



# South Coast Air Quality Management District

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(909) 396-2000 • www.aqmd.gov

August 10, 2012

Mr. Gerardo Rios  
Chief – Permits Office  
U. S. EPA, Region IX  
75 Hawthorne Street, Air 3  
San Francisco, CA 94105

Subject: Los Angeles Department of Water and Power Haynes Generating Station (ID 800074) – Title V Permit Revision

Dear Mr. Rios:

The Los Angeles Department of Water and Power (LADWP) operates the Haynes Generating Station located in Long Beach, CA. It has proposed to revise its Title V permit under Application No. 530955 by the following actions.

Application #	Device #	Section #	Proposed Actions
530957	D195	D	New standby generator
530958	D196	D	New standby generator
530981	D201	D	New oil water separator

This proposed permit revision is a “significant permit revision” to the Title V permit. A public notice will be published in a county newspaper on August 16, 2012. The 30-day public comment period will end on September 17, 2012. With your receipt of the proposed sections today we will note that the EPA 45-day review period begins on August 10, 2012.

If you have any questions or need additional information regarding the proposed permit revision, please call Li Chen at (909) 396-2426.

Very truly yours,

Brian L. Yeh  
Senior Manager  
Mechanical, Chemical, and Public Services

cc: Dipak Patel, LADWP  
BLY:AYL:JTY:LC  
Attachments

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <i>ENGINEERING DIVISION</i>  <b>APPLICATION PROCESSING AND CALCULATIONS</b>	<b>PAGES</b> 19	<b>PAGE</b> 1
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**PERMIT TO OPERATE**

**COMPANY NAME AND ADDRESS**

LA DWP Haynes Generation Station  
6801 2<sup>nd</sup> Street  
Long Beach, CA 90803  
SCAQMD ID #800074

Contact:      Dat Quach (213) 367-4697

**EQUIPMENT LOCATION**

LA DWP Haynes Generation Station  
6801 2<sup>nd</sup> Street  
Long Beach, CA 90803

**EQUIPMENT DESCRIPTION**

Section D of the Facility Permit, ID# 800074, Facility Description and Equipment Conditions

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
<b>PROCESS 1: POWER GENERATION</b>					
IC ENGINE, EMERGENCY #1, CATERPILLAR, DIESEL, MODEL 3516C DITA, 3,622 HP, LEAN BURN, TURBOCHARGED, WITH A JOHNSON MATTHEY CRT PARTICULATE FILTER, WITH:  A/N: 530957  DIESEL STORAGE TANK, 2800 GALLONS, SHARED WITH D196	D195		NOx: Process Unit	<b>NOx:</b> 3.7 G/BHP-HR (4) [RULE 2005, RULE 1703]; NOx: 469 LB/1000 GAL (1) [RULE 2012];  <b>CO:</b> 0.67 G/BHP-HR (4) [RULE 1703, 40 CFR 60.4205(b) ];  <b>VOC:</b> 0.25 G/BHP-HR (4) [RULE 1303]  <b>PM10:</b> 0.007 G/BHP-HR (4) [RULE 1303]	B61.1, C1.6, D12.12, D12.13, E116.2, E193.6, E193.10, E448.1, E448.2, E448.3, I297.2, K67.7

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Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
GENERATOR: 2.5 MW					
IC ENGINE, EMERGENCY #2, CATERPILLAR, DIESEL, MODEL 3516C DITA, 3,622 HP, LEAN BURN, TURBOCHARGED, WITH A JOHNSON MATTHEY CRT PARTICULATE FILTER, WITH:  A/N: 530958  DIESEL STORAGE TANK, 2800 GALLONS, SHARED WITH D195  GENERATOR: 2.5 MW	D196		NOx: Process Unit	<b>NOx: 3.7 G/BHP-HR (4) [RULE 2005, RULE 1703];</b> <b>NOx: 469 LB/1000 GAL (1) [RULE 2012];</b>  <b>CO: 0.67 G/BHP-HR (4) [RULE 1703];</b>  <b>VOC: 0.25 G/BHP-HR (4) [RULE 1303]</b>  <b>PM10: 0.007 G/BHP-HR (4) [RULE 1303]</b>	B61.1, C1.6, D12.12, D12.13, E116.2, E193.6, E193.10, E448.1, E448.2, E448.3, I297.3, K67.7
OIL/WATER SEPARATOR, PSI, MODEL: PSC-1000, VOL: 1000 GAL, FLOW RATE: 100 GPM, 4'0" DIA X 15'8" LENGTH  WITH:  A/N: 530981	D201				E193.6

## **BACKGROUND**

The Los Angeles Department of Water and Power (LADWP) owns and operates the Haynes Generation Station (HGS). In 2010 the HGS applied for and received permits to construct a simple cycle generation system (SCGS) that includes six GE LMS100 simple cycle gas turbine generators. LADWP originally applied to install two standby diesel generators for the SCGS but rescinded the permit applications on December 23, 2010. LADWP indicated that it would apply for the two engines later.

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LADWP now submits applications to install two standby generators and one oil water separator. The equipment will be a part of the SCGS that is currently under construction.

The following is a list of the applications submitted by LADWP.

Applications	Equipment	Fee
530955	Title V/RECLAIM permit revision	\$1,747.19
530957	Standby Diesel Generator #1	\$2,123.92
530958	Standby Diesel Generator #2	\$1,061.96
530981	Waste Oil Water Separator	\$3,359.43
Expedited Permit Processing Fee		\$3,272.66
<b>Total Fee</b>		<b>\$11,565.16</b>

The applications were submitted to the District on November 30, 2011. They were deemed complete on January 17, 2012. LADWP is a federal Title V facility. It participates in the RECLAIM NOx program.

### **CRITERIA POLLUTANTS EMISSIONS**

- Standby Generators

Emissions from the IC engines are calculated based on the manufacturer guaranteed level.

Engine Manufacturer	Caterpillar
Engine Model Number	3516C DITA
Engine Specifications	Water cooled, turbocharged and aftercooled
Engine brake horsepower (BHP)	3,622
Engine Power Output (KW)	2,500
Fuel:	#2 CARB Diesel
Fuel Usage (Gallons/hour):	173.3
Annual Operation Limit (hours):	200
Annual Maintenance Limit (hours):	50
Stack Flow	19,048.7 ACFM
Stack Temperature	921.9 °F

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The following emission factors are proposed by the applicant and warranted by the manufacturer.

NOx (grams/bhp-hr)	3.7	
CO (grams/bhp-hr)	0.67	
VOC (grams/bhp-hr)	0.25	
PM (grams/bhp-hr)	0.07	before the particulate filter
	0.007	after the diesel particulate filter

SOx emission factor is extrapolated by assuming the CARB diesel contains less than 15 ppm sulfur as H<sub>2</sub>S. One pound of H<sub>2</sub>S would convert to 64/34 pounds of SO<sub>2</sub> or SOx.

SOx (lb/lb diesel):	$15 \times 10^{-6} * 64/34 = 28.2 * 10^{-6}$
SOx (lb/Mgal):	$28.2 * 10^{-6} * 1000 * 7.5 = 0.21$

The hourly emissions are:

NOx (lbs/hr):	$3.7 * 3,622 / 453.6 = 29.54$
CO (lbs/hr):	$0.67 * 3,622 / 453.6 = 5.35$
VOC (lbs/hr):	$0.25 * 3,622 / 453.6 = 2.0$
PM (lbs/hr):	$0.007 * 3,622 / 453.6 = 0.056$
SOx (lbs/hr):	$0.21 * 173.3 / 1,000 = 0.037$

Emission increases are then calculated by assuming 50 hours of annual maintenance, or 4.2 hours per month.

#### Emissions of the Standby Generators

	NOx	CO	VOC	PM	SOx
Hourly (lbs/hour)	29.54	5.35	2.0	0.056	0.037
Monthly Total (lbs)	123.1	22.3	8.32	0.23	0.16
Emission Increase (lbs/day, 30-day Avg.)	4.10	0.74	0.28	0.01	0.01

- Oil water separator

The oil water separator specifications are:

Type:	Horizontally placed cylindrical above ground
Count:	1
Tank diameter:	4 ft

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Tank length: 15 ft 5 inches  
 Volume: 1,000 gallons  
 Annual turnovers: 52  
 Vacuum setting: no vent valve  
 Pressure setting: no vent valve

Working loss and breathing loss are expected from the oil water separators. The emissions are considered as VOC, and are calculated using EPA's Tank program, version 4.0.9d. The detailed calculation spreadsheets are included in the application folder. The results are summarized below:

Annual Breathing Loss: 0 lbs  
 Annual Working Loss: 2.63 lbs  
 Total Loss: 2.63 lbs/year

The monthly average is 0.22 lbs/month. The 30-day average emissions are 0.007 lbs/day.

### TOXIC AIR CONTAMINANTS EMISSIONS

The two diesel fueled standby generators will emit hazardous air pollutants. The HAP emissions are calculated based on the following parameters:

Annual hours of operation: 50 each engine  
 Fuel usage: 173.3 gallons/hour  
 Annual fuel usage: 8.665 Mgal

The hazardous air pollutants and the emission factors are listed in the next table. The emission factors are adopted from Ventura County APCD AB2588 Combustion Emission Factors.

HAP Emissions from the Standby Generators

Hazardous Air Pollutant	Aix Toxic Case Number	Emission Factor (lb/Mgal)	Annual Emissions (lb/year)	Annual Emissions (tons/year)
Benzene	71432	0.1863	1.61E+00	8.07E-04
Formaldehyde	50000	1.7261	1.50E+01	7.48E-03

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PAHs (including naphthalene)	107028	0.0559	4.84E-01	2.42E-04
Naphthalene	91203	0.0197	1.71E-01	8.54E-05
Acetaldehyde	75070	0.7833	6.79E+00	3.39E-03
Acrolein	1070208	0.0339	2.94E-01	1.47E-04
1,3-Butadiene	106990	0.2174	1.88E+00	9.42E-04
Chlorobenzene	108907	0.0002	1.73E-03	8.67E-07
Propylene	115071	0.4670	4.05E+00	2.02E-03
Hexane	110543	0.0269	2.33E-01	1.17E-04
Toluene	108883	0.1054	9.13E-01	4.57E-04
Xylenes	1330207	0.0424	3.67E-01	1.84E-04
Ethyl Benzene	100414	0.0109	9.44E-02	4.72E-05
Hydrogen Chloride	7647010	0.1863	1.61E+00	8.07E-04
Arsenic	7440382	0.0016	1.39E-02	6.93E-06
Cadmium	7440439	0.0015	1.30E-02	6.50E-06
Total Chromium	7440473	0.0006	5.20E-03	2.60E-06
Hexavalent Chromium	18540299	0.0001	8.67E-04	4.33E-07
Copper	7440508	0.0041	3.55E-02	1.78E-05
Lead	7439921	0.0083	7.19E-02	3.60E-05
Manganese	7439965	0.0031	2.69E-02	1.34E-05
Mercury	7439976	0.0020	1.73E-02	8.67E-06
Nickel	7440020	0.0039	3.38E-02	1.69E-05
Selenium	7782492	0.0022	1.91E-02	9.53E-06
Zinc	7440666	0.0224	1.94E-01	9.70E-05
Diesel Particulates	N/A	0.056	2.80E+00	1.40E-03
Total			3.67E+01	1.83E-02

Note diesel particulates has been classified as a hazardous air pollutant. The emission rate is assumed to the same as the PM, which is 0.007 lbs/hr.

## **RULE EVALUATIONS**

### **Title 40 Part 60, Subpart III – NSPS for IC Engines**

Emergency compression ignition engines of model year 2007 or later with a displacement of < 30 liters per cylinder must to comply with the emission standards of §60.4202. The engine has a total displacement of 69 liters/16 cylinders = 4.3 liters/cylinder, and has a horsepower rating of 3,622 HP. Engines greater than 3,000 HP and manufactured after 2011 shall meet the performance standard of 40 CFR 89.112. According to 40 CFR 89.112 this engine will need to comply with the Tier 2 emissions limits. This engine meets the Tier 2 performance standards. Therefore, compliance is anticipated.

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Title 40 Part 63, Subpart ZZZZ – NESHAP for IC Engines

The facility is a NESHAP major source because the facility total formaldehyde emissions exceed 10 tons per year. Both engines proposed for construction are new compression ignition (CI) reciprocating internal combustion engines (RICE) located at a major source. For emergency use, new and reconstructed stationary engine greater than 500 HP and located at Major Source of HAP the requirements are:

- Compliance date:                   upon startup
- Emission limitations:           no requirements
- Operating limitations:          no requirements
- Fuel Requirements:               no requirements
- Performance Tests:              no requirements
- Monitoring, Installation, Collection, Operation and Maintenance Requirements: no requirements
- Initial Compliance:             no requirements

Initial compliance and continued compliance are expected. In addition, the engine will comply with 40 CFR 60 Subpart III.

California Environmental Quality Act (CEQA)

An EIR (state clearinghouse number 2005061111) was prepared in May 2010 for the Haynes repower project that included the two standby generators. The lead agency was LADWP.

As a part of the CEQA certification conditions the two emergency IC engines shall not be tested at the same time, or during the gas turbine commissioning period. This condition will be added to the diesel engines.

Rule 212 – Standards for Approving Permits and Issuing Public Notice

The facility is not located within 1,000 feet of any K-12 school. It is not subject to the requirements of Rule 212(c)(1). Based on the Rule 1401 calculations the maximum individual cancer risk (MICR) from the standby generators is 0.1 in one million. It is less than one in a million. It is not subject to the public notification requirements of Rule 212(c)(3).

The engine's emissions are less than the limits specified in Rule 212(g). It is not subject to the requirements of Rule 212(g).

Rule 401 – Visible Emissions

Compliance with this rule is expected for the standby generators and the oil water separator.

Rule 402 – Nuisance

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Compliance with this rule is expected for the standby generators and the oil water separator.

Rule 404 – Particulate Matter - Concentration

This rule does not apply to the oil water separator.

This rule applies to the standby generators. This rule limits the PM concentration in the discharged gas, such as the exhaust of the standby generators. The PM concentration limits are listed in Table 404(a). The standby generator exhaust flow is 19,048.7 acfm, at 921.9 °F. This exhaust flow is equivalent to 7,167.9 scfm. At this flow rate the PM10 limit of Table 404(a) is 0.083 grain/scf.

The standby generator will be equipped with a diesel particulate filter. The controlled PM emission rate is 0.007 g/bhp-hr. The expected PM concentration is:

$$0.007 \text{ g/bhp-hr} * 3,622 \text{ bhp} * 15.4 \text{ grain/g} / 7,167.9 \text{ scfm} * / 60 \text{ min/hr} = 0.0009 \text{ grain/scf}$$

The concentration is far less than the 0.083 grain/scf limit. Compliance is expected.

Rule 407 – Liquid and Gaseous Air Contaminants

This rule limits CO concentration to less than 2,000 ppm and SO2 to less than 500 ppm.

This rule does not apply to stationary IC engines. The oil water separator is expected to comply with this rule.

Rule 409 – Combustion Contaminants

The oil water separator is not subject to this rule . The standby generators are IC engines that are exempted from this rule.

Rule 431.2 – Sulfur Content of Liquid Fuels

Diesel fuel supplied to this equipment must contain 15 ppm or less sulfur by weight. The facility will only use CARB certified diesel. The facility permit has a facility condition F14.2 that prohibits the facility to purchase fuel oil with sulfur content greater than 15 ppmv. A condition B61.1 will be added that require the facility to use only diesel with less than 15 ppm sulfur content. Compliance is expected.

Rule 1110.2 – Emissions from Gaseous- and Liquid-fueled Engines

This rule does not apply to emergency power generators.

Regulation XIII – New Source Review for Non-Attainment Pollutants

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This rule applies to the standby generators and the oil water separator for the PM, VOC and SO<sub>x</sub> emissions. NSR includes requirements of BACT, modeling, and offset. Because LADWP Haynes is a major source the major source BACT/LAER requirements apply.

1. Best Available Control Technology (BACT)

BACT is defined in AQMD Rule 1301 as follows:

BACT means the most stringent emission limitation or control technique which:

- has been achieved in practice for such category or class of source; or
- is contained in any State Implementation Plan (SIP) approved by the US EPA for such category or class of source. A specific limitation or control technique shall not apply if the owner or operator of the proposed source demonstrates to the satisfaction of the Executive Officer that such limitations or control technique is not presently achievable; or
- is any other emission limitation or control technique, found by the Executive Officer or designee to be technologically feasible for such class or category of sources or for a specific source, and cost effective as compared to measures as listed in the Air Quality Management Plan (AQMP) or rules adopted by the District Governing Board.

This definition of BACT is consistent with the federal LAER definition with the exception of the cost effectiveness clause.

For the standby generators the BACT are determined by following the above BACT definitions:

- VOC: Comply with the Tier 2 limit for a diesel engine greater than 750 bhp
- PM<sub>10</sub>: Use of CARB certified diesel, and use of a diesel particulate filter because of LAER
- SO<sub>x</sub>: Use of CARB certified diesel

The oil water separator has 0.007 lb/day VOC emissions. BACT does not apply.

2. Modeling and Offset

The standby generators are exempted from the requirements of modeling and offset. The oil water separator has only VOC emissions. VOC emissions are exempted from the modeling requirements. Offset is not required because the emissions are less than 0.5 lbs a day.

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Rule 1325 – Federal PM2.5 New Source Review

This rule address specifically PM2.5 emissions. This rule applies to major polluting facilities and major modifications to a major polluting facility. The major polluting facility definition is PM2.5 emissions greater than 100 tons per year, either potential to emit or past actual emissions. The LADWP Haynes facility is a major polluting facility based on the potential to emit. However, the facility has accepted a federally enforceable condition E193.10 that limit to actual emissions to less than 100 tons per year. The permit condition requires the facility to determine PM2.5 emissions from each source on the annual basis.

LADWP will continue to comply with the 100 ton/year limit after the addition of the two standby generators and the oil water separator. Condition E193.10 will be modified to include the two emissions from the two generators. The PM2.5 emission factors are:

$$E = 0.056 \text{ lb/hr} / 173.3 \text{ Gal/hr} = 0.32 \text{ lb/Mgal}$$

The facility will be required to include the emissions from the two generators in the facility total PM2.5 calculations.

Rule 1401 – New Source Review of Toxic Air Contaminants

Although emergency IC engines are exempted from the requirement of this rule a tier 2 screening analysis was conducted to determine whether this project will be subject to the Rule 212 (C)(3) public notice requirements. The MICR was found to be 0.1 in a million for a resident receptor.

Rule 1470 – Requirements for Stationary Diesel Engines

This rule specifies emissions limits, hours of operation, and requirement of diesel particulate filter to new or modified diesel engines. The rule was amended on May 4, 2012. The amendment updated the emissions requirements.

Based on the horsepower rating of 2,000 kW the engines are required to comply with Tier 2 emission standards. The engine's emissions rates and the Tier 2 standards are compared in the next table.

	NMHC + NOx (g/bhp-hr)	CO (g/bhp-hr)	PM (g/bhp-hr)
The subject engines	3.95 (3.7+0.25)	0.67	0.07 before the DPF, 0.007 after the DPF
Tier 2 standards	4.8	2.6	0.15

Based on the PM emission rate the engine is allowed 50 hours per year operation for maintenance and testing.

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The engines are equipped with a Johnson Matthey CRT+ diesel particulate filter. The filter is certified by CARB Executive Order DE-08-009-04. The certification specifies the performance criteria that the engine must follow. A permit condition is added to enforce the DPF certification conditions.

Rule 1472 – Requirements for Multiple Stationary Standby Diesel Engines

This rule applies to facilities with three or more diesel standby generators. The facility has one existing engine (D53). With the addition of the two engines the facility will have three engines. Thus, this rule applies.

The rule provides an exemption if the facility can demonstrate that there are no engine groups which are defined as three or more engines located within 150 meters of one another. The two new engines will be located about 750 meters from the existing engine D53. Therefore, they do not form an engine group.

The facility will need to submit the Initial Notification Of Exemptions to AQMD after the two engines are installed.

Regulation XVII – Prevention of Significant Deterioration (PSD)

This rule applies to new major sources and major modifications of existing major sources for the attainment pollutants, CO, SO<sub>2</sub>, and NO<sub>2</sub>. The major modifications are those of significant emission increases, which are 40 tons per year for Sox or NOx and 100 tons per year for CO. The proposed installation of the two standby generators and the oil water separator in itself will not be a major modification. However, the Haynes repower project needs to demonstrate PSD compliance with the two standby generators.

The PSD requirements are:

- Use of BACT
- Modeling to determine impacts of the project on national and state ambient air quality standards, and increases over the baseline concentrations
- Modeling analysis of ambient air quality in the impact area
- Analysis of project impacts on visibility, soil, and vegetation

The PSD analysis of the Haynes repower project was conducted in 2009. The PSD analysis included the six combustion turbines, the SCR and CO catalysts, the two standby generators, the diesel storage tank and three oil water separators. The PSD analysis was reviewed and approved by the SCAQMD, the EPA, and by the federal land manager of the impacted Class I areas, with the EPA exception to the two standby generators. The EPA requested that the two standby generators be included in the impact analysis to the NAAQS 1-hour standard. Since the PSD

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analysis did not do so the facility decided to withdraw the two permit applications. The Haynes repower project received the permit in December 2010.

Since then EPA provided clarification regarding modeling of NO<sub>2</sub> emissions from intermittent emission units such as emergency generators for compliance determination for the 1-hour NO<sub>2</sub> NAAQS. The guidance document published in March 2011 recommends that compliance demonstrations for the 1-hour NO<sub>2</sub> NAAQS be based on scenarios that can logically be assumed to be relatively continuous or which occur frequently enough to contribute significantly to the annual distribution of daily maximum 1-hour concentrations. Since the two standby generators are to operate for no more than 50 hours per year for testing and maintenance the emissions can be excluded from compliance demonstration with the 1-hour NO<sub>2</sub> NAAQS. However, compliance with the annual NO<sub>2</sub> California AAQS still applies.

The facility revised the modeling analysis to include the two standby generators. The analysis was submitted to AQMD for approval. The analysis was deemed acceptable by AQMD for PSD compliance determinations. With the two standby generators the highest ground level annual NO<sub>2</sub> concentration project impact is 0.38 µg/m<sup>3</sup>. When added to the worst case background concentration the peak annual NO<sub>2</sub> concentration is 40.3 µg/m<sup>3</sup>, which is less than California annual NO<sub>2</sub> standard of 57 µg/m<sup>3</sup>. Because the concentration 0.38 µg/m<sup>3</sup> is less than 1.0 µg/m<sup>3</sup> significant threshold a full impact analysis is not required.

#### Rule 1714 – Prevention of Significant Deterioration (PSD) for Greenhouse Gases

This rule applies to the greenhouse gas (GHG) that include CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, HFCs, PFCs, and SF<sub>6</sub>. It applies to new major sources and major modifications of existing major sources of GHG emissions. This rule is triggered if the net GHG emissions increases are greater than 75,000 tons.

It is calculated that GHG emissions from the two generators are 195 tons per year. It is much lower than the 75,000 tons per year limit. Therefore, this rule does not apply.

#### Regulation XX – RECLAIM

This rule applies to NO<sub>x</sub> emissions because LADWP Haynes participates in the NO<sub>x</sub> RECLAIM program.

- Requirement of BACT

The BACT requirement for a diesel standby generator is consistent with Rule 1470 requirement. For an engine greater than 750 bhp the requirement is to comply with Tier 2 emission standards. The two standby engines satisfy the Tier 2 emissions standards.

- Modeling

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Emergency generators are exempted from modeling requirements

- Offset

Offset are provided in the form of RECLAIM trading credits (RTC). The annual RTC requirements are based on 50 hours operation per year. The default allocation for a diesel engine for LADWP is 469 lb/Mgal.

$$\text{RTC} = 469 \text{ lb/Mgal} * 173.3 \text{ gallon/hr} / 1,000 \text{ gallon/Mgal} * 50 \text{ hr} = 4,064 \text{ lbs}$$

Rule 2012 – Monitoring, Reporting, and Recordkeeping for NOx

The two standby generators are RECLAIM process units. The original allocation calculations in 1994 for internal combustion engines were based on 469 pounds per 1,000 gallons. Therefore the facility will be reporting NOx emissions based on 469 lb/Mgal factor. The facility has the option to conduct a source test and establish a different reporting factor. The engines will be equipped with a non-resettable elapsed time meter to accurately indicate the operating time, and transmit to AQMD the emissions on the monthly basis.

Regulation XXX – Title V Permit

The proposed installation and operation of two standby generators and one oil water separator is a significant permit revision. A draft permit revision will be prepared for this project (under application number 530955). In accordance with Title V requirements, a copy of the draft permit revision and the engineering evaluation will be provided to the EPA for review.

A public notice will be prepared according to the requirements of Rule 3006(a)(1)(F). This public notice will give the public a 30-day period to provide comments. The public notice will be published on the county newspaper Daily Journal.

The final permit to operate will be issued at the conclusion of the 45-day EPA review period and the 30-day public commenting period as specified in Rule 3005.

**CONDITIONS**

Facility Condition:

- F14.2 The operator shall not purchase fuel oil containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

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This condition shall become effective on or after June 1, 2004.

[RULE 431.2, 9-15-2000]

Device Conditions:

B61.1 The operator shall only use fuel oil containing the following specified compounds:

Compound	Is	PPM by weight
Total sulfur compounds calculated as H <sub>2</sub> S	Less than	15

[Rule 1303-BACT, Rule 2005, Rule 431.2]

[Devices subject to this condition: D195, D196]

C1.6 The operator shall limit the operating time to no more than 200 hour(s) in any one year.

The operation includes no more than 50 hours per year and 1 hour per week for maintenance and testing as required in rule 1470(c)(2).

The operation of the engine beyond the 50 hours per year allotted for engine maintenance and testing shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the electrical grid operator or electric utility has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a utility service block that is subject to the rotating outage. Engine operation shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect.

[Rule 1303-Exemptions, Rule 1470, 40 CFR 60.4211(f)]

[Devices subject to this condition: D195, D196]

D12.12 The operator shall install and maintain a non-resettable totalizing time meter to accurately indicate the elapsed operating time of the engine.

[Rule 1303-Exemptions, Rule 1470]

[Devices subject to this condition: D195, D196, 40 CFR 60.4209(a)]

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D12.13 The operator shall install and maintain a non-resettable elapsed fuel meter to accurately indicate the engine fuel consumption.

[Rule 2012]

[Devices subject to this condition: D195, D196]

E116.2 This engine shall not be used as part of an interruptible service contract in which a facility receives a payment or reduced rates in return for reducing electric load on the grid when requested by the utility or the grid operator.

[Rule 1470, Rule 1303-Exemptions]

[Devices subject to this condition: D195, D196]

E193.6 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

In accordance with all air quality mitigation measures stipulated in the Draft Environmental Impact Report (EIR), State Clearing House #2005061111.

[CEQA]

[Device subject to this condition: D195, D196, D201]

E193.10 The operator shall not commence operation of any of the new Units 11-16 until the AQMD certifies that one of the following conditions has been satisfied:

The facility has provided 292 lbs/day of federally enforceable PM<sub>2.5</sub> emission reduction credits unless a different amount associated with the Repower Project modification at this facility as determined to be required according to the federal New Source Review (NSR) requirements (40CFR Part 51 Subpart Z Appendix S), as approved by both AQMD and EPA.

The operator shall comply with a federally enforceable limit of 100 tons per year of PM<sub>2.5</sub> emissions.

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For purposes of demonstrating compliance with the 100 ton per year limit the operator shall determine the PM<sub>2.5</sub> emissions for each of the major sources at the facility by calculating a 12-month rolling average using the following formula:

$$PM_{2.5} = (FF_1 * EF_1 + FF_2 * EF_2 + FF_9 * EF_9 + FF_{10} * EF_{10} + FF_{11} * EF_{11} + FF_{12} * EF_{12} + FF_{13} * EF_{13} + FF_{14} * EF_{14} + FF_{15} * EF_{15} + FF_{16} * EF_{16} + \underline{FF_{D1} * EF_{D1} + FF_{D2} * EF_{D2}}) / 2000$$

Where:

PM<sub>2.5</sub> = PM<sub>2.5</sub> emissions in tons per year

FF<sub>1</sub> = fuel flow for Unit 1 in MMscf

FF<sub>2</sub> = fuel flow for Unit 2 in MMscf

FF<sub>9</sub> = fuel flow for Unit 9 in MMscf

FF<sub>10</sub> = fuel flow for Unit 10 in MMscf

FF<sub>11</sub> to FF<sub>16</sub> = fuel flow for Units 11 to 16 in MMscf

FF<sub>D1</sub> to FF<sub>D2</sub> = diesel usage for two black start generator in Mgal

EF<sub>1</sub> = emission factor for Unit 1 = 7.14 lb/MMscf

EF<sub>2</sub> = emission factor for Unit 2 = 6.61 lb/MMscf

EF<sub>9</sub> = emission factor for Unit 9 = 1.238 lb/MMscf

EF<sub>10</sub> = emission factor for Unit 10 = 0.968 lb/MMscf

EF<sub>11</sub> to EF<sub>16</sub> = emission factor for Units 11 to 16 = 6.423 lb/MMscf

EF<sub>D1</sub> to EF<sub>D2</sub> = emission factor for two black start generator = 0.32 lb/Mgal

Any changes to these emission factors must be approved in advance by the District in writing and be based on unit specific source tests performed using a District approved testing protocol.

[40 CFR, Part 51, Appendix S, September 26, 2008]

[Devices subject to these conditions: D1, D4, D125, D134, D159, D162, D168, D174, D180, D186, D195, D196]

E448.1 The operator shall comply with the following requirements:

The engine and the Johnson Matthey CRT+ diesel particulate filter shall be operated in accordance with CARB Executive Order DE-08-009-04.

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The engine shall operate at the load level required to achieve 240 °C for a minimum of 40% of the engine's operating time and a NO<sub>x</sub>/PM ratio of 15 @ ≥ 300 °C and 20 @ ≥ 300 °C. The NO<sub>x</sub>/PM ratio shall be at least 8 with a preference for 20 or higher.

The engine shall not operate below passive regeneration temperature for more than 720 consecutive minutes. Regeneration is required after 24 consecutive cold starts and 30-minute idle sessions.

Filter cleaning is required after 150 half-hour cold starts with associated regeneration or 1,000 hours of emergency use. The CRTdm, which monitors engine exhaust back pressure and temperature will determine the actual cleaning interval and provide an alert when filter cleaning is required.

The operator shall keep records of any corrective action taken after the CRTdm has notified the operator that a high pressure limit is reached.

[Rule 1470, Rule 1303-BACT]

[Devices subject to this condition: D195, D196]

E448.2 The operator shall comply with the following requirements:

Removal of the diesel particulate filter's filter media for cleaning may only occur under the following conditions:

- A. The internal combustion engine shall not be operated for maintenance and testing or any other non-emergency use while the diesel particulate filter media is removed; and
- B. The diesel particulate filter's filter media shall be returned and re-installed within 10 working days from the date of removal; and
- C. The owner or operator shall maintain records indicating the date(s) the diesel particulate filter's filter media was removed for cleaning and the date(s) the filter media was re-installed. Records shall be retained for a minimum period of 36 months.

[Rule 1470, Rule 1303-BACT]

[Devices subject to this condition: D195, D196]

E448.3 The operator shall comply with the following requirements:

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The engine shall comply with the emission standards specified in 40 CFR 60.4204(b) and 4205(b). The operator must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4204(b), or 4205(b) or (c), as applicable, for the model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

The engine and the control device shall be operated and maintained in accordance with the manufacturer's written emission-related instructions or procedures developed by the operator that are approved by the engine manufacturer. Changes to those emission-related settings that are set by the manufacturer are not allowed.

[40 CFR 60.4211(a), 40 CFR 60.4211(c)]

[Devices subject to this condition: D195, D196]

- 1297.2 This equipment shall not be operated unless the facility holds 4,064 pounds of NO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. RTCs held to satisfy this condition may be transferred only after one year from the initial start of operation. If the hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[Rule 2005 – Offsets]

[Devices subject to this condition: D195]

- 1297.3 This equipment shall not be operated unless the facility holds 4,064 pounds of NO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. RTCs held to satisfy this condition may be transferred only after one year from the initial start of operation. If the hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[Rule 2005 – Offsets]

[Devices subject to this condition: D196]

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K67.7 The operator shall keep a log of engine operations documenting the total time the engine is operated each month and the specific reason for operation as.

- A. Emergency Use
- B. Maintenance and Testing
- C. Other (be specific)

In addition, for each time the engine is manually started, the log shall include the date of engine operation, the specific reason for operation, and the totalizing hour meter reading (in hours and tenths of hours) at the beginning and the end of the operation.

On or before January 15th of each year the operator shall record in the engine operating log:

- A. The total hours of engine operation for the previous calendar year,
- B. The total hours of engine operation for maintenance and testing for the previous calendar year

Records shall be kept and maintained on file for a minimum of five years and made available to district personnel upon request.

[Rule 1470, Rule 3004, 40 CFR 60.4214(b)]

[Devices subject to this condition: D195, D196]

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
<b>System 1: BOILERS</b>					
BOILER, UNIT NO. 1, FUEL OIL, NATURAL GAS, COMBUSTION ENGINEERING, FRONT FIRED, AIR PREHEATED, WITH OXYGEN CONTENT CONTROL, 2240 MMBTU/HR WITH A/N: 410730  GENERATOR, 230 MW  INJECTOR, MAGNESIUM COMPOUNDS, FUEL OIL ADDITIVE SYSTEM	D1	C73 S96	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 5 PPMV (5A) [RULE 2009, 5-11-2001]; NOX: 12.37 LBS/1000 GAL FUEL OIL (1) [RULE 2012, 5-6-2005]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SOX: 500 PPMV FUEL OIL (5) [RULE 407, 4-2-1982]	A195.5, B59.1, D182.1, D371.1, E202.1, E204.1, E204.2, K171.1
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 1, TWO BABCOCK & WILCOX REACTORS, 1760 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 19 FT 3 IN; HEIGHT: 23 FT 9 IN; LENGTH: 12 FT 10 IN WITH A/N: 259533  AMMONIA INJECTION, UNIT NO. 1, TWO AMMONIA/AIR INJECTION GRIDS, EACH HAVING 1104 INJECTION NOZZLES	C73  C74	D1		NH3: 10 PPMV FUEL OIL (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; NH3: 20 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A99.1, D12.2, D12.3, D28.3, E73.1, E179.1, E179.2
STACK, BOILER NO. 1 A/N: 410730	S96	D1			

\* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
BOILER, UNIT NO. 2, FUEL OIL, NATURAL GAS, COMBUSTION ENGINEERING, FRONT FIRING, AIR PREHEATED, WITH OXYGEN CONTENT CONTROL, 2240 MMBTU/HR WITH A/N: 410732  INJECTOR, MAGNESIUM COMPOUNDS, FUEL OIL ADDITIVE SYSTEM  GENERATOR, 230 MW	D4	C75 S97	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 5 PPMV (5A) [RULE 2009, 5-11-2001]; NOX: 12.37 LBS/1000 GAL FUEL OIL (1) [RULE 2012, 5-6-2005]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SOX: 500 PPMV FUEL OIL (5) [RULE 407, 4-2-1982]	A195.5, B59.1, D182.1, D371.1, E202.1, E204.1, E204.2, K171.1
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 2, TWO BABCOCK & WILCOX REACTORS, 1760 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 19 FT 3 IN; HEIGHT: 23 FT 9 IN; LENGTH: 12 FT 10 IN WITH A/N: 259534  AMMONIA INJECTION, UNIT NO. 2, TWO AMMONIA/AIR INJECTION GRIDS, EACH HAVING 1104 INJECTION NOZZLES	C75  C76	D4		NH3: 10 PPMV FUEL OIL (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; NH3: 20 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A99.1, D12.2, D12.3, D28.3, E73.1, E179.1, E179.2
STACK, BOILER NO. 2 A/N: 410732	S97	D4			

\* (1) (1A) (1B) Denotes RECLAIM emission factor  
 (3) Denotes RECLAIM concentration limit  
 (5) (5A) (5B) Denotes command and control emission limit  
 (7) Denotes NSR applicability limit  
 (9) See App B for Emission Limits  
 (2) (2A) (2B) Denotes RECLAIM emission rate  
 (4) Denotes BACT emission limit  
 (6) Denotes air toxic control rule limit  
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
BOILER, UNIT NO. 5, FUEL OIL, NATURAL GAS, BABCOCK AND WILCOX, OPPOSED FIRING, SUPERCRITICAL, AIR PREHEATED, WITH OXYGEN CONTENT CONTROL, 3240 MMBTU/HR WITH A/N: 410734  GENERATOR, 343 MW  INJECTOR, MAGNESIUM COMPOUNDS, FUEL OIL ADDITIVE SYSTEM	D7	C77 S98	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 5 PPMV (5A) [RULE 2009, 5-11-2001]; NOX: 12.37 LBS/1000 GAL FUEL OIL (1) [RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SOX: 500 PPMV FUEL OIL (5) [RULE 407, 4-2-1982]	A195.5, B59.1, D182.1, D371.1, E202.1, E204.1, E204.2, K171.1
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 5, NOELL REACTOR, 3339 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 39 FT ; HEIGHT: 30 FT ; LENGTH: 53 FT 4 IN WITH A/N: 274319  AMMONIA INJECTION, UNIT NO. 5, AMMONIA/AIR INJECTION GRID, HAVING 480 INJECTION NOZZLES	C77	D7		NH3: 20 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; NH3: 20 PPMV FUEL OIL (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.2, D12.3, D28.3, E73.1, E179.1, E179.2
STACK, BOILER NO. 5 A/N: 410734	S98	D7			

- \* (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
BOILER, UNIT NO. 6, FUEL OIL, NATURAL GAS, BABCOCK AND WILCOX, OPPOSED FIRING, SUPERCRITICAL, AIR PREHEATED, STEAM PIPE ID: 6.17", OD: 10.75", WITH OXYGEN CONTENT CONTROL, 2510 MMBTU/HR WITH A/N: 471457  GENERATOR, RATED 261 MW, LIMITED TO 243 MW BY CEC  INJECTOR, MAGNESIUM COMPOUNDS, FUEL OIL ADDITIVE SYSTEM	D9	C79 S99	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 5 PPMV NATURAL GAS (5) [RULE 2009, 1-7-2005]; NOX: 12.37 LBS/1000 GAL FUEL OIL (1) [RULE 2012, 5-6-2005]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SOX: 500 PPMV FUEL OIL (5) [RULE 407, 4-2-1982]	B59.1, D182.1, D371.1, E193.5, E202.1, E204.1, E204.2, K171.1
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 6, NOELL REACTOR, 3339 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 39 FT ; HEIGHT: 30 FT ; LENGTH: 53 FT 4 IN WITH A/N: 274321  AMMONIA INJECTION, UNIT NO. 6, AMMONIA/AIR INJECTION GRID, HAVING 480 INJECTION NOZZLES	C79	D9		NH3: 20 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; NH3: 20 PPMV FUEL OIL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	D12.2, D12.3, D28.3, E73.1, E179.1, E179.2, K40.4
STACK, BOILER NO. 6 A/N: 471457	S99	D9			
<b>System 2: TURBINES</b>					

- |                                                          |                                                               |
|----------------------------------------------------------|---------------------------------------------------------------|
| * (1) (1A) (1B) Denotes RECLAIM emission factor          | (2) (2A) (2B) Denotes RECLAIM emission rate                   |
| (3) Denotes RECLAIM concentration limit                  | (4) Denotes BACT emission limit                               |
| (5) (5A) (5B) Denotes command and control emission limit | (6) Denotes air toxic control rule limit                      |
| (7) Denotes NSR applicability limit                      | (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.) |
| (9) See App B for Emission Limits                        | (10) See section J for NESHAP/MACT requirements               |

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
GENERATOR, HEAT RECOVERY STEAM  STEAM TURBINE, STEAM, UNIT NO. 8, COMMON TO GAS TURBINES NO. 9 AND NO. 10, 257 MW (AT 65 DEG. F)					
BURNER, DUCT, NATURAL GAS, LOCATED IN THE HRSG OF TURBINE NO. 9, 286.6 MMBTU/HR A/N: 517866	D129	C130	NOX: MAJOR SOURCE**	CO: 4 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 0.2 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart Da, 10-4-1991]; NOX: 2 PPMV NATURAL GAS (4) [RULE 2005, 5-6-2005]; PM: 0.01 GRAINS/SCF (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.03 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart Da, 10-4-1991]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR (5B) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SOX: 0.2 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart Da, 10-4-1991]; VOC: 2 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.3, A99.2, A99.3, A195.1, A195.2, A195.3, A327.1, A433.1, B75.1, D29.4, D29.5, D82.1, D82.2, D372.1, E57.1, E193.1, K40.3, K67.4

- |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * (1) (1A) (1B) Denotes RECLAIM emission factor<br>(3) Denotes RECLAIM concentration limit<br>(5) (5A) (5B) Denotes command and control emission limit<br>(7) Denotes NSR applicability limit<br>(9) See App B for Emission Limits | (2) (2A) (2B) Denotes RECLAIM emission rate<br>(4) Denotes BACT emission limit<br>(6) Denotes air toxic control rule limit<br>(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)<br>(10) See section J for NESHAP/MACT requirements |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
STACK, SERVING UNIT NO. 9, HEIGHT: 140 FT ; DIAMETER: 19 FT A/N: 517866	S133	C131			
CO OXIDATION CATALYST, SERVING UNIT NO. 9, HITACHI, MITSUBISHI, PEERLESS OR EQUAL, HEIGHT:61 FT; LENGTH:26 FT; WIDTH:4 FT; WITH 6344 CUBIC FEET OF CATALYST VOLUME A/N: 432467	C130	DI25 D129 C131			
SELECTIVE CATALYTIC REDUCTION, SERVING UNIT NO. 9, HITACHI, MITSUBISHI, PEERLESS OR EQUAL, HEIGHT: 61 FT; LENGTH:26 FT; WIDTH: 5 FT, WITH 7930 CU FEET OF CATALYST VOLUME WITH A/N: 432467  AMMONIA INJECTION, INJECTION GRID	C131	C130 S133		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1) -BACT, 12-6-2002]	A195.4, D12.6, D12.7, D12.8, D29.2, E73.2, E179.3, E179.4

\* (1) (1A) (1B) Denotes RECLAIM emission factor  
 (3) Denotes RECLAIM concentration limit  
 (5) (5A) (5B) Denotes command and control emission limit  
 (7) Denotes NSR applicability limit  
 (9) See App B for Emission Limits  
 (2) (2A) (2B) Denotes RECLAIM emission rate  
 (4) Denotes BACT emission limit  
 (6) Denotes air toxic control rule limit  
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
GENERATOR, HEAT RECOVERY STEAM  STEAM TURBINE, STEAM, UNIT NO. 8, COMMON TO GAS TURBINES NO. 9 AND NO. 10, 257 MW (AT 65 DEG. F)					
BURNER, DUCT, NATURAL GAS, LOCATED IN THE HRSG OF TURBINE NO. 10, 286.6 MMBTU/HR A/N: 518035	D142	C138	NOX: MAJOR SOURCE**	CO: 4 PPMV (4) [RULE 1303(a) (1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 0.2 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart Da, 10-4-1991]; NOX: 2 PPMV NATURAL GAS (4) [RULE 2005, 5-6-2005]; PM: 0.01 GRAINS/SCF (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.03 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart Da, 10-4-1991]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR (5B) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO <sub>2</sub> : (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SOX: 0.2 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart Da, 10-4-1991]; VOC: 2 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.2, A99.2, A99.3, A195.1, A195.2, A195.3, A327.1, A433.1, B75.1, D29.4, D29.5, D82.1, D82.2, D372.1, E57.1, E193.1, K40.3, K67.4

\* (1) (1A) (1B) Denotes RECLAIM emission factor  
 (3) Denotes RECLAIM concentration limit  
 (5) (5A) (5B) Denotes command and control emission limit  
 (7) Denotes NSR applicability limit  
 (9) See App B for Emission Limits  
 (2) (2A) (2B) Denotes RECLAIM emission rate  
 (4) Denotes BACT emission limit  
 (6) Denotes air toxic control rule limit  
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
STACK, SERVING UNIT NO. 10, HEIGHT: 140 FT ; DIAMETER: 19 FT A/N: 518035	S141	C139			
CO OXIDATION CATALYST, SERVING UNIT NO. 10, HITACHI, MITSUBISHI, PEERLESS OR EQUAL, HEIGHT:61 FT; LENGTH:26 FT; WIDTH:4 FT; WITH 6344 CUBIC FEET OF CATALYST VOLUME A/N: 432466	C138	D134 C139 D142			
SELECTIVE CATALYTIC REDUCTION, SERVING UNIT NO. 10, HEIGHT: 61 FT; LENGTH:26 FT; WIDTH: 5 FT, WITH 7930 CU FEET OF CATALYST VOLUME WITH A/N: 432466  AMMONIA INJECTION, INJECTION GRID	C139	C138 S141		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1) -BACT, 12-6-2002]	A195.4, D12.6, D12.7, D12.8, D29.2, E73.2, E179.3, E179.4

\* (1) (1A) (1B) Denotes RECLAIM emission factor  
 (2) (2A) (2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5) (5A) (5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
 (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, LEAN BURN, #1, TURBOCHARGED, DIESEL FUEL, CATERPILLAR, MODEL 3516C, WITH A JOHNSON MATTHEY CRT PARTICULATE FILTER, 3622 HP WITH A/N:	D195			CO: 0.67 GRAM/BHP-HR (4) [RULE 1703 - PSD Analysis, 10-7-1988; 40CFR 60 Subpart III, 7-11-2006]; NOX: 3.7 GRAM/BHP-HR (4) [RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; PM10: 0.007 GRAM/BHP-HR (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; VOC: 0.25 GRAM/BHP-HR (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	B61.1, C1.6, D12.12, D12.13, E116.2, E193.6, E193.10, E448.1, E448.2, E448.3, I297.2, K67.7
TANK, DIESEL STORAGE, 2,800 GALLONS, SHARED WITH D196	E202				

\* (1) (1A) (1B) Denotes RECLAIM emission factor  
 (3) Denotes RECLAIM concentration limit  
 (5) (5A) (5B) Denotes command and control emission limit  
 (7) Denotes NSR applicability limit  
 (9) See App B for Emission Limits

(2) (2A) (2B) Denotes RECLAIM emission rate  
 (4) Denotes BACT emission limit  
 (6) Denotes air toxic control rule limit  
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: POWER GENERATION</b>					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, LEAN BURN, #2, TURBOCHARGED, DIESEL FUEL, CATERPILLAR, MODEL 3516C, WITH A JOHNSON MATTHEY CRT PARTICULATE FILTER, 3622 HP WITH A/N:	D196			CO: 0.67 GRAM/BHP-HR (4) [RULE 1703 - PSD Analysis, 10-7-1988; 40CFR 60 Subpart III, 7-11-2006]; NOX: 3.7 GRAM/BHP-HR (4) [RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]; NOX: 469 LBS/1000 GAL (1) [RULE 2012, 5-6-2005]; PM: 0.007 GRAM/BHP-HR (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; VOC: 0.25 GRAM/BHP-HR (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	B61.1, C1.6, D12.12, D12.13, E116.2, E193.6, E193.10, E448.1, E448.2, E448.3, I297.3, K67.7
TANK, DIESEL STORAGE, 2,800 GALLONS, SHARED WITH D195	E203				
WASTE WATER SEPARATOR, MAKE: PSI, MODEL: PSC-1000, UNDERGROUND, 6000 GALS/HR; 1000 GALS; DIAMETER: 4 FT ; LENGTH: 15 FT 8 IN A/N:	D201				
<b>Process 2: INORGANIC CHEMICAL STORAGE</b>					
STORAGE TANK, NO. 1, AQUEOUS AMMONIA, CARBON STEEL, 38233 GALS; DIAMETER: 14 FT ; HEIGHT: 38 FT 6 IN A/N: 272086	D34	C40 C41			C157.1, E144.1

- \* (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 2: INORGANIC CHEMICAL STORAGE</b>					
STORAGE TANK, NO. 2, AQUEOUS AMMONIA, CARBON STEEL, 38233 GALS; DIAMETER: 14 FT ; HEIGHT: 38 FT 6 IN A/N: 272087	D35	C40 C41			C157.1, E144.1
STORAGE TANK, NO. 3, AQUEOUS AMMONIA, 38233 GALS; DIAMETER: 14 FT ; HEIGHT: 38 FT 6 IN A/N: 272088	D36	C40 C41			C157.1, E144.1
STORAGE TANK, NO. 4, AQUEOUS AMMONIA, 38233 GALS; DIAMETER: 14 FT ; HEIGHT: 38 FT 6 IN A/N: 272089	D37	C40 C41			C157.1, E144.1
STORAGE TANK, NO. 5, AQUEOUS AMMONIA, 38233 GALS; DIAMETER: 14 FT ; HEIGHT: 38 FT 6 IN A/N: 272090	D38	C40 C41			E144.1
STORAGE TANK, NO. 6, AQUEOUS AMMONIA, 38233 GALS; DIAMETER: 14 FT ; HEIGHT: 38 FT 6 IN A/N: 272091	D39	C40 C41			C157.1, E144.1
SCRUBBER, PACKED BED, NO. 1, VERTICAL PACKED TYPE, POLYPROPYLENE PACKING, HEIGHT: 9 FT 3 IN; DIAMETER: 8 IN A/N: 272090	C40	D34 D35 D36 D37 D38 D39			C8.1, D12.1, K67.2

- \* (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 2: INORGANIC CHEMICAL STORAGE</b>					
SCRUBBER, PACKED BED, NO. 2, VERTICAL PACKED TYPE, POLYPROPYLENE PACKING, HEIGHT: 9 FT 3 IN; DIAMETER: 8 IN A/N: 272090	C41	D34 D35 D36 D37 D38 D39			DI2.1, K67.2
STORAGE TANK, UNIT NO. 1, MAGNESIUM COMPOUNDS, FUEL OIL ADDITIVE, 350 GALS A/N: 410730	D21				
STORAGE TANK, UNIT NO. 2, MAGNESIUM COMPOUNDS, FUEL OIL ADDITIVE, 350 GALS A/N: 410732	D22				
STORAGE TANK, UNIT NO. 5, MAGNESIUM COMPOUNDS, FUEL OIL ADDITIVE, 350 GALS A/N: 410734	D25				
STORAGE TANK, UNIT NO. 6, MAGNESIUM COMPOUNDS, FUEL OIL ADDITIVE, 350 GALS A/N: 471457	D26				
<b>Process 3: PETROLEUM STORAGE</b>					
STORAGE TANK, EXTERNAL FLOATING ROOF, STEAM HEATED, NO. 500,003, FUEL OIL, SINGLE SEAL, 500000 BBL; DIAMETER: 255 FT ; HEIGHT: 56 FT WITH A/N: G02233  FLOATING ROOF  PRIMARY SEAL, METALLIC SHOE	D44				B22.2, H23.1

- |                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>* (1) (1A) (1B) Denotes RECLAIM emission factor<br/>         (3) Denotes RECLAIM concentration limit<br/>         (5) (5A) (5B) Denotes command and control emission limit<br/>         (7) Denotes NSR applicability limit<br/>         (9) See App B for Emission Limits</p> | <p>(2) (2A) (2B) Denotes RECLAIM emission rate<br/>         (4) Denotes BACT emission limit<br/>         (6) Denotes air toxic control rule limit<br/>         (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)<br/>         (10) See section J for NESHAP/MACT requirements</p> |
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\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 3: PETROLEUM STORAGE</b>					
STORAGE TANK, FIXED ROOF, STEAM HEATED, NO. 172,003-A, FUEL OIL, 172000 BBL; DIAMETER: 160 FT ; HEIGHT: 48 FT A/N: C25861	D46				H23.1
STORAGE TANK, FIXED ROOF, STEAM HEATED, NO. 172,001-B, FUEL OIL, 172000 BBL; DIAMETER: 160 FT ; HEIGHT: 48 FT A/N: C25859	D47				H23.1
STORAGE TANK, FIXED ROOF, STEAM HEATED, NO. 172,002-C, FUEL OIL, 172000 BBL; DIAMETER: 160 FT ; HEIGHT: 48 FT A/N: C25860	D48				H23.1
STORAGE TANK, FIXED ROOF, STEAM HEATED, NO. 200,001-D, FUEL OIL, 200000 BBL; DIAMETER: 160 FT ; HEIGHT: 56 FT A/N: C25862	D49				H23.1
STORAGE TANK, FIXED ROOF, STEAM HEATED, NO. 300,001-E, FUEL OIL, 300000 BBL; DIAMETER: 200 FT ; HEIGHT: 56 FT A/N: C25863	D50				H23.1
TANK, UNIT NO. 1, TURBINE LUBE OIL RESERVOIR A/N: 122505	D11	C27		PM: (9) [RULE 404, 2-7-1986]	
TANK, UNIT NO. 1, TURBINE GOVERNOR OIL RESERVOIR A/N: 122505	D12	C27		PM: (9) [RULE 404, 2-7-1986]	

- \* (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 3: PETROLEUM STORAGE</b>					
ELECTROSTATIC PRECIPITATOR, NO. 1, SMOG HOG, MODEL SH-10-PE, TWO STAGE, PENNY TYPE, 60 KW A/N: 122505	C27	D11 D12			D323.1
TANK, UNIT NO. 2, TURBINE LUBE OIL RESERVOIR A/N: 122506	D13	C28		PM: (9) [RULE 404, 2-7-1986]	
TANK, UNIT NO. 2, TURBINE GOVERNOR OIL RESERVOIR A/N: 122506	D14	C28		PM: (9) [RULE 404, 2-7-1986]	
ELECTROSTATIC PRECIPITATOR, NO. 2, SMOG HOG, MODEL SH-10-PE, TWO STAGE, PENNY TYPE, 60 KW A/N: 122506	C28	D13 D14			D323.1
TANK, UNIT NO. 3, TURBINE LUBE OIL RESERVOIR A/N: 122507	D15	C29		PM: (9) [RULE 404, 2-7-1986]	
TANK, UNIT NO. 3, TURBINE GOVERNOR OIL RESERVOIR A/N: 122507	D16	C29		PM: (9) [RULE 404, 2-7-1986]	
ELECTROSTATIC PRECIPITATOR, NO. 3, SMOG HOG, MODEL SH-10-PE, TWO STAGE, PENNEY TYPE, 60 KW A/N: 122507	C29	D15 D16			D323.1
TANK, UNIT NO. 4, TURBINE LUBE OIL RESERVOIR A/N: 122508	D17	C30		PM: (9) [RULE 404, 2-7-1986]	
TANK, UNIT NO. 4, TURBINE GOVERNOR OIL RESERVOIR A/N: 122508	D18	C30		PM: (9) [RULE 404, 2-7-1986]	

- \* (1) (1A) (1B) Denotes RECLAIM emission factor
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (3) Denotes RECLAIM concentration limit
- (4) Denotes BACT emission limit
- (5) (5A) (5B) Denotes command and control emission limit
- (6) Denotes air toxic control rule limit
- (7) Denotes NSR applicability limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (9) See App B for Emission Limits
- (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 3: PETROLEUM STORAGE</b>					
ELECTROSTATIC PRECIPITATOR, NO. 4, SMOG HOG, MODEL SH-10-PE, TWO STAGE, PENNEY TYPE, 60 KW A/N: 122508	C30	D17 D18			D323.1
TANK, UNIT NO. 5, TURBINE LUBE OIL RESERVOIR A/N: 122509	D19	C31		PM: (9) [RULE 404, 2-7-1986]	
ELECTROSTATIC PRECIPITATOR, NO. 5, SMOG HOG, MODEL SH-10-PE, TWO STAGE, PENNEY TYPE, 60 HP A/N: 122509	C31	D19			D323.1
TANK, UNIT NO. 6, TURBINE LUBE OIL RESERVOIR A/N: 122510	D100	C32		PM: (9) [RULE 404, 2-7-1986]	
ELECTROSTATIC PRECIPITATOR, NO. 6, SMOG HOG, MODEL SH-10-PE, TWO STAGE, PENNEY TYPE, 60 KW A/N: 122510	C32	D100			D323.1
<b>Process 4: EMERGENCY POWER</b>					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, ALCO, MODEL 251, 16 CYLINDERS, WITH AFTERCOOLER, TURBOCHARGER, 2500 HP WITH A/N: 451776  GENERATOR, 2000 KW	D53		NOX: PROCESS UNIT**	NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]; PM: (9) [RULE 404, 2-7-1986]	B59.3, C1.3, C177.1, D12.5, E116.1, K67.5
<b>Process 5: ABRASIVE BLASTING</b>					
ABRASIVE BLASTING, OPEN, KELCO, MODEL 124, 600 LBS CAPACITY, TWO NOZZLES, DIAMETER: .31 IN A/N: 123171	D56			PM: (9) [RULE 1140, 2-1-1980; RULE 1140, 8-2-1985; RULE 405, 2-7-1986]	D323.2

- |                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>* (1) (1A) (1B) Denotes RECLAIM emission factor<br/>         (3) Denotes RECLAIM concentration limit<br/>         (5) (5A) (5B) Denotes command and control emission limit<br/>         (7) Denotes NSR applicability limit<br/>         (9) See App B for Emission Limits</p> | <p>(2) (2A) (2B) Denotes RECLAIM emission rate<br/>         (4) Denotes BACT emission limit<br/>         (6) Denotes air toxic control rule limit<br/>         (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)<br/>         (10) See section J for NESHAP/MACT requirements</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 6: BULK TERMINALS</b>					
SUMP, RAINWATER, UNDERGROUND, 420 BBL; WIDTH: 17 FT 6 IN; DEPTH: 7 FT 9 IN; LENGTH: 17 FT 6 IN A/N: 451886	D69				
<b>Process 7: R-219 EXEMPT EQUIPMENT SUBJECT TO SOURCE-SPECIFIC RULES</b>					
RULE 219 EXEMPT EQUIPMENT, ABRASIVE BLASTING EQUIPMENT, GLOVE-BOX, <= 53 FT3, WITH DUST FILTER	E112			PM: (9) [RULE 1140, 2-1-1980; RULE 1140, 8-2-1985; RULE 404, 2-7-1986; RULE 405, 2-7-1986]	D322.1, D381.1, K67.1
RULE 219 EXEMPT EQUIPMENT, AIR CONDITIONING UNITS	E113				H23.5
RULE 219 EXEMPT EQUIPMENT, REFRIGERATION UNITS	E114				H23.6
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E124			ROG: (9) [RULE 1113, 11-8-1996; RULE 1113, 7-13-2007; RULE 1171, 11-7-2003; RULE 1171, 2-1-2008]	K67.3
<b>Process 8: OIL/WATER SEPARATION</b>					
STORAGE TANK, FIXED ROOF, SETTLING TANK, LUBE OIL/WATER, VENTED TO ATMOSPHERE, 6400 GALS; DIAMETER: 12 FT ; HEIGHT: 8 FT WITH A/N: 465115  HEATER, 1 KW	D116				H23.3

- \* (1) (1A) (1B) Denotes RECLAIM emission factor
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (3) Denotes RECLAIM concentration limit
- (4) Denotes BACT emission limit
- (5) (5A) (5B) Denotes command and control emission limit
- (6) Denotes air toxic control rule limit
- (7) Denotes NSR applicability limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (9) See App B for Emission Limits
- (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 8: OIL/WATER SEPARATION</b>					
STORAGE TANK, FIXED ROOF, RETENTION, LUBE OIL/WATER, VENTED TO ATMOSPHERE, 70 GALS; DIAMETER: 2 FT ; HEIGHT: 3 FT 8 IN WITH A/N: 465115  HEATER, 1 KW	D117				H23.3
STORAGE TANK, FIXED ROOF, MECHANICAL SKIMMER, LUBE OIL/WATER, VENTED TO ATMOSPHERE, 595 GALS; DIAMETER: 4 FT 3.24 IN; HEIGHT: 5 FT 7 IN A/N: 465115	D118				H23.3
STORAGE TANK, FIXED ROOF, SKIM, LUBE OIL/WATER, VENTED TO ATMOSPHERE, 90 GALS; WIDTH: 1 FT 6 IN; HEIGHT: 5 FT ; LENGTH: 2 FT A/N: 465115	D119				H23.3
SUMP, WASTE WATER, VENTED TO ATMOSPHERE, 3800 GALS; WIDTH: 6 FT ; HEIGHT: 9 FT 8.4 IN; LENGTH: 8 FT 7 IN WITH A/N: 465115  PUMP, VENTED TO ATMOSPHERE	D120				H23.3
SUMP, WASTE OIL, VENTED TO ATMOSPHERE, 4700 GALS; WIDTH: 5 FT 9.6 IN; HEIGHT: 9 FT 8.4 IN; LENGTH: 11 FT 6 IN A/N: 465115	D122				H23.3

- |                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>* (1) (1A) (1B) Denotes RECLAIM emission factor</li> <li>(3) Denotes RECLAIM concentration limit</li> <li>(5) (5A) (5B) Denotes command and control emission limit</li> <li>(7) Denotes NSR applicability limit</li> <li>(9) See App B for Emission Limits</li> </ul> | <ul style="list-style-type: none"> <li>(2) (2A) (2B) Denotes RECLAIM emission rate</li> <li>(4) Denotes BACT emission limit</li> <li>(6) Denotes air toxic control rule limit</li> <li>(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)</li> <li>(10) See section J for NESHAP/MACT requirements</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 8: OIL/WATER SEPARATION</b>					
STORAGE TANK, WASTE WATER, VENTED TO ATMOSPHERE, 6400 GALS; DIAMETER: 12 FT ; HEIGHT: 8 FT WITH A/N: 465115  HEATER, 1 KW	D123				H23.3
SUMP, CONTAMINATED WATER, COVERED, 3200 GALS; 2 TOTAL A/N: 465115	D154				H23.3
TANK, BOILER FRONT WASTE, 250 GALS A/N: 465115	D155				H23.3

- |                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>* (1) (1A) (1B) Denotes RECLAIM emission factor</li> <li>(3) Denotes RECLAIM concentration limit</li> <li>(5) (5A) (5B) Denotes command and control emission limit</li> <li>(7) Denotes NSR applicability limit</li> <li>(9) See App B for Emission Limits</li> </ul> | <ul style="list-style-type: none"> <li>(2) (2A) (2B) Denotes RECLAIM emission rate</li> <li>(4) Denotes BACT emission limit</li> <li>(6) Denotes air toxic control rule limit</li> <li>(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)</li> <li>(10) See section J for NESHAP/MACT requirements</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

**FACILITY PERMIT TO OPERATE  
LA CITY, DWP HAYNES GENERATING STATION**

**SECTION D: DEVICE ID INDEX**

**The following sub-section provides an index  
to the devices that make up the facility  
description sorted by device ID.**

**FACILITY PERMIT TO OPERATE  
 LA CITY, DWP HAYNES GENERATING STATION  
 SECTION D: DEVICE ID INDEX**

<b>Device Index For Section D</b>			
<b>Device ID</b>	<b>Section D Page No.</b>	<b>Process</b>	<b>System</b>
D1	1	1	1
D4	2	1	1
D7	3	1	1
D9	4	1	1
D11	15	3	0
D12	15	3	0
D13	16	3	0
D14	16	3	0
D15	16	3	0
D16	16	3	0
D17	16	3	0
D18	16	3	0
D19	17	3	0
D21	14	2	0
D22	14	2	0
D25	14	2	0
D26	14	2	0
C27	16	3	0
C28	16	3	0
C29	16	3	0
C30	17	3	0
C31	17	3	0
C32	17	3	0
D34	12	2	0
D35	13	2	0
D36	13	2	0
D37	13	2	0
D38	13	2	0
D39	13	2	0
C40	13	2	0
C41	14	2	0
D44	14	3	0
D46	15	3	0
D47	15	3	0
D48	15	3	0

**FACILITY PERMIT TO OPERATE  
 LA CITY, DWP HAYNES GENERATING STATION  
 SECTION D: DEVICE ID INDEX**

<b>Device Index For Section D</b>			
<b>Device ID</b>	<b>Section D Page No.</b>	<b>Process</b>	<b>System</b>
D49	15	3	0
D50	15	3	0
D53	17	4	0
D56	17	5	0
D69	18	6	0
C73	1	1	1
C74	1	1	1
C75	2	1	1
C76	2	1	1
C77	3	1	1
C78	3	1	1
C79	4	1	1
C80	4	1	1
S96	1	1	1
S97	2	1	1
S98	3	1	1
S99	4	1	1
D100	17	3	0
E112	18	7	0
E113	18	7	0
E114	18	7	0
D116	18	8	0
D117	19	8	0
D118	19	8	0
D119	19	8	0
D120	19	8	0
D122	19	8	0
D123	20	8	0
E124	18	7	0
D125	6	1	2
D129	6	1	2
C130	7	1	2
C131	7	1	2
S133	7	1	2
D134	9	1	2

**FACILITY PERMIT TO OPERATE  
LA CITY, DWP HAYNES GENERATING STATION  
SECTION D: DEVICE ID INDEX**

<b>Device Index For Section D</b>			
<b>Device ID</b>	<b>Section D Page No.</b>	<b>Process</b>	<b>System</b>
C138	10	1	2
C139	10	1	2
S141	10	1	2
D142	9	1	2
D154	20	8	0
D155	20	8	0
D195	11	1	2
D196	12	1	2
D201	12	1	2
E202	11	1	2
E203	12	1	2

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

#### **FACILITY CONDITIONS**

- F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:
- (a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or
  - (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

- F14.1 The operator shall not use fuel oil containing sulfur compounds in excess of 0.05 percent by weight.
- The .05 percent sulfur limit shall not apply to existing supplies of any liquid fuel in storage as of October 1, 1993 until such supply is exhausted.

[RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]

- F14.2 The operator shall not purchase fuel oil containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.
- This condition shall become effective on or after June 1, 2004.

[RULE 431.2, 9-15-2000]

- F16.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

purchase records of fuel oil and sulfur content of the fuel

[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic  
Monitoring, 12-12-1997]

F18.1 Acid Rain SO<sub>2</sub> Allowance Allocation for affected units are as follows:

Device ID	Boiler ID	Contaminant	Tons in any year
1	Boiler No. 1	SO <sub>2</sub>	677
4	Boiler No. 2	SO <sub>2</sub>	335
71	Boiler No. 3	SO <sub>2</sub>	1234
5	Boiler No. 4	SO <sub>2</sub>	994
7	Boiler No. 5	SO <sub>2</sub>	1391
9	Boiler No. 6	SO <sub>2</sub>	1516

a). The allowance allocation(s) shall apply to calendar years 2000 through 2009.

b). The number of allowances allocated to Phase II affected units by U.S. EPA may change in a 1998 revision to 40CFR73 Tables 2,3, and 4. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO<sub>2</sub> allowance allocations identified in this permit (see 40 CFR 72.84)

[40CFR 73 Subpart B, 1-11-1993]

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

**F24.1 Accidental release prevention requirements of Section 112(r)(7):**

a). The operator shall comply with the accidental release prevention requirements pursuant to 40 CFR Part 68 and shall submit to the Executive Officer, as a part of an annual compliance certification, a statement that certifies compliance with all of the requirements of 40 CFR Part 68, including the registration and submission of a risk management plan (RMP).

b). The operator shall submit any additional relevant information requested by the Executive Officer or designated agency.

**[40CFR 68 - Accidental Release Prevention, 5-24-1996]**

### DEVICE CONDITIONS

#### A. Emission Limits

**A63.2 The operator shall limit emissions from this equipment as follows:**

CONTAMINANT	EMISSIONS LIMIT
CO	Less than or equal to 18842 LBS IN ANY ONE MONTH
PM10	Less than or equal to 10784 LBS IN ANY ONE MONTH
VOC	Less than or equal to 4409 LBS IN ANY ONE MONTH
SOX	Less than or equal to 327 LBS IN ANY ONE MONTH

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

The operator shall calculate the emission limit(s) by using calendar monthly fuel use data and the following emission factors: Natural Gas: PM10 = 7.50 lbs/MMscf, VOC = 2.58 lbs/MMscf, and SOx = 0.21 lbs/MMscf. Diesel Fuel: PM10 = 1.67 lbs/Mgal, VOC = 0.52 lbs/Mgal, and SOx = 0.21 lbs/Mgal.

The operator shall calculate the emission limit(s) , after the CO CEMS certification, based on the readings from the certified CO CEMS. In the event the CO CEMS is not operating, has been certification tested but is not certified, or the emissions exceed the valid upper range of the analyzer, the emissions shall be calculated in accordance with the approved CEMS plan. During diesel readiness testing, the CO shall be calculated using the fuel use data and a 24.2 lbs/Mgal emission factor

The operator shall calculate the emission limit(s) for CO in the absence of valid CEMS data, by using the monthly fuel use data and the following factor: Natural Gas: 9.03 lbs/MMscf

For the purposes of this condition, the limit(s) shall be based on the total combined emissions from combined cycle gas turbine No. 10 and it's associated duct burner during any calendar month. The duct burner shall not be operated when the turbine is firing diesel fuel.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D134, D142]

**A63.3 The operator shall limit emissions from this equipment as follows:**

CONTAMINANT	EMISSIONS LIMIT
CO	Less than or equal to 18842 LBS IN ANY ONE MONTH
PM10	Less than or equal to 10784 LBS IN ANY ONE MONTH
VOC	Less than or equal to 4409 LBS IN ANY ONE MONTH
SOX	Less than or equal to 327 LBS IN ANY ONE MONTH

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

The operator shall calculate the emission limit(s) by using calendar monthly fuel use data and the following emission factors: Natural Gas: PM10 = 7.50 lbs/MMscf, VOC = 2.58 lbs/MMscf, and SOx = 0.21 lbs/MMscf. Diesel Fuel: PM10 = 1.67 lbs/Mgal, VOC = 0.52 lbs/Mgal, and SOx = 0.21 lbs/Mgal.

The operator shall calculate the emission limit(s) , after the CO CEMS certification, based on the readings from the certified CO CEMS. In the event the CO CEMS is not operating, has been certification tested but is not certified, or the emissions exceed the valid upper range of the analyzer, the emissions shall be calculated in accordance with the approved CEMS plan. During diesel readiness testing, the CO shall be calculated using the fuel use data and a 24.2 lbs/Mgal emission factor

For the purposes of this condition, the limit(s) shall be based on the total combined emissions from combined cycle gas turbine No. 9 and it's associated duct burner during any calendar month. The duct burner shall not be operated when the turbine is firing diesel fuel.

**[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D125, D129]

A99.1 The 10 PPM NH3 emission limit(s) shall not apply when ammonia injection has not commenced. (NH3 emissions).

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C73, C75]

A99.2 The 2 PPM NOX emission limit(s) shall not apply during turbine startups, diesel readiness testing, or shutdowns. Shutdowns shall not exceed 30 minutes/event. Written records of startups and shutdowns shall be maintained and made available to the AQMD upon request.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

For the purposes of this condition, cold start up shall be defined as a start up which occurs after the steam turbine has been shutdown for 72 hours or more. A non-cold start up shall be defined as a start up which occurs after the steam turbine has been shutdown for less than 72 hours. The beginning of start up occurs at initial fire in the combustor and the end of start up occurs when the BACT levels are achieved. No more than one turbine shall be in cold start-up mode at any one time. The turbines shall not be started on diesel fuel.

For the purposes of this condition, steam turbine shutdown period shall be defined as the number of hours between the closing and reopening of the steam stop valve. The operator shall keep records of the date and time of the steam stop valve opening and closing, and make these records available to AQMD personnel upon request.

**[RULE 2005, 5-6-2005]**

[Devices subject to this condition : D125, D129, D134, D142]

A99.3 The 4 PPM CO emission limit(s) shall not apply during turbine startups, diesel readiness testing, or shutdowns. Shutdowns shall not exceed 30 minutes/event. Written records of startups and shutdowns shall be maintained and made available to the AQMD upon request.

For the purposes of this condition, cold start up shall be defined as a start up which occurs after the steam turbine has been shutdown for 72 hours or more. A non-cold start up shall be defined as a start up which occurs after the steam turbine has been shutdown for less than 72 hours. The beginning of start up occurs at initial fire in the combustor and the end of start up occurs when the BACT levels are achieved. No more than one turbine shall be in cold start-up mode at any one time. The turbines shall not be started on diesel fuel.

For the purposes of this condition, steam turbine shutdown period shall be defined as the number of hours between the closing and reopening of the steam stop valve. The operator shall keep records of the date and time of the steam stop valve opening and closing, and make these records available to AQMD personnel upon request.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D125, D129, D134, D142]

A195.1 The 2 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent oxygen, dry.

[RULE 2005, 5-6-2005]

[Devices subject to this condition : D125, D129, D134, D142]

A195.2 The 4 PPMV CO emission limit(s) is averaged over 60 minutes, at 15 percent oxygen, dry.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D125, D129, D134, D142]

A195.3 The 2 PPMV VOC emission limit(s) is averaged over 60 minutes, at 15 percent oxygen, dry. The limit does not apply during diesel readiness tests.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D125, D129, D134, D142]

A195.4 The 5 PPMV NH3 emission limit(s) is averaged over 60 minutes at 15 percent O2 dry. The operator shall calculate and continuously record the NH3 slip concentration using the following:  $NH_3(ppmv) = [a - b * c / 1E6] * 1E6 / b$ , where a=NH3 injection rate (lb/hr)/17 (lb/lb/mole), b=dry exhaust gas flow rate (lb/hr)/29(lb/lb/mole), and c=change in measured NOx across the SCR (ppmvd at 15 percent O2). The operator shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppm accurate to within +/- 5 percent calibrated at least once every 12 months.

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

The operator shall use the method described above or another alternative method approved by the Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information determination without corroborative data using an approved reference method for the determination of ammonia.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C131, C139]

A195.5 The 5 PPMV NOX emission limit(s) is averaged over 720 operating hours (heat input weighted average).

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

A data acquisition system shall be installed and maintained to continuously calculate and record the NOx ppm based on the 720 operating hour average.

The average shall be calculated based on emissions during all boiler operating hours except during:

1. startups defined as whenever the unit is being brought up to normal operating temperature from an inactive status and the exhaust temperature entering the SCR catalyst is less than 530 degrees F;
2. shutdowns defined as whenever the unit is allowed to cool from a normal operating temperature to inactive status and the exhaust temperature entering the SCR catalyst is less than 530 degrees F;
3. calibration and maintenance periods, Part 75 linearity testing, RATA testing, equipment breakdown periods as defined in Rule 2004, and periods of zero fuel flow.

The heat input weighted average NOx concentration shall be calculated using the following equation, or other equivalent equation.

$PPMV(3\%O_2) = (Et/Qt)*K$ ; where  $PPMV(3\%O_2)$  = the concentration of NOx in PPMV at 3%O<sub>2</sub>; K = a conversion factor from lbs/MMBtu to PPM, which can be determined using EPA 40 CFR60 Method 19. The default K value is 819; Et = Total reported NOx emissions during the averaging period including emissions reported as a result of missing data procedures pursuant to Rule 2012; Qt = Total heat input during the averaging period.

[RULE 2009, 5-11-2001]

[Devices subject to this condition : D1, D4, D7]

A327.1 For the purpose of determining compliance with District Rule 475, combustion contaminant emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 475, 10-8-1976; RULE 475, 8-7-1978]**

[Devices subject to this condition : D125, D129, D134, D142]

A433.1 The operator shall comply at all times with the 2.0 ppm 1 hour BACT limit for NO<sub>x</sub>, except as specified in Conditions A99.2, and for the following operating scenarios::

Operating Scenario	Maximum Hourly Emission Limit	Operational Limit
Cold Start	225 lbs/hr	NO <sub>x</sub> emissions not to exceed 600 lbs total per cold start. Cold start not to exceed 360 minutes total, 4 starts per month, and 48 starts per year per turbine
Non-Cold Start	170 lbs/hr	NO <sub>x</sub> emissions not to exceed 300 lbs total per non cold start. Non cold start not to exceed 180 minutes total, 27 starts per month, and 324 starts per year per turbine

**[RULE 2005, 5-6-2005]**

[Devices subject to this condition : D125, D129, D134, D142]

#### **B. Material/Fuel Type Limits**

B22.2 The operator shall not use this equipment with materials having a(n) true vapor pressure of 1.5 psia or greater under actual operating conditions.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 463, 3-11-1994]**

[Devices subject to this condition : D44]

**B59.1** The operator shall only use the following material(s) in this device :

Air preheater elements that are made of corrosion resistant stainless steel, type 409 or equivalent

A gunite lining in the flue gas duct surfaces between the air preheaters and exhaust stack, except for the turning vanes, expansion joints, and related parts

**[RULE 401, 3-2-1984; RULE 401, 11-9-2001]**

[Devices subject to this condition : D1, D4, D7, D9]

**B59.3** The operator shall only use the following material(s) in this device :

Diesel which meets the specifications of Rule 431.2

**[RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]**

[Devices subject to this condition : D53]

**B61.1** The operator shall only use fuel oil containing the following specified compounds:

Compound	is	ppm by weight

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

total sulfur compounds calculated as H <sub>2</sub> S	less than	15
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**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 6-3-2011; RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]**

[Devices subject to this condition : D195, D196]

**B75.1** The operator shall not use fuel oil in this equipment except under the following circumstance(s):

Interruption in natural gas service due to unforeseeable failure, malfunction, or natural disaster, not resulting from an intentional or negligent act or omission on the part of the owner or operator

For diesel fuel readiness testing not to exceed 60 minutes per turbine per month.

Fuel oil shall be low nitrogen, low sulfur diesel. Sulfur content shall not exceed 15 ppm by weight, or other more stringent limit specified in Rule 431.2. The operator shall keep records of the date diesel was used, the amount of diesel used, and the reason for use. These records shall be kept for a minimum of 5 years and be made available for AQMD inspection upon request.

Vendor specification for the initial and each subsequent shipment of diesel shall be maintained to verify sulfur and nitrogen content. If the vendor information is not available, the operator shall have a sample of each shipment of fuel analyzed by an independent lab for sulfur and nitrogen concentration. These records shall be kept for a minimum of 5 years and be made available for AQMD inspection upon request.

For the above circumstances, diesel fuel shall not be used in this equipment unless water injection is fully employed.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 4-9-1999; RULE 2005, 4-20-2001]**

[Devices subject to this condition : D125, D129, D134, D142]

#### **C. Throughput or Operating Parameter Limits**

**C1.3** The operator shall limit the operating time to no more than 199 hour(s) in any one year.

The 199 hours per year shall include no more than 50 hours in any one year for maintenance and testing purposes.

The operation of the engine beyond the 50 hr/yr allotted for engine maintenance and testing shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the grid operator or electric utility has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a utility service block that is subject to the rotating outage..

Engine operation shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect..

**[RULE 1110.2, 2-1-2008; RULE 1470, 6-1-2007; RULE 2012, 5-6-2005]**

[Devices subject to this condition : D53]

**C1.6** The operator shall limit the operating time to no more than 200 hour(s) in any one year.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

The operation includes no more than 50 hours per year and 1 hour per week for maintenance and testing as required in rule 1470(c)(2).

The operation of the engine beyond the 50 hours per year allotted for engine maintenance and testing shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the electrical grid operator or electric utility has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a utility service block that is subject to the rotating outage. Engine operation shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect.

**[RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(1)-Modeling, 12-6-2002;  
RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1470,  
5-4-2012; 40CFR 60 Subpart IIII, 7-11-2006]**

[Devices subject to this condition : D195, D196]

C8.1 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 2.5 gpm.

To comply with this condition, the operator shall monitor the flow rate as specified in condition number 12-1.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C40]

C157.1 The operator shall install and maintain a pressure relief valve set at 15 psig.

**[RULE 402, 5-7-1976]**

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

[Devices subject to this condition : D34, D35, D36, D37, D39]

- C177.1 The operator shall set and maintain the fuel injection timing of the engine at 4 degrees retarded relative to standard timing.

[RULE 2009, 5-11-2001]

[Devices subject to this condition : D53]

#### **D. Monitoring/Testing Requirements**

- D12.1 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the incoming scrubbing (city) water.

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : C40, C41]

- D12.2 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature at the inlet of each selective catalytic reduction reactor.

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2012, 5-11-2001; RULE 2012, 12-5-2003**]

[Devices subject to this condition : C73, C75, C77, C79]

- D12.3 The operator shall install and maintain a(n) continuous monitoring system to accurately indicate the ammonia injection rate of the ammonia injection system.

The operator shall also install and maintain a device to continuously record the parameter being measured.

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C73, C75, C77, C79]

- D12.5 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

**[RULE 1110.2, 2-1-2008; RULE 2012, 5-6-2005]**

[Devices subject to this condition : D53]

- D12.6 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]**

[Devices subject to this condition : C131, C139]

- D12.7 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]**

[Devices subject to this condition : C131, C139]

D12.8 The operator shall install and maintain a(n) continuous monitoring system to accurately indicate the ammonia injection rate of the ammonia injection system.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C131, C139]

D12.12 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

**[RULE 1304(c)-Offset Exemption, 6-14-1996; RULE 1470, 6-1-2007; 40CFR 60 Subpart III, 7-11-2006]**

[Devices subject to this condition : D195, D196]

D12.13 The operator shall install and maintain a(n) non-resettable totalizing fuel flow meter to accurately indicate the fuel usage of the engine.

**[RULE 2012, 5-6-2005]**

[Devices subject to this condition : D195, D196]

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

**D28.3 The operator shall conduct source test(s) in accordance with the following specifications:**

The test shall be conducted quarterly during the first 12 months after the initial source test, and once a year thereafter.

The District shall be notified of the date and time of the test at least 7 days prior to the test.

Source test shall be conducted when this equipment is using natural gas.

The test shall be conducted by a testing laboratory certified by the California Air Resources Board in the required test methods, and in compliance with District Rule 304 (no conflict of interest).

The test shall be conducted to determine the NH<sub>3</sub> emissions using District method 207.1 measured over a 60 minute averaging time period.

The test shall be conducted to determine the NH<sub>3</sub> emissions using either District method 5.3 or EPA method 17 measured over a 60 minute averaging time period.

The test shall be conducted when the equipment is operating at 80 percent load or greater.

The test shall be conducted and the results submitted to the District within 45 days after the test date.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

**[Devices subject to this condition : C73, C75, C77, C79]**

**D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.**

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

The test(s) shall be conducted at least once each calendar quarter during the first 12 months of operation and at least annually thereafter. The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration limit.

The test shall be conducted when the equipment is operating at 80 percent load or greater.

The test shall be conducted and the results submitted to the AQMD permitting engineer within 45 days after the test date.

The test shall be conducted during natural gas firing.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C131, C139]

D29.4 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
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## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

SOX emissions	Approved District method	District-approved averaging time	Fuel sample
ROG emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	District method 5.2	District-approved averaging time	Outlet of the SCR serving this equipment

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

The test(s) shall be conducted at least once every three years.

For gas turbines only the VOC test shall use the following method: a) Stack gas samples are extracted into Summa canisters, maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of Summa canisters is done with zero gas analyzed/certified to having less than 0.05 ppmv total hydrocarbons as carbon, and c) Analysis of Summa canisters is per EPA Method TO-12 (with pre-concentration) and the canisters temperature when extracting samples for analysis is not to be below 70 deg F.

The use of this alternative VOC test method is solely for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines. Because the BACT level was set using data derived from various source test methods, this alternate method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results must be reported with two significant digits.

The test shall be conducted and the results submitted to the AQMD within 60 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration and emissions limit.

The test shall be conducted when the turbine and duct burner are operating simultaneously at 100 percent of full rated load, when the turbine is operating alone at 100 percent of full rated load, and when the turbine is operating alone at 75 and 50 percent of full rated load for NO<sub>x</sub>, CO, ROG, and NH<sub>3</sub> source tests.

The test shall be conducted when firing natural gas.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

[Devices subject to this condition : D125, D129, D134, D142]

D29.5 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	District method 100.1	30 minutes	Outlet of the SCR serving this equipment

The test shall be conducted when the unit is firing diesel fuel in order to determine the emissions profile of the unit. A minimum of 6 tests shall be performed and the operator shall record the turbine output, ammonia injection rate, and temperature of the exhaust during each test, based on a 30 minute averaging time. Test results shall also include the fuel flow rate (CFH), the flue gas flow rate, and the duct burner fuel use during the test.

The test shall be conducted in order to generate a load curve for NOx (lbs/MW) vs. MW output over the span of tested loads. The operator may, after receiving approval from the AQMD, use this curve to report NOx emissions during the monthly 60 minute (total) diesel readiness testing periods.

**[RULE 2012, 5-6-2005]**

[Devices subject to this condition : D125, D129, D134, D142]

D82.1 The operator shall install and maintain a CEMS to measure the following parameters:

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

CO concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS will convert the actual CO concentrations to mass emission rates (lbs/hr) and record the hourly emission rates on a continuous basis.

The CEMS shall be installed and operated no later than 90 days after initial start up of the turbine, and in accordance with an approved AQMD Rule 218 CEMS plan application. The operator shall not install the CEMS prior to receiving initial approval from AQMD. Within two weeks of the turbine start up date, the operator shall provide written notification to the AQMD of the exact start up.

The CEMS shall be installed and operated to measure CO concentration over a 15 minute averaging time period.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 218, 8-7-1981; RULE 218, 5-14-1999]**

[Devices subject to this condition : D125, D129, D134, D142]

**D82.2 The operator shall install and maintain a CEMS to measure the following parameters:**

NOX concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS shall be installed and operated no later than 12 months after initial start up of the turbine and shall comply with the requirements of Rule 2012. During the interim period between the initial start up and the provisional certification date of the CEMS, the operator shall comply with the monitoring requirements of Rule 2012(h)(2) and 2012(h)(3). Within two weeks prior to the turbine start up date, the operator shall provide written notification to the AQMD of the exact date of start up.

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 2012, 5-6-2005]**

[Devices subject to this condition : D125, D129, D134, D142]

D182.1 The operator shall test this equipment in accordance with the following specifications:

The operator shall collect samples using a 1983 District-approved induct fallout monitor (IFM) every 24 hours beginning from all startups, except for natural gas firing, where if three 24-hour IFM samples show no abnormal collection, subsequent samples can be taken once a week.

The operator shall analyze the IFM samples for acidity, weight, increase of particle size, volume, and appearance, and use the results of the analysis to determine the necessary operational changes to minimize the fallouts, such as, but not limited to, increasing the fuel oil additives and lancing frequencies.

**[RULE 401, 3-2-1984; RULE 401, 11-9-2001]**

[Devices subject to this condition : D1, D4, D7, D9]

D322.1 The operator shall perform annual inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

**[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : E112]

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

D323.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a daily basis, at least, unless the equipment did not operate during the entire daily period. The routine daily inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

SUGGESTED CHAR

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

**FACILITY PERMIT TO OPERATE  
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**SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

**[Devices subject to this condition : C27, C28, C29, C30, C31, C32]**

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

D323.2 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a semi-annual basis, at least, unless the equipment did not operate during the entire semi-annual period. The routine semi-annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : D56]

D371.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever this equipment has combusted one million gallons of diesel fuel, to be counted cumulatively over a five year period. The inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall:

Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three working days (or during the next fuel oil firing period if the unit ceases firing on fuel oil within the three working day time frame) and report any deviations to AQMD.

In addition, the operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- a). Stack or emission point identification;
- b). Description of any corrective actions taken to abate visible emissions;
- c). Date and time visible emission was abated; and
- d). Visible emission observation record by a certified smoke reader.

**[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : D1, D4, D7, D9]

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

D372.1 The operator shall determine compliance with the particulate matter (PM) emission limit by conducting a source test at the outlet of the exhaust stack annually using AQMD Method 5.1. Each test shall include:

(a) One test using natural gas operating at minimum load under normal operating conditions, if natural gas is burned more than 120 consecutive hours or 200 hours accumulated over any 12 consecutive months. The test shall be conducted no later than six months after the time limit has been exceeded;

(b) One test using natural gas operating at maximum load under normal operating conditions, if natural gas is burned more than 120 consecutive hours or 200 hours accumulated over any 12 consecutive months. The test shall be conducted no later than six months after the time limit has been exceeded;

(c) One test using fuel oil operating at maximum load under normal operating conditions, if fuel oil is burned more than 120 consecutive hours or 200 hours accumulated over any twelve consecutive months. The test shall be conducted no later than six months after the time limit has been exceeded.

**[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : D125, D129, D134, D142]

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

D381.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions; and
- 3). Date and time visible emission was abated.

[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : E112]

#### **E. Equipment Operation/Construction Requirements**

E57.1 The operator shall vent this equipment to the SCR and CO control whenever this equipment is in operation.

Ammonia injection shall be used at all times at an injection rate which minimizes NO<sub>x</sub> emissions whenever the exhaust temperature prior to the inlet of the SCR catalyst is 450 degrees F or greater as measured by the temperature gauge required by condition D12.6

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 4-20-2001; RULE 2005, 5-6-2005]**

[Devices subject to this condition : D125, D129, D134, D142]

E73.1 Notwithstanding the requirements of Section E conditions, the operator shall not use ammonia injection if any of the following requirement(s) are met:

1. Whenever the inlet exhaust temperature prior to the SCR reactor is less than 530 degrees Fahrenheit.

**[RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]**

[Devices subject to this condition : C73, C75, C77, C79]

E73.2 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use ammonia injection if all of the following requirement(s) are met:

The inlet exhaust temperature to the SCR is 450 degrees F or less, not to exceed 360 minutes during a cold startup or 180 minutes during a non-cold startup.

During diesel readiness testing.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 4-9-1999; RULE 2005, 4-20-2001]**

[Devices subject to this condition : C131, C139]

E116.1 This engine shall not be used as part of a demand response program using interruptible service contract in which a facility receives a payment or reduced rates in return for reducing its electric load on the grid when requested to do so by the utility or the grid operator.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

[RULE 1470, 6-1-2007]

[Devices subject to this condition : D53]

- E116.2 This engine shall not be used as part of a demand response program using interruptible service contract in which a facility receives a payment or reduced rates in return for reducing its electric load on the grid when requested to do so by the utility or the grid operator.

[RULE 1470, 5-4-2012]

[Devices subject to this condition : D195, D196]

- E144.1 The operator shall vent this equipment, during filling, only to the vessel from which it is being filled.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D34, D35, D36, D37, D38, D39]

- E179.1 For the purpose of the following condition number(s), "continuous monitoring" shall be defined as measuring at least once every 15 minutes, except as allowed by Rule 2000.

Condition Number D 12- 3

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C73, C75, C77, C79]

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

E179.2 For the purpose of the following condition number(s), "continuously record" shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour.

Condition Number D 12- 3

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]**

[Devices subject to this condition : C73, C75, C77, C79]

E179.3 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every hour and shall be calculated upon the average of the continuous monitoring for that month.

Condition Number D 12- 7

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]**

[Devices subject to this condition : C131, C139]

E179.4 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every hour and shall be calculated upon the average of the continuous monitoring for that hour.

Condition Number D 12- 6

Condition Number D 12- 8

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]**

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

[Devices subject to this condition : C131, C139]

E193.1 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

In compliance with all mitigation measures as stipulated by the "Statement of Findings, Statement of Overriding Considerations, and Mitigation Monitoring Plan" and final Environmental Impact Report dated July 16, 2002 (SCH No. 20011121013), and addendum to the FEIR

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D125, D129, D134, D142]

E193.5 The operator shall operate and maintain this equipment according to the following requirements:

The electrical output of Unit 6 shall be limited to 243 MW.

[RULE 1304(c)-Offset Exemption, 6-14-1996]

[Devices subject to this condition : D9]

E193.6 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

In accordance with all air quality mitigation measures stipulated in the Environmental Impact Report (EIR), State Clearing House #2005061111.

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D195, D196]

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

E193.10 The operator shall operate and maintain this equipment according to the following requirements:

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

The operator shall not commence operation of any of the new Units 11-16 until the AQMD certifies that one of the following conditions has been satisfied:

A, The facility has provided 292 lbs/day of federally enforceable PM2.5 emission reduction credits unless a different amount associated with the Repower Project modification at this facility as determined to be required according to the federal New Source Review (NSR) requirements (40CFR Part 51 Subpart Z Appendix S), as approved by both AQMD and EPA.

B. The operator shall comply with a federally enforceable limit of 100 tons per year of PM2.5 emissions.

For purposes of demonstrating compliance with the 100 ton per year limit the operator shall determine the PM2.5 emissions for each of the major sources at the facility by calculating a 12-month rolling average using the following formula:

$$PM2.5 = \frac{(FF1*EF1 + FF2*EF2 + FF9*EF9 + FF10*EF10 + FF11*EF11 + FF12*EF12 + FF13*EF13 + FF14*EF14 + FF15*EF15 + FF16*EF16 + FFD1*EFD1 + FFD2*EFD2)}{2000}$$

Where: PM2.5 = PM2.5 emissions in tons per year, FF1= fuel flow for Unit 1 in MMscf, FF2= fuel flow for Unit 2 in MMscf, FF9= fuel flow for Unit 9 in MMscf, FF10= fuel flow for Unit 10 in MMscf, FF11 to FF16= fuel flow for Units 11 to 16 in MMscf, FFD1 to FFD2 = diesel usage for two black start generator in Mgal.

EF1= emission factor for Unit 1 = 7.14 lb/MMscf, EF2= emission factor for Unit 2 = 6.61 lb/MMscf, EF9= emission factor for Unit 9 = 1.238 lb/MMscf, EF10= emission factor for Unit 10 = 0.968 lb/MMscf, EF11 to EF16 = emission factor for Units 11 to 16 = 6.423 lb/MMscf, EFD1 to EFD2 = emission factor for two black start generator = 0.32 lb/Mgal.

Any changes to these emission factors must be approved in advance by the District in writing and be based on unit specific source tests performed using a District approved testing protocol.

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

**[40CFR Part 51, Appendix S, 10-20-2010]**

**[Devices subject to this condition : D195, D196]**

**E202.1 The operator shall clean and maintain this equipment according to the following specifications:**

The operator shall wash and/or vacuum and then inspect the boiler ducts, stack, and air preheaters during each shutdown in which a boiler is cooled. The operator shall reinspect and perform additional cleaning on these areas as necessary prior to startup.

The operator shall install and maintain a permanent stack washing system in the boiler stack

The operator shall wash the stack prior to start-up each time the boiler is shut down for 48 hours or more

**[RULE 401, 3-2-1984; RULE 401, 11-9-2001]**

**[Devices subject to this condition : D1, D4, D7, D9]**

**E204.1 The operator shall employ the fuel oil additive system according to the following specifications:**

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

The operator shall inject District-approved additives at a rate between 6,500 and 10,500 parts of oil per part of additive, based on volume.

The operator shall inject District-approved additives into the fuel oil whenever fuel oil is burned, as soon as fuel oil firing has stabilized.

The operator shall take corrective action as expeditiously as practicable if there is a failure to comply with either of the above requirements, so that compliance is achieved within 48 hours of such failure; the operator shall switch the unit to natural gas fuel, provided such fuel is available, if such failure is longer than 48 hours, and will remain on natural gas until such time as the failure is corrected.

The operator shall check the flow of fuel oil additive at least once a shift by recording the level of the additive in the holding tank.

**[RULE 401, 3-2-1984; RULE 401, 11-9-2001]**

[Devices subject to this condition : D1, D4, D7, D9]

**E204.2 The operator shall perform a boiler lancing according to the following specifications:**

The operator shall cycle the boiler and air preheater lancing continuously while burning fuel oil and shall commence as soon as oil firing has stabilized; the operator shall continue the lancing cycle for the first 24 hours following a change from fuel oil to natural gas.

The operator shall cycle the air preheater lances and boiler lances once daily and once weekly, respectively, during periods of natural gas burning.

The operator shall repair and return to services individual lances as soon as practicable; the operator shall switch the unit to natural gas, provided such fuel is available, in the event that five or more lances are out of service simultaneously for more than 48 hours, and shall keep the unit on natural gas until such time as the repairs have been completed so that no more than two lances remain out of service.

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

[Devices subject to this condition : D1, D4, D7, D9]

E448.1 The operator shall comply with the following requirements:

The engine and the Johnson Matthey CRT+ diesel particulate filter shall be operated in accordance with CARB Executive Order DE-08-009-04.

The engine shall operate at the load level required to achieve 240  $\sigma$ C for a minimum of 40% of the engine's operating time and a NO<sub>x</sub>/PM ratio of 15 @  $\geq$  300  $\sigma$ C and 20 @  $\leq$  300  $\sigma$ C. The NO<sub>x</sub>/PM ratio shall be at least 8 with a preference for 20 or higher.

The engine shall not operate below passive regeneration temperature for more than 720 consecutive minutes. Regeneration is required after 24 consecutive cold starts and 30-minute idle sessions.

Filter cleaning is required after 150 half-hour cold starts with associated regeneration or 1000 hours of emergency use. The CRTdm, which monitors engine exhaust back pressure and temperature will determine the actual cleaning interval and provide an alert when filter cleaning is required.

The operator shall keep records of any corrective action taken after the CRTdm has notified the operator that a high pressure limit is reached.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1470, 5-4-2012]

[Devices subject to this condition : D195, D196]

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

E448.2 The operator shall comply with the following requirements:

Removal of the diesel particulate filter's filter media for cleaning may only occur under the following conditions:

A. The internal combustion engine shall not be operated for maintenance and testing or any other non-emergency use while the diesel particulate filter media is removed; and

B. The diesel particulate filter's filter media shall be returned and re-installed within 10 working days from the date of removal; and

C. The owner or operator shall maintain records indicating the date(s) the diesel particulate filter's filter media was removed for cleaning and the date(s) the filter media was re-installed. Records shall be retained for a minimum period of 36 months.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1470, 5-4-2012]

[Devices subject to this condition : D195, D196]

E448.3 The operator shall comply with the following requirements:

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

**The operator shall comply with the terms and conditions set forth below:**

The engine shall comply with the emission standards specified in 40 CFR 60.4204(b) and 4205(b). The operator must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4204(b), or 4205(b) or (c), as applicable, for the model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

The engine and the control device shall be operated and maintained in accordance with the manufacturer's written emission-related instructions or procedures developed by the operator that are approved by the engine manufacturer. Changes to those emission-related settings that are set by the manufacturer are not allowed.

[40CFR 60 Subpart III, 7-11-2006]

[Devices subject to this condition : D195, D196]

#### H. Applicable Rules

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	463

[RULE 463, 3-11-1994]

[Devices subject to this condition : D44, D46, D47, D48, D49, D50]

H23.3 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	464

## FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

### SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[RULE 464, 12-7-1990]

[Devices subject to this condition : D116, D117, D118, D119, D120, D122, D123, D154, D155]

H23.5 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Refrigerants	District Rule	1415

[RULE 1415, 10-14-1994]

[Devices subject to this condition : E113]

H23.6 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Refrigerants	40CFR82, SUBPART	B
Refrigerants	District Rule	1411

[RULE 1411, 3-1-1991; 40CFR 82 Subpart B, 7-14-1992]

[Devices subject to this condition : E114]

#### I. Administrative

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

I297.2 This equipment shall not be operated unless the facility holds 4064 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. RTCs held to satisfy this condition may be transferred only after one year from the initial start of operation. If the hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

**[RULE 2005, 5-6-2005; RULE 2005, 6-3-2011]**

[Devices subject to this condition : D195]

I297.3 This equipment shall not be operated unless the facility holds 4064 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. RTCs held to satisfy this condition may be transferred only after one year from the initial start of operation. If the hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

**[RULE 2005, 5-6-2005; RULE 2005, 6-3-2011]**

[Devices subject to this condition : D196]

#### **K. Record Keeping/Reporting**

K40.3 The operator shall provide to the District a source test report in accordance with the following specifications:

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv), corrected to 15 percent oxygen, dry basis.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Emission data shall be expressed in terms of mass rate (lbs/hr). In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

Source test results shall also include fuel flow and exhaust gas rate under which the test was conducted.

Source test results shall also include turbine and generator output under which the test was conducted.

Emission data shall be expressed in terms of lbs/MM cubic feet.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 2005, 4-9-1999; RULE 2005, 4-20-2001]**

[Devices subject to this condition : D125, D129, D134, D142]

K40.4 The operator shall provide to the District a source test report in accordance with the following specifications:

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

Source test results shall be submitted to the District no later than 180 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv), corrected to 3 percent oxygen, dry basis.

Emission data shall be expressed in terms of mass rate (lbs/hr). In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

Source test results shall also include the fuel flow rate (CFM) under which the test was conducted.

Source test results shall also include the flue gas flow rate (SCFM) under which the test was conducted.

Source test results shall also include the utility boiler exhaust temperature (degrees Fahrenheit), before the SCR reactors, under which the test was conducted.

Source test results shall also include the NH<sub>3</sub> injection rate (lb/hr), upstream of the SCR reactor, under which the test was conducted.

Source test results shall also include the NH<sub>3</sub>/NO<sub>x</sub> molar ratio under which the test was conducted.

Source test results shall also include the net utility boiler and steam turbine electric generator output (MW) under which the test was conducted.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 2012, 5-6-2005]**

[Devices subject to this condition : C79]

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

K67.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

the name of the person performing the inspection and/or maintenance of the dust collector

the date, time and results of the inspection

the date, time and description of any maintenance or repairs resulting from the inspection

**[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : E112]

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The operator shall monitor and record on a daily basis the flowrate of the incoming scrubbing (city) water when this scrubber is operated

**[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : C40, C41]

K67.3 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

For architectural applications where no thinners, reducers, or other VOC containing materials are added, maintain semi-annual records for all coating consisting of (a) coating type, (b) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings, (c) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.

For architectural applications where thinners, reducers, or other VOC containing materials are added, maintain daily records for each coating consisting of (a) coating type, (b) VOC content as applied in grams per liter (g/l) of materials used for low-solids coatings, (c) VOC content as applied in g/l of coating, less water and exempt solvent, for other coatings.

**[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : E124]

K67.4 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Natural gas and Diesel fuel usage after CEMS certification.

The date, time, duration, and CEMS minute data for start-ups. These records shall be maintained and made available upon request from AQMD

**[RULE 2012, 5-6-2005]**

[Devices subject to this condition : D125, D129, D134, D142]

K67.5 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

Date of operation, the elapsed time, in hours, and the reason for operation. Records shall be kept and maintained on file for a minimum of two years and made available to district personnel upon request.

An engine operating log listing on a monthly basis the emergency use hours of operation, maintenance and testing hours of operation, and any other hours of use with a description of the reason for operation. Additionally, each time the engine is started manually, the log shall include the date of operation and the timer reading in hours at the beginning and end of operation.

The log shall be kept for a minimum of three calendar years prior to the current year and be made available to District personnel upon request. The total hours of operation for the previous calendar year shall be recorded sometime during the first 15 days of January of each year.

[RULE 1110.2, 2-1-2008; **RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996;**  
RULE 1470, 6-1-2007]

[Devices subject to this condition : D53]

**K67.7** The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

## **FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION**

### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

**The operator shall comply with the terms and conditions set forth below:**

The operator shall keep a log of engine operations documenting the total time the engine is operated each month and the specific reason for operation as: A) Emergency Use, B) Maintenance and Testing, or C) Other (be specific)

In addition, for each time the engine is manually started, the log shall include the date of engine operation, the specific reason for operation, and the totalizing hour meter reading (in hours and tenths of hours) at the beginning and the end of the operation.

On or before January 15th of each year the operator shall record in the engine operating log: A) the total hours of engine operation for the previous calendar year, and B) the total hours of engine operation for maintenance and testing for the previous calendar year.

Records shall be kept and maintained on file for a minimum of five years and made available to district personnel upon request.

**[RULE 1304(c)-Offset Exemption, 6-14-1996; RULE 1470, 5-4-2012; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40CFR 60 Subpart III, 7-11-2006]**

[Devices subject to this condition : D195, D196]

**K171.1 The operator shall notify the District if any of the following situations occur:**

**When fuel oil is fired in this equipment**

This notification shall be provided to the District no later than 48 hours after fuel oil is fired in this boiler.

**[RULE 401, 3-2-1984; RULE 401, 11-9-2001]**

[Devices subject to this condition : D1, D4, D7, D9]