (July 2001).

Under Reclaim and 40CFR Part 60 Subpart GG, the turbine is required to maintain a NOx and O2 CEMS, including stack analyzer, fuel meter, and data handling and recording system. Under Rule 218 the turbine is required to maintain a CO CEMS. The boilers are required to perform periodic CO testing under Rule 1146.

More detailed discussions of any applicable monitoring and operational requirements can be found in the Engineering Evaluations.

## **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 2013**

Pollutant	Emissions (tons/year)
NOx	15.9
CO	24.7
VOC	8.1
PM	8.2
SOx	0.61

**Toxic Air Contaminants Emissions (TAC)  
Annual Reported Emissions for Reporting Period 2013**

The Following TACs Were Reported	Emissions (lbs/yr)
1,3-Butadiene	1.235
Ammonia	16511
Formaldehyde	190.691
Benzene	25.048
Polynuclear aromatic hydrocarbons (PAHs)	1.916
Naphthalene	2.726
Arsenic	0.002
Cadmium	0.002
Lead	0.013
Nickel	0.006

**Health Risk from Toxic Air Contaminants**

The facility is subject to review by the Air Toxics Information and Assessment Act (AB2588). However, the toxic emissions from this facility are low, and it is categorized as a facility that is being tracked, therefore, no risk assessment has been performed at this time.

**8. Compliance History**

As noted, the facility has been in operation since 1988. The facility has been subject to both self-reporting requirements and AQMD inspections. The facility has had 0 citizen complaints filed, 2 Notice to Comply issued, and 0 Notices of Violation issued in the last two calendar years. There are currently no outstanding compliance issues with this facility.

**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.