PERMIT TO OPERATE

COMPANY NAME AND ADDRESS

LA DWP Harbor Generation Station
161 N. Island Avenue
Wilmington, CA 90744
SCAQMD ID #800170

Contact: Bruce Moore (213) 367-3772

EQUIPMENT LOCATION

LA DWP Harbor Generation Station
161 N. Island Avenue
Wilmington, CA 90744

EQUIPMENT DESCRIPTION

Section D of the Facility Permit, ID# 800170, Facility Description and Equipment Conditions

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
PROCESS 1: INTERNAL COMBUSTION; POWER GENERATION					
SYSTEM 1: SIMPLE CYCLE TURBINES					
TURBINE, GAS, NO. 10, DIESEL FUEL, NATURAL GAS, GE, MODEL LM6000 ENHANCED SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, LOW NITROGEN FUEL, 466.8 MMBTU/HR, WITH: A/N: ~~463093~~, 477853	D101	C103, C105	NOx: MAJOR SOURCE	**CO**: 6 PPMV (4) [RULE 1303-BACT]; **CO**: 2,000 PPMV (5) [RULE 407] **NOx**: 5 PPMV (4) [RULE 2005, RULE 2012]; **NOx**: 130.3 PPMV FUEL OIL (8) [40CFR 60 SUBPART GG]; **NOx**: 34 LBS/HR (4) [RULE 2005, RULE 2012]; **NOx**: 114.5 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG]	A63.2, A99.9, A99.10, A99.11, A195.8, A195.9, A327.1, B75.1, C1.6, C6.2, D12.7, D29.2,

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
GENERATOR, (LIMITED BY TURBINE OUTPUT TO 47.4 MW), 60.5 MW				**PM**: 11 LBS/HR (5B) [RULE 475]; **PM**: 0.01 GRAINS/SCF (5A) [RULE 475]; **PM**: 0.1 GRAINS /SCF (5) [RULE 409] **SO2**: (9) [40CFR 72 – ACID RAIN PROVISION]; **SOx**: 150 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG] **VOC**: 2 PPMV (4) [RULE 1303-BACT]	D29.3, D82.2, D82.3, E57.1, E73.2, H23.7, I296.1
STACK, TURBINE NO. 10 WITH: A/N: ~~463093~~, 477853	S106				
TURBINE, GAS, NO. 11, DIESEL FUEL, NATURAL GAS, GE, MODEL LM6000 ENHANCED SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, LOW NITROGEN FUEL, 466.8 MMBTU/HR, WITH: A/N: ~~463094~~, 477854 GENERATOR, (LIMITED BY TURBINE OUTPUT TO 47.4 MW), 60.5 MW	D107	C109, C111	NOx: MAJOR SOURCE	**CO**: 6 PPMV (4) [RULE 1303-BACT]; **CO**: 2,000 PPMV (5) [RULE 407] **NOx**: 5 PPMV (4) [RULE 2005, RULE 2012]; **NOx**: 130.3 PPMV FUEL OIL (8) [40CFR 60 SUBPART GG]; **NOx**: 34 LBS/HR (4) [RULE 2005, RULE 2012]; **NOx**: 114.5 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG] **PM**: 11 LBS/HR (5B) [RULE 475]; **PM**: 0.01 GRAINS/SCF (5A) [RULE 475]; **PM**: 0.1 GRAINS /SCF (5) [RULE 409] **SO2**: (9) [40CFR 72 – ACID RAIN PROVISION]; **SOx**: 150 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG] **VOC**: 2 PPMV (4) [RULE 1303-BACT]	A63.2, A99.9, A99.10, A99.11, A195.8, A195.9, A327.1, B75.1, C1.6, C6.2, D12.7, D29.2, D29.3, D82.2, D82.3, E57.1, E73.2, H23.7, I296.1
STACK, TURBINE NO. 11 WITH:	S112				

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
A/N: ~~463094~~, 477854					
TURBINE, GAS, NO. 12, DIESEL FUEL, NATURAL GAS, GE, MODEL LM6000 ENHANCED SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, LOW NITROGEN FUEL, 466.8 MMBTU/HR, WITH: A/N: ~~463095~~, 477855 GENERATOR, (LIMITED BY TURBINE OUTPUT TO 47.4 MW), 60.5 MW	D113	C115, C117	NOx: MAJOR SOURCE	**CO**: 6 PPMV (4) [RULE 1303-BACT]; **CO**: 2,000 PPMV (5) [RULE 407] **NOx**: 5 PPMV (4) [RULE 2005, RULE 2012]; **NOx**: 130.3 PPMV FUEL OIL (8) [40CFR 60 SUBPART GG]; **NOx**: 34 LBS/HR (4) [RULE 2005, RULE 2012]; **NOx**: 114.5 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG] **PM**: 11 LBS/HR (5B) [RULE 475]; **PM**: 0.01 GRAINS/SCF (5A) [RULE 475]; **PM**: 0.1 GRAINS /SCF (5) [RULE 409] **SO2**: (9) [40CFR 72 – ACID RAIN PROVISION]; **SOx**: 150 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG] **VOC**: 2 PPMV (4) [RULE 1303-BACT]	A63.2, A99.9, A99.10, A99.11, A195.8, A195.9, A327.1, B75.1, C1.6, C6.2, D12.7, D29.2, D29.3, D82.2, D82.3, E57.1, E73.2, H23.7, I296.1
STACK, TURBINE NO. 12 WITH: A/N: ~~463095~~, 477855	S118				
TURBINE, GAS, NO. 13, DIESEL FUEL, NATURAL GAS, GE, MODEL LM6000 ENHANCED SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, LOW NITROGEN FUEL, 466.8 MMBTU/HR, WITH: A/N: ~~463096~~, 477856 GENERATOR, (LIMITED BY TURBINE OUTPUT TO 47.4	D119	C121, C123	NOx: MAJOR SOURCE	**CO**: 6 PPMV (4) [RULE 1303-BACT]; **CO**: 2,000 PPMV (5) [RULE 407] **NOx**: 5 PPMV (4) [RULE 2005, RULE 2012]; **NOx**: 130.3 PPMV FUEL OIL (8) [40CFR 60 SUBPART GG]; **NOx**: 34 LBS/HR (4) [RULE 2005, RULE 2012]; **NOx**: 114.5 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG] **PM**: 11 LBS/HR (5B) [RULE 475]; **PM**: 0.01 GRAINS/SCF	A63.2, A99.9, A99.10, A99.11, A195.8, A195.9, A327.1, B75.1, C1.6, C6.2, D12.7, D29.2, D29.3, D82.2, D82.3,

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
MW), 60.5 MW				(5A) [RULE 475]; **PM**: 0.1 GRAINS /SCF (5) [RULE 409] **SO2**: (9) [40CFR 72 – ACID RAIN PROVISION]; **SOx**: 150 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG] **VOC**: 2 PPMV (4) [RULE 1303-BACT]	E57.1, E73.2, H23.7, I296.1
STACK, TURBINE NO. 13 WITH: A/N: ~~463096~~, 477856	S124				
TURBINE, GAS, NO. 14, DIESEL FUEL, NATURAL GAS, GE, MODEL LM6000 ENHANCED SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, LOW NITROGEN FUEL, 466.8 MMBTU/HR, WITH: A/N: ~~463097~~, 477857 GENERATOR, (LIMITED BY TURBINE OUTPUT TO 47.4 MW), 60.5 MW	D125	C127, C129	NOx: MAJOR SOURCE	CO: 6 PPMV (4) [RULE 1303-BACT]; CO: 2,000 PPMV (5) [RULE 407] NOx: 5 PPMV (4) [RULE 2005, RULE 2012]; NOx: 130.3 PPMV FUEL OIL (8) [40CFR 60 SUBPART GG]; NOx: 34 LBS/HR (4) [RULE 2005, RULE 2012]; NOx: 114.5 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG] PM: 11 LBS/HR (5B) [RULE 475]; PM: 0.01 GRAINS/SCF (5A) [RULE 475]; PM: 0.1 GRAINS /SCF (5) [RULE 409] SO2: (9) [40CFR 72 – ACID RAIN PROVISION]; SOx: 150 PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG] VOC: 2 PPMV (4) [RULE 1303-BACT]	A63.2, A99.9, A99.10, A99.11, A195.8, A195.9, A327.1, B75.1, C1.6, C6.2, D12.7, D29.2, D29.3, D82.2, D82.3, E57.1, E73.2, H23.7, I296.1
STACK, TURBINE NO. 14 WITH: A/N: ~~463097~~, 477857	S130				

BACKGROUND

The Los Angeles Department of Water and Power (LADWP) operates the Harbor Generation Station (HGS) for electricity generation. In 2001 LADWP added five peaking units, each a 47 MW GE LM6000 Sprint simple cycle turbine. The gas turbine can be fueled with natural gas, fuel oil or diesel. LADWP installed SCR and CO catalysts for emission controls. AQMD issued permits to construct on May 18, 2001. The units has been in operation since 2002.

In September 2002 LADWP applied to increase the number of gas turbine startups per month to 120. The previous number of startup allowed is one per day, or 30 per month. The changes to the permit were approved under A/N's 407255-259 in September of 2003.

In February 2006 LADWP applied to modify the following operating conditions. It requested to 1) add a condition that would allow an alternative means of measuring NOx emissions during diesel readiness tests, 2) allow exemption to the BACT emission limits during diesel readiness tests and during shutdowns, 3) allow the facility to conduct diesel readiness test without the use of SCR for NOx control, 4) clarify in Condition 82.1 that the CO CEMS is not required to be certified for diesel readiness tests, and 5) modify Condition A63.2 to allow use of an emission factor for calculating CO emissions during diesel readiness test. The application numbers are 463093-097. The District approved the applications and issued the revised permit in November 2006.

LADWP now applies to the District to change gas turbine condition B75.2. LADWP requests that the District modify the permit to allow 60 minutes per month for diesel readiness test. The current permit allows 30 minutes per month.

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

Table 1 Application Numbers

Applications	Facility
477853	LADWP Harbor Unit #10
477854	LADWP Harbor Unit #11
477855	LADWP Harbor Unit #12
477856	LADWP Harbor Unit #13
477857	LADWP Harbor Unit #14
477858	Title V Facility Permit Modification

The applications were received on February 5, 2008. The applications were deemed complete on February 26, 2008. LADWP is a federal Title V facility. It participates in the RECLAIM NOx program.

DISCUSSIONS

1. Proposal to increase diesel readiness test period from 30 minutes per month to 60 minutes per month

The LADWP is required by the Western Electric Coordinating Council (WECC) to periodically perform black-start tests at Harbor and Valley Generating Stations. These tests simulate bringing the stations back on-line after a total blackout. The test begins by starting the emergency diesel engine and using it to startup an LM6000 gas turbine on diesel fuel. The energy from the LM6000 is then used to start other units and eventually the plant's output is synchronized with the power grid. The LADWP also has plans to perform periodic (monthly or quarterly) Fuel Oil Readiness Tests to ensure that the LM6000's are capable of operating on fuel oil in the event of a major emergency that interrupts the supply of natural gas.

The permit allows 30 minutes per month of fuel oil for each LM6000 gas turbine, as specified in Conditions B75.1 and D29.3. Some of the black-start tests have been unsuccessful because all of the test objectives could not be achieved in the time allowed. This is the reason the LADWP has requested that the time allowed for diesel fuel firing be increased from 30 to 60 minutes per month.

Such an increase shall have minimal impacts to the gas turbine's emissions and its environmental impact. It is necessary due to the requirements of ensuring public safety. It is recommended that the request be approved by AQMD. In doing so Conditions B75.1 and D29.3 will be modified accordingly.

2. Modification of A99.9, A99.10 and A99.11

The conditions are modified to specify that a shutdown takes 12 minutes. The original permit did not specify the shutdown duration. However, LADWP requested that shutdown be exempted from BACT emission limits. AQMD had granted the requests. Consequently the permit shall clarify the shutdown period.

3. Annual NOx emissions and RTC requirement

Condition I296.1 specifies the NOx RTC requirement. It is necessary to clearly identify the RTC requirement. The original application A/N374502 had calculated that the anticipated annual NOx emissions will be 91,715 lbs, inclusive of the natural gas and diesel commissioning periods. It is under this threshold that the PSD analysis was performed. Subsequently LADWP requested and the Districted approved to have the number of startups per month increase from 30 to 120, and to adopt a 60% load factor. Thus, in A/N407255 it was calculated the annual NOx emissions will be 62,475 lbs. Taking away the 3,621 lbs emissions associated with the commissioning periods the annual emissions becomes 58,854 lbs.

Considering the 258 lbs of projected annual increase the annual NOx emissions will be 59,112 lbs. Condition I296.1 will be modified accordingly.

COMPLIANCE HISTORY

The following table shows the Notice to Comply issued to the facility in the last five years.

NC	Issue Date	Compliance Request	Status
C61665	06/19/2001	Request to submit Quarterly Emission Certification Report per Rule 2004(b)(1)	In compliance
C61670	08/20/2001	Request for documentation that CEMS for Unit 1 (D43) was down	In compliance
C61673	11/09/2001	Request QA/QC document per Rule 2012 and 2004	In compliance
C61680	09/03/2002	Request to submit Quarterly Emission Certification Report per Rule 2004(b)(1)	In compliance
C61691	03/25/2003	Request to provide transmittal reports for the turbines	In compliance
C61696	09/30/2003	Request for Q4 2001 emission data report	In compliance
C61698	01/06/2004	Request for QA/QC documents for 2002	In compliance
C61699	01/06/2004	Request for QA/QC documents for 2003	In compliance
C92403	07/14/2004	Request to maintain CEMS power for D101	In compliance
C92413	02/08/2005	Request for documentation to explain emission data	In compliance

The next table shows the Notice of Violation issued to the facility in the last five years.

NOV	Issue Date	Compliance Request	Final Action
P16434	05/11/2001	The five peaking turbines were constructed before the P/C was issued	Closed
P12091	01/17/2003	Unit 1 NOx Emission exceeded 9 ppm limit	Closed
P12183	04/01/2004	Unit 1 NOx Emission exceeded 9 ppm limit	In compliance
P16448	01/18/2004	Unit 11 exceeded 5 ppm NOx emissions limit	In compliance

Currently the facility does not have outstanding compliance issues.

EMISSIONS

The emissions of non-RECLAIM pollutants are provided in the next table, as determined in the previous applications A/N374452 and A/N407255. The emissions presented in the table were based on a 60% load factor. A memorandum date May 11, 2001 by Chris Perri is included in the file folder for reference. The proposed change of diesel readiness test condition will not change the monthly total emissions of these pollutants.

Pre Modification and Post Modification Emissions

	CO	PM10	VOC	SOx
Potential to Emit (lb/day), pre-modification	64	44	19	6
Potential to Emit (lb/day), post-modification	64	44	19	6
Emission Increase	0	0	0	0

For NOx emissions that are subject to RECLAIM regulations it is necessary to calculate the hourly emission rate during diesel readiness test. In the previous application A/N374452 the 30-minute process was divided into the first 5 minutes of testing without water injection and the next 25 minutes of testing with water injection.

Pollutant	0-5 Minutes Emission Factor	0-5 Minutes Emission Rate	6-30 Minutes Emission Factor	6-30 Minutes Emission Rate	Total
	lbs/MMBtu	lbs/hr	lbs/ MMBtu	lbs/hr	Lbs
NOx	403 ppm	201.72	42 ppm	43.04	34.74

The hourly emission rate associated with diesel readiness tests is then 34.74 lbs/hour, assuming the gas turbine does not immediately proceed to another firing.

To extend the diesel readiness test to 60 minutes per event the NOx emissions are calculated in the next table.

Pollutant	0-5 Minutes Emission Factor	0-5 Minutes Emission Rate	6-60 Minutes Emission Factor	6-60 Minutes Emission Rate	Total
	lbs/MMBtu	lbs/hr	lbs/ MMBtu	lbs/hr	Lbs
NOx	403 ppm	201.72	42 ppm	43.04	56.26

The maximum hourly NOx emission rate, however, is not associated with diesel readiness testing. As determined in A/N374452 the process of diesel commissioning has the highest hourly emission rate of 200.39 lbs/hr. Therefore, although the hourly NOx emission rate of diesel readiness testing will increase, the gas turbine's maximum hourly emission rate will remain unchanged at 200.39 lbs/hr. There will be no increases in the maximum hourly emission rates.

Annual NOx emissions will increase. As each event will increase NOx emissions by 21.5 lb the yearly emissions will increase by 258 lbs. As determined in A/N407255 the annual emissions was 62,475 lbs, including 3,621 lbs from the commissioning periods. Since the commissioning periods have expired the annual emissions are:

6,2475 – 3,621 = 58,854 lbs/year

The new annual emissions will be:

58,854 + 258 = 59,112 lbs/year

RULES EVALUATION

40CFR Part 60 Subpart GG – NSPS for Gas Turbines

This regulation applies to the turbine generator since the heat input is greater than 10.7 gigajoules per hour. Based on the calculations of A/N374502 the turbine shall be subject to the following emissions limits.

NOx = 114.5 ppmv natural gas firing
= 130.3 ppmv diesel firing
SOx = 150 ppmv

Compliance is expected for normal operation using natural gas. For operation using diesel the average emissions during the first hour is about 56 lb/hour which is equivalent to 55 ppmv, even though the first five minutes could be as high as 403 ppmv. Compliance is expected.

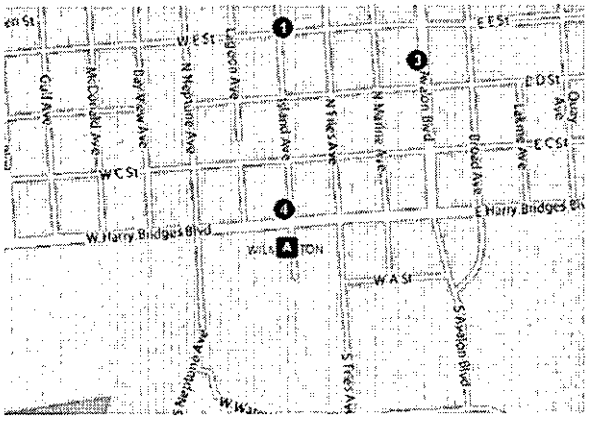
40CFR Part 64 – Compliance Assurance Monitoring (CAM)

The CAM regulation applies to major stationary sources which use control equipment to achieve specified emission limits, such as the BACT limits. The turbine needs to comply with the NOx, CO, and VOC BACT emissions limits. Control equipments are used for NOx and CO emissions control, but not for VOC emissions. Therefore, the regulation applies to NOx and CO emissions control.

Since the turbine has installed NOx and CO CEMS the exemption of 64.2(b)(vi) applies. The CAM requirement is satisfied.

Rule 212 – Standards for Approving Permits

As shown in the map below there is no school within 1,000 feet of the facility boundary. The closest school is more than a half mile away. In addition, there is no emission increase from the proposed change of conditions. Public notice is not required.



1. Island Elementary School **0.35 miles**
500 Island Avenue
Wilmington, CA 90744
Phone: (310) 847-1400

3. LI'l Cowpoke Preschool **0.3 miles**
445 N Avalon Blvd
Wilmington, CA 90744
Phone: (310) 847-1801

4. **Wilmington Skill Center**
Not a school

Rule 218 – Continuous Emissions Monitoring

The turbine is required by this rule to have a CO CEMS to verify CO emissions meet the hourly and daily emission limits. The facility has installed a CO CEMS, and has obtained District's approval of the CEMS.

Rule 401 – Visible Emissions

Visible emissions are not expected under normal operating conditions of the turbine.

Rule 402 – Nuisance

Nuisance problems are not expected under normal operating conditions of the turbine.

RULE 407 – Liquid and Gaseous Air Contaminants

This rule limits the CO emissions to a maximum of 2,000 ppm, and the sulfur content of the exhaust to 500 ppm for equipment not subject to the emission concentration limits of 431.1. Since the turbines are subject to the limits of Rule 431.1, only the 2,000 ppm CO limit applies. The turbine has a BACT CO emission limit of 6.0 ppmv. This limit is achieved with an oxidation catalyst. It also has a CO CEMS. Compliance is anticipated and will be verified through the CEMS data.

RULE 409 – Combustion Contaminants

The rule limits PM emissions to 0.1 gr/scf at 12% CO_2. The previous application has determined that the equipment is expected to comply with this. The proposed change of conditions does not affect compliance with this rule.

RULE 431.1 – Sulfur Content of Natural Gas

The rule requires that gas fired equipment meet a sulfur content limit of 40 ppm on a 4 hour averaging time. LADWP is using pipeline quality natural gas. Pipeline quality natural gas has a sulfur content (measured as H_2S) of less than 1 grain per 100 cubic feet, or about 16 ppm. Thus, compliance is expected.

RULE 431.2 – Sulfur Content of Liquid Fuels

The rule requires that any diesel fuel combusted in the turbine must not exceed 15 ppm sulfur. LADWP is required by permit condition to use 15 ppm low sulfur fuel in order to meet BACT requirements. Therefore, compliance with this rule's limit is expected.

RULE 475 –Electric Power Generating Equipment

The rule requires that power generating equipment having a net power of more than 10MW and installed after May 7, 1976 must not emit combustion contaminants exceeding either the mass limit of 11 lbs/hr or the concentration limit of 0.01 grains/dscf. As determined by the previous application mass PM10 emissions from the turbine are estimated at 3.08 lbs/hr, and 0.00564 gr/scf during natural gas firing, and 5.60 lbs/hr and 0.0102 gr/scf during diesel firing. Compliance is anticipated and will be demonstrated through the initial source test.

REGULATION XIII – New Source Review for Non-RECLAIM Pollutants

New source review (NSR) is required for new or modifying existing source if there are increases in the source's potential to emit, which is the monthly averaged emission rates. Since the turbine will continue to be subject to Condition A63.2, which limits the monthly total emissions of CO, PM10, VOC, and SOx, the potential to emission will not increase. This regulation does not apply to the proposed change of conditions.

RULE 1401 – New Source Review for Toxic Air Contaminants

There are toxic air contaminants released from the gas turbine. At the time when AQMD issued the permit to construct the applicant assessed health risks from the toxic air contaminants emissions. The assessment included diesel commissioning, diesel readiness tests, and normal operation. The proposed change of conditions will not require additional modeling analysis. Compliance is expected.

REGULATION XVII – Prevention of Significant Deterioration (PSD)

The South Coast Air Basin is in attainment for NOx, CO, and SOx emissions. PSD regulations apply to these pollutants. The proposed change of conditions will not increase the yearly emissions of CO and SOx. The proposed modification of the diesel readiness test could potentially increase the annual NOx emissions by 258 lbs. The annual NOx emissions will be 59,112 lbs. However, the facility conducted the PSD analysis under the initial application A/N374502 which has an annual emissions of 91,715 lbs. This regulation does not apply to the proposed change of condition.

Rule 2005 – New Source Review for RECLAIM Pollutants

The facility participates in the NOx RECLAIM program. NOx emissions are subject to RECLAIM rules, including the new source review.

- BACT and Modeling

BACT review and modeling analysis will be triggered if there is an increase of hourly emission rate. The current maximum hourly NOx emissions was calculated based on diesel commissioning. The increase of diesel readiness testing to 1 hour per month will not increase the maximum hourly emission rate. BACT review and modeling analysis are not required for the proposed change of conditions.

- Offset

The proposed change of conditions could increase annual NOx emissions by 258 lbs/year. LADWP have sufficient RTC to provide offset if needed.

Regulation XXX – Title V

The DWP Harbor facility is currently subject to the Title V requirements. The final "initial" Title V permit was issued on January 5, 2001. The change of conditions is considered a minor permit revision according to the definition provided in Rule 3000(b)(12). As required, EPA is afforded the opportunity to review and comment on the project within a 45 day review period.

RECOMMENDATION

The equipment is expected to comply with all the federal, state, and local regulations. It is recommended that the District approves the requested change of conditions.

CONDITIONS

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

CONTAMINANT	EMISSIONS LIMIT
CO	Less than 1,920 LBS IN ANY ONE MONTH
PM10	Less than 1,320 LBS IN ANY ONE MONTH
VOC	Less than 570 LBS IN ANY ONE MONTH
SOX	Less than 180 LBS IN ANY ONE MONTH

The operator shall calculate the emission limit(s) by using monthly fuel use data, and the following emission factors: Natural Gas: VOC - 2.88 lbs/MMSCF, PM10 - 6.93 lbs/MMSCF, and SOx - 0.83 lbs/MMSCF. Diesel: VOC - 1.11 lbs/Mgal, PM10 - 1.67 lbs/Mgal, and SOx - 7.02 lbs/Mgal. For natural gas firing compliance with the CO emission limit shall be verified through CEMS data. For diesel firing compliance with the CO emission limit shall be calculated using the fuel usage data and the lb/Mgal emission factor.

[RULE 1303(a)(1)-BACT]

[Devices subject to this condition: D101, D107, D113, D119, D125]

A99.9 The 34 lbs/hr NOx emission limit(s) shall only apply during turbine start-ups. ~~Start-up shall not exceed 1 hour per occurrence.~~ The limit does not apply during diesel readiness testing.

[Rule 2005]

[Devices subject to this condition: D101, D107, D113, D119, D125]

A99.10 The 5.0 PPM NOx emission limit(s) shall not apply during startup, shutdown, and diesel readiness tests. Startup time shall not exceed 1 hour per occurrence and shutdown time shall not exceed 12 minutes per occurrence. The 5.0 ppmv NO_x emission limit shall apply at all other operating times.

[RULE 2005]

[Devices subject to this condition: D101, D107, D113, D119, D125]

A99.11 The 6.0 PPM CO emission limit(s) shall not apply during startup, shutdown, and diesel readiness tests. Startup time shall not exceed 1 hour per occurrence and shutdown time shall not exceed 12 minutes per occurrence. The 6.0 ppmv CO emission limit shall apply at all other operating times.

[RULE 1303(a)(1)-BACT,]

[Devices subject to this condition: D101, D107, D113, D119, D125]

A195.8 The 5 PPM NOx emission limit(s) is averaged over 3 hours at 15 percent oxygen, dry.

[RULE 2005]

[Devices subject to this condition: D101, D107, D113, D119, D125]

A195.9 The 6 PPM CO emission limit(s) is averaged over 3 hours at 15 percent oxygen, dry.

[RULE 1303(a)(1)-BACT]

[Devices subject to this condition: D101, D107, D113, D119, D125]

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.

[RULE 475]

[Devices subject to this condition: D101, D107, D113, D119, D125]

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

1). 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.

2). for diesel fuel readiness testing not to exceed ~~1/2~~ 1 hour per month.

Fuel oil shall be low nitrogen low sulfur diesel. Sulfur content shall not exceed 15 ppm. Nitrogen content shall not exceed 30 ppm. The operator shall keep records of the date diesel was used, the amount of diesel used, and the reason for use

3) during required initial certification and RATA testing specified by AQMD rules. Fuel oil shall be low nitrogen low sulfur diesel. Sulfur content shall not exceed 15 ppm. Nitrogen content shall not exceed 30 ppm.

The operator shall keep records of the date diesel was used, the amount of diesel used, and the reason for use.

Vendor specifications for the initial and each subsequent shipment of diesel shall be maintained to verify sulfur and nitrogen content. If the vendor information is 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.

[RULE 1303(a)(1)-BACT; RULE 2005]

[Devices subject to this condition: D101, D107, D113, D119, D125]

C1.6 The operator shall limit the fuel usage to no more than 192.1 MM cubic feet per month.

To comply with this condition, the operator shall install and maintain a(n) non-resettable totalizing fuel flow meter to accurately indicate the fuel usage of the turbine.

The purpose(s) of this condition is to ensure compliance with Rule 1303 Offsets. The fuel use records shall be maintained for a minimum of 5 years. The operator shall submit to the AQMD monthly fuel use data at the end of each month during the first 12 months of operation.

[RULE 1303(b)(2)-Offset]

[Devices subject to this condition: D101, D107, D113, D119, D125]

C6.2 The operator shall use this equipment in such a manner that the power output being monitored, as indicated below, does not exceed 47.4 MW.

To comply with this condition, the operator shall install and maintain a(n) measuring device to accurately indicate the power output of the turbine.

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. The averaging time to determine compliance with the limit shall be 1 hour.

[RULE 1303(b)(2)-Offset]

[Devices subject to this condition: D101, D107, D113, D119, D125]

D12.7 The operator shall install and maintain a(n) measuring device to accurately indicate the water-to-fuel ratio of the turbine.

[RULE 2012; 40CFR 60 Subpart GG, 3-6-1981]

[Devices subject to this condition: D101, D107, D113, D119, D125]

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

Pollutant(s) to be tested	Required Test Method(s)	Avg. Time	Test Location
NH3 emissions	Approved District Method	1 hour	Outlet

The test shall be conducted at least quarterly during the first 12 months of operation of the SCR, and at least annually thereafter.

The test shall be conducted to determine the NH3 emissions at the outlet using District method 207.1 measured over a 60 minute averaging time period. 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.

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(b)(2)-Offset]

[Devices subject to this condition: D101, D107, D113, D119, D125]

D29.3 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant to be tested	Required Test Method	Avg. Time	Test Location
NOx emissions	District method 100.1	15 minutes	Outlet

The test shall be conducted when the unit is firing diesel fuel in order to determine the emissions profile of the unit. The SCR is not required to be operational during the tests. 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 an average time of 15 minutes. Test results shall also include the fuel flow rate (CFH) and the flue gas flow rate 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 ~~30~~ 60 minutes (total) diesel readiness testing periods.

[RULE 2012]

[Devices subject to this condition: D101, D107, D113, D119, D125]

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

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 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.

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

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

CO Emission Rate, lbs/hr = K*Cco*Fd*[20.9/(20.9-%O2d)]*[Qg*HHV], where:

K = 7.267 *10-2

Cco = Average of four consecutive 15-min. average CO concentration in ppm

Fd = 8710 dscf/mmbtu natural gas

%O2d = Hourly average percentage by volume O2 dry, corresponding to Cco

Qg = Fuel gas usage during the hour, scf/hr

HHV = Higher Heating Value of fuel gas, Btu/scf.

[RULE 1303(a)(1)-BACT; RULE 218]

[Devices subject to this condition: D101, D107, D113, D119, D125]

D82.3 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 operating no later than 12 months after the initial start-up of the turbine and shall comply with all 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 2 weeks of the turbine start-up date, the operator shall provide written notification to the District of the exact date of start-up

[RULE 2012]

[Devices subject to this condition: D101, D107, D113, D119, D125]

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

[RULE 1303(a)(1)-BACT; RULE 2005,]

[Devices subject to this condition: D101, D107, D113, D119, D125]

E73.2 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use ammonia injection when the inlet exhaust temperature to the SCR reactor is 800 Deg F or less, not to exceed 1 hour during start ups:

[RULE 1303(a)(1)-BACT; RULE 402]

[Devices subject to this condition: D101, D107, D113, D119, D125]

H23.7 this equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Sulfur compounds	District Rule	431.1

[RULE 431.1]

[Devices subject to this condition: D101, D107, D113, D119, D125]

I296.1 This equipment shall not be operated unless the operator demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the

commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.

To comply with this condition, the operator shall, prior to the beginning of all compliance years, hold a minimum NOx RTCs of 59,112 lbs. In accordance with Rule 2005(f), unused RTC's may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the 1st compliance year.

[RULE 2005]

[Devices subject to this condition: D101, D107, D113, D119, D125]