

South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

December 29, 2010

Mr. Mark Sedlacek
Director of Environmental Affairs
Los Angeles Department of Water and Power (LADWP)
111 North Hope Street, Room 1050
Los Angeles, CA 90012

SUBJECT: LADWP Haynes Generation Station (Facility ID 800074)
RECLAIM/Title V/PSD Facility Permit Revision

Dear Mr. Sedlacek:

Please find attached the revised Title Page, Table of Contents, and Section H of the RECLAIM/Title V/PSD Facility Permit for LADWP Haynes Generation Station located at 6801 2nd Street, Long Beach, CA 90803. The revised sections reflect the approval of the permit revision requested in your Application No. 495663 for Haynes Repowering Project. The proposed permit revision was submitted to EPA for review on November 23, 2010 and EPA's review period ended December 29, 2010. This permit revision includes the addition of the equipment identified in Attachment 1.

Please review the attached sections carefully. Insert the enclosed sections into your RECLAIM/Title V/PSD Facility Permit and discard the earlier version. Questions concerning changes to your permit should be directed to Mr. Li Chen at (909) 396-2426.

Sincerely,

Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance

MN:BLY:Approval Letter
Attachment

cc: Gerardo Rios, EPA Region IX (R9AirPermitsSC@epa.gov)
Bruce Moore, LADWP
Brian Yeh, AQMD
Ed Pupka, AQMD

Attachment 1

Equipment	Application No.	Device No.	Process/ System	Permit Type
Gas Turbine Generator Unit 11	495664	D159	1/2	PC
Gas Turbine Generator Unit 12	495665	D165	1/2	PC
Gas Turbine Generator Unit 13	495666	D171	1/2	PC
Gas Turbine Generator Unit 14	495667	D177	1/2	PC
Gas Turbine Generator Unit 15	495668	D183	1/2	PC
Gas Turbine Generator Unit 16	495669	D189	1/2	PC
Diesel Storage Tank	495672	D197	1/2	PC
Waste Oil/Water Separator No. 1	495673	D198	1/2	PC
Waste Oil/Water Separator No. 2	495674	D199	1/2	PC
Waste Oil/Water Separator No. 3	495675	D200	1/2	PC
SCR/CO Catalyst for GTG Unit 11	495978	C161, C162	1/2	PC
SCR/CO Catalyst for GTG Unit 12	495980	C167, C168	1/2	PC
SCR/CO Catalyst for GTG Unit 13	495988	C173, C174	1/2	PC
SCR/CO Catalyst for GTG Unit 14	495989	C179, C180	1/2	PC
SCR/CO Catalyst for GTG Unit 15	495990	C185, C186	1/2	PC
SCR/CO Catalyst for GTG Unit 16	495991	C191, C192	1/2	PC



FACILITY PERMIT TO OPERATE

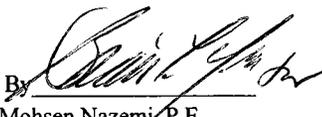
**LA CITY, DWP HAYNES GENERATING STATION
6801 2ND ST
LONG BEACH, CA 90803**

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.
EXECUTIVE OFFICER

By 
Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

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FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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
Process 1: POWER GENERATION					
System 2: TURBINES					
GAS TURBINE, UNIT 11, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, INTERCOOLED, WITH WATER INJECTION, WITH WATER INJECTION, 906.6 MMBTU/HR WITH A/N: 495664 Permit to Construct Issued: 12/29/10	D159	C161		CO: 4 PPMV (4) [RULE 1703 - PSD Analysis, 10-7-1988]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 2.5 PPMV (4) [RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]; NOX: 14.27 PPMV (1A) [RULE 2012, 5-6-2005]; NOX: 25 PPMV (8) [40CFR 60 Subpart KKKK, 7-6-2006]; NOX: 96.94 PPMV (1) [RULE 2012, 5-6-2005]; PM: 0.01 GRAINS/SCF (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR (5B) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 5.8 LBS/HR (4) [RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SO2: 0.9 LBS/MEGAWATT-HOUR (8A) [40CFR 60 Subpart KKKK, 7-6-2006]; VOC: 2 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.4, A99.4, A99.5, A99.6, A195.8, A195.9, A195.10, A327.1, C1.4, C1.5, D29.6, D29.7, D82.3, D82.4, E193.6, E193.7, E193.8, E193.10, I296.2, K40.5, K67.6
GENERATOR, AT 65 F, 102.7 MW					

- * (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.



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Process 1: POWER GENERATION					
CO OXIDATION CATALYST, BASF, SS FOIL WITH ALUMINA WASHCOAT, MODEL CAMEL, 80 MODULES, CATALYST TOTAL VOLUME: 160 CUBIC FEET A/N: 495978 Permit to Construct Issued: 12/29/10	C161	D159 C162			
SELECTIVE CATALYTIC REDUCTION, CORMETECH, MODEL: CMHT-27, WITH 12 MODULES, 1211 CU.FT. WITH A/N: 495978 Permit to Construct Issued: 12/29/10 AMMONIA INJECTION	C162	C161 S164		NH3: 5 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.9, D12.10, D12.11, D29.8, E179.5, E179.6, E193.9
STACK, SERVING UNIT 11, HEIGHT: 150 FT ; DIAMETER: 13 FT 6 IN A/N: 495664 Permit to Construct Issued: 12/29/10	S164	C162			

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
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Process 1: POWER GENERATION					
GAS TURBINE, UNIT 12, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, INTERCOOLED, WITH WATER INJECTION, WITH WATER INJECTION, 906.6 MMBTU/HR WITH A/N: 495665 Permit to Construct Issued: 12/29/10	D165	C167		CO: 4 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 2.5 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]; NOX: 14.27 PPMV NATURAL GAS (1A) [RULE 2012, 5-6-2005]; NOX: 25 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; NOX: 96.94 PPMV NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: 0.01 GRAINS/SCF NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR NATURAL GAS (5B) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 5.8 LBS/HR (4) [RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SO2: 0.9 LBS/MEGAWATT-HOUR NATURAL GAS (8A) [40CFR 60 Subpart KKKK,	A63.4, A99.4, A99.5, A99.6, A195.8, A195.9, A195.10, A327.1, C1.4, C1.5, D29.6, D29.7, D82.3, D82.4, E193.6, E193.7, E193.8, E193.10, I296.2, K40.5, K67.6

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(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: POWER GENERATION					
GENERATOR, AT 65 F, 102.7 MW				7-6-2006]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	
CO OXIDATION CATALYST, BASF, SS FOIL WITH ALUMINA WASHCOAT, MODEL CAMEL, 80 MODULES, CATALYST TOTAL VOLUME: 160 CUBIC FEET A/N: 495980 Permit to Construct Issued: 12/29/10	C167	D165 C168			
SELECTIVE CATALYTIC REDUCTION, CORMETECH, MODEL: CMHT-27, WITH 12 MODULES, 1211 CU.FT. WITH A/N: 495980 Permit to Construct Issued: 12/29/10	C168	C167 S170		NH3: 5 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.9, D12.10, D12.11, D29.8, E179.5, E179.6, E193.9
AMMONIA INJECTION					
STACK, SERVING UNIT 12, HEIGHT: 150 FT ; DIAMETER: 13 FT 6 IN A/N: 495665 Permit to Construct Issued: 12/29/10	S170	C168			

* (1) (1A) (1B) Denotes RECLAIM emission factor
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Process 1: POWER GENERATION					
GAS TURBINE, UNIT 13, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, INTERCOOLED, WITH WATER INJECTION, WITH WATER INJECTION, 906.6 MMBTU/HR WITH A/N: 495666 Permit to Construct Issued: 12/29/10	D171	C173		CO: 4 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 2.5 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]; NOX: 14.27 PPMV NATURAL GAS (1A) [RULE 2012, 5-6-2005]; NOX: 25 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; NOX: 96.94 PPMV NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: 0.01 GRAINS/SCF NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR NATURAL GAS (5B) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 5.8 LBS/HR (4) [RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SO2: 0.9 LBS/MEGAWATT-HOUR NATURAL GAS (8A) [40CFR 60 Subpart KKKK,	A63.4, A99.4, A99.5, A99.6, A195.8, A195.9, A195.10, A327.1, C1.4, C1.5, D29.6, D29.7, D82.3, D82.4, E193.6, E193.7, E193.8, E193.10, I296.2, K40.5, K67.6

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CO OXIDATION CATALYST, BASF, SS FOIL WITH ALUMINA WASHCOAT, MODEL CAMEL, 80 MODULES, CATALYST TOTAL VOLUME: 160 CUBIC FEET A/N: 495988 Permit to Construct Issued: 12/29/10	C173	D171 C174			
SELECTIVE CATALYTIC REDUCTION, CORMETECH, MODEL: CMHT-27, WITH 12 MODULES, 1211 CU.FT. WITH A/N: 495988 Permit to Construct Issued: 12/29/10	C174	C173 S176		NH3: 5 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.9, D12.10, D12.11, D29.8, E179.5, E179.6, E193.9
STACK, SERVING UNIT 13, HEIGHT: 150 FT ; DIAMETER: 13 FT 6 IN A/N: 495666 Permit to Construct Issued: 12/29/10	S176	C174			

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GAS TURBINE, UNIT 14, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, INTERCOOLED, WITH WATER INJECTION, WITH WATER INJECTION, 906.6 MMBTU/HR WITH A/N: 495667 Permit to Construct Issued: 12/29/10	D177	C179		CO: 4 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 2.5 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]; NOX: 14.27 PPMV NATURAL GAS (1A) [RULE 2012, 5-6-2005]; NOX: 25 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; NOX: 96.94 PPMV NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: 0.01 GRAINS/SCF NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR NATURAL GAS (5B) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 5.8 LBS/HR (4) [RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SO2: 0.9 LBS/MEGAWATT-HOUR NATURAL GAS (8A) [40CFR 60 Subpart KKKK,	A63.4, A99.4, A99.5, A99.6, A195.8, A195.9, A195.10, A327.1, C1.4, C1.5, D29.6, D29.7, D82.3, D82.4, E193.6, E193.7, E193.8, E193.10, I296.2, K40.5, K67.6

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SELECTIVE CATALYTIC REDUCTION, CORMETECH, MODEL: CMHT-27, WITH 12 MODULES, 1211 CU.FT. WITH A/N: 495989 Permit to Construct Issued: 12/29/10	C180	C179 S182		NH3: 5 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.9, D12.10, D12.11, D29.8, E179.5, E179.6, E193.9
STACK, SERVING UNIT 14, HEIGHT: 150 FT ; DIAMETER: 13 FT 6 IN A/N: 495667 Permit to Construct Issued: 12/29/10	S182	C180			

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: POWER GENERATION					
GAS TURBINE, UNIT 15, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, INTERCOOLED, WITH WATER INJECTION, WITH WATER INJECTION, 906.6 MMBTU/HR WITH A/N: 495668 Permit to Construct Issued: 12/29/10	D183	C185		CO: 4 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 2.5 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]; NOX: 14.27 PPMV NATURAL GAS (1A) [RULE 2012, 5-6-2005]; NOX: 25 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; NOX: 96.94 PPMV NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: 0.01 GRAINS/SCF NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR NATURAL GAS (5B) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 5.8 LBS/HR (4) [RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SO2: 0.9 LBS/MEGAWATT-HOUR NATURAL GAS (8A) [40CFR 60 Subpart KKKK,	A63.4, A99.4, A99.5, A99.6, A195.8, A195.9, A195.10, A327.1, C1.4, C1.5, D29.6, D29.7, D82.3, D82.4, E193.6, E193.7, E193.8, E193.10, I296.2, K40.5, K67.6

- * (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 H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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
Process 1: POWER GENERATION					
GENERATOR, AT 65 F, 102.7 MW				7-6-2006]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	
CO OXIDATION CATALYST, BASF, SS FOIL WITH ALUMINA WASHCOAT, MODEL CAMET, 80 MODULES, CATALYST TOTAL VOLUME: 160 CUBIC FEET A/N: 495990 Permit to Construct Issued: 12/29/10	C185	D183 C186			
SELECTIVE CATALYTIC REDUCTION, CORMETECH, MODEL: CMHT-27, WITH 12 MODULES, 1211 CU.FT. WITH A/N: 495990 Permit to Construct Issued: 12/29/10	C186	C185 S188		NH3: 5 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.9, D12.10, D12.11, D29.8, E179.5, E179.6, E193.9
STACK, SERVING UNIT 15, HEIGHT: 150 FT ; DIAMETER: 13 FT 6 IN A/N: 495668 Permit to Construct Issued: 12/29/10	S188	C186			

- * (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 H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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
Process 1: POWER GENERATION					
GAS TURBINE, UNIT 16, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, INTERCOOLED, WITH WATER INJECTION, WITH WATER INJECTION, 906.6 MMBTU/HR WITH A/N: 495669 Permit to Construct Issued: 12/29/10	D189	C191		CO: 4 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 2.5 PPMV NATURAL GAS (4) [RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]; NOX: 14.27 PPMV NATURAL GAS (1A) [RULE 2012, 5-6-2005]; NOX: 25 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; NOX: 96.94 PPMV NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: 0.01 GRAINS/SCF NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR NATURAL GAS (5B) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 5.8 LBS/HR (4) [RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SO2: 0.9 LBS/MEGAWATT-HOUR NATURAL GAS (8A) [40CFR 60 Subpart KKKK,	A63.4, A99.4, A99.5, A99.6, A195.8, A195.9, A195.10, A327.1, C1.4, C1.5, D29.6, D29.7, D82.3, D82.4, E193.6, E193.7, E193.8, E193.10, I296.2, K40.5, K67.6

- * (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 H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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
Process 1: POWER GENERATION					
GENERATOR, AT 65 F, 102.7 MW				7-6-2006]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	
CO OXIDATION CATALYST, BASF, SS FOIL WITH ALUMINA WASHCOAT, MODEL CAMEL, 80 MODULES, CATALYST TOTAL VOLUME: 160 CUBIC FEET A/N: 495991 Permit to Construct Issued: 12/29/10	C191	D189 C192			
SELECTIVE CATALYTIC REDUCTION, CORMETECH, MODEL: CMHT-27, WITH 12 MODULES, 1211 CU.FT. WITH A/N: 495991 Permit to Construct Issued: 12/29/10	C192	C191 S194		NH3: 5 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.9, D12.10, D12.11, D29.8, E179.5, E179.6, E193.9
STACK, SERVING UNIT 16, HEIGHT: 150 FT ; DIAMETER: 13 FT 6 IN A/N: 495669 Permit to Construct Issued: 12/29/10	S194	C192			
TANK, DIESEL FUEL, 15000 GALS; DIAMETER: 10 FT ; LENGTH: 25 FT 6 IN A/N: 495672 Permit to Construct Issued: 12/29/10	D197				

- * (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 H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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
Process 1: POWER GENERATION					
WASTE WATER SEPARATOR, #1, MAKE: HIGHLAND, MODEL: HTJ2000, 12000 GALS/HR; 2000 GALS A/N: 495673 Permit to Construct Issued: 12/29/10	D198				
WASTE WATER SEPARATOR, #2, MAKE: HIGHLAND, MODEL: HTJ2000, 12000 GALS/HR; 2000 GALS A/N: 495674 Permit to Construct Issued: 12/29/10	D199				
WASTE WATER SEPARATOR, #3, MAKE: HIGHLAND, MODEL: HTJ2000, 12000 GALS/HR; 2000 GALS A/N: 495675 Permit to Construct Issued: 12/29/10	D200				

- * (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 H: 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 H: DEVICE ID INDEX

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C162	2	1	2
S164	2	1	2
D165	4	1	2
C167	4	1	2
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D177	8	1	2
C179	8	1	2
C180	8	1	2
S182	8	1	2
D183	10	1	2
C185	10	1	2
C186	10	1	2
S188	10	1	2
D189	12	1	2
C191	12	1	2
C192	12	1	2
S194	12	1	2
D197	12	1	2
D198	13	1	2
D199	13	1	2
D200	13	1	2



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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):

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]



**FACILITY PERMIT TO OPERATE
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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

F18.1 Acid Rain SO2 Allowance Allocation for affected units are as follows:

Device ID	Boiler ID	Contaminant	Tons in any year
1	Boiler No. 1	SO2	677
4	Boiler No. 2	SO2	335
71	Boiler No. 3	SO2	1234
5	Boiler No. 4	SO2	994
7	Boiler No. 5	SO2	1391
9	Boiler No. 6	SO2	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 SO2 allowance allocations identified in this permit (see 40 CFR 72.84)

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

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]



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

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

DEVICE CONDITIONS

A. Emission Limits

A63.4 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
CO	Less than or equal to 11755 LBS IN ANY ONE MONTH
PM10	Less than or equal to 3341 LBS IN ANY ONE MONTH
VOC	Less than or equal to 2272 LBS IN ANY ONE MONTH
SOX	Less than or equal to 90 LBS IN ANY ONE MONTH

The above limits apply after the equipment is commissioned. The above limits apply to each turbine.

The operator shall calculate the emission limit(s) by using calendar monthly fuel use data and the following emission factors: VOC: 4.42 lbs/mmescf, PM10: 6.5 lbs/mmescf, SOx: 0.18 lbs/mmescf.

The operator shall calculate the emission limits for CO after the CO CEMS certification based upon readings from the AQMD certified CEMS. In the event the CO CEMS is not operating or the emissions exceed the valid upper range of the analyzer, the emissions shall be calculated by using monthly fuel use data and the following factor: CO: 22.88 lbs/mmescf.

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

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

A99.4 The 96.94 LBS/MMSCF NOX emission limit(s) shall only apply during the turbine commissioning period to report RECLAIM emissions.

[RULE 2012, 5-6-2005]



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

A99.5 The 14.27 LBS/MMSCF NOX emission limit(s) shall only apply during the interim period after commissioning to report RECLAIM emissions.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

A99.6 The 5.8 Lbs/hr PM10 emission limit(s) shall not apply during turbine commissioning, startup and shutdown periods..

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

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

A195.8 The 2.5 PPMV NOX emission limit(s) is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, startup and shutdown periods.

[RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

A195.9 The 4 PPMV CO emission limit(s) is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, startup and shutdown periods.

[RULE 1703 - PSD Analysis, 10-7-1988]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

A195.10 The 2 PPMV VOC emission limit(s) is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, startup and shutdown periods.

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



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

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

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

C. Throughput or Operating Parameter Limits

C1.4 The operator shall limit the number of start-ups to no more than 150 in any one month.

Startup time shall not exceed 25 minutes per startup.

NOx emission shall not exceed 20 lbs per startup.

For the purpose of this condition, a startup shall be defined as the start up process to bring the turbine in full successful operation that complies with the BACT emission limits. If during startup the process is aborted the process will count as one startup..

The operator shall determine NOx emissions in lbs for each startup based on CEMS data. The startup NOx emissions shall be recorded in the CEMS.

The operator shall maintain records in a manner approved by the District, for a minimum of five year, to demonstrate compliance with this condition.

[**RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005**]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

C1.5 The operator shall limit the number of shut-downs to no more than 150 in any one month.



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

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

Shutdown time shall not exceed 10 minutes per shutdown.

The operator shall maintain records in a manner approved by the District, for a minimum of five years, to demonstrate compliance with this condition.

[RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

D. Monitoring/Testing Requirements

D12.9 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia (NH₃).

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. The accuracy of the device shall be verified once every 12 months.

The ammonia injection rate shall remain between 74.9 and 143.9 lbs per hour.

[RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition : C162, C168, C174, C180, C186, C192]

D12.10 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature 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. The accuracy of the device shall be verified once every 12 months.

Ammonia injection shall be used at all times at an injection rate which minimizes NOX emissions whenever the exhaust temperature prior to the inlet of the SCR catalyst is between 734 F and 850 F as measured by the temperature gauge.



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

[RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition : C162, C168, C174, C180, C186, C192]

D12.11 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches 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. The accuracy of the device shall be verified once every 12 months.

The pressure differential shall be between 4.0 and 5.8 inches water column.

[RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition : C162, C168, C174, C180, C186, C192]

D29.6 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	1 hour	Outlet of the SCR serving this equipment
CO emissions	District method 100.1	1 hour	Outlet of the SCR serving this equipment
VOC emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
SOX emissions	Approved District method	1 hour	Fuel Sample
NH3 emissions	District method 207.1 or EPA method 17	1 hour	Outlet of the SCR serving this equipment



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

The test shall be conducted after District approval of the source test protocol, but no later than the later of 180 days after initial start-up or three hundred hours of operation after startup. The District shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate. The combined gas turbine and steam turbine generating output in MW shall also be recorded if applicable.

The test shall be conducted in accordance with a District approved source test protocol. The protocol shall be submitted to the AQMD engineer no later than 90 days before the proposed test date and shall be approved by the District before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

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 degrees 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. The test results must be reported with two significant digits.

The test shall be conducted when this equipment is operating at loads of 100 and 75 percent of maximum load for the NO_x, CO, VOC, and ammonia tests.

The PM₁₀ test shall be conducted when this equipment is operating at 100 percent of maximum load.



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

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

D29.7 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
SOX emissions	Approved District method	1 hour	Fuel Sample
VOC emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

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

The test shall be conducted and the results submitted to the District within 90 days after the test date. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test..

The test shall be conducted when the gas turbine is operating at 100 percent of maximum heat input..

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 degrees

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. The test results must be reported with two significant digits.

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

[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]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

D29.8 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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The operator shall comply with the terms and conditions set forth below:

NH3 emissions | District method 207.1 or EPA method 17 | 1 hour | Outlet of the SCR serving this equipment

The test shall be conducted and the results submitted to the District within 90 days after the test date. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test..

The test(s) shall be conducted at least quarterly during the first twelve months of operation and at least annually thereafter. The NOx concentration, as determined by the certified CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable or not yet certified, 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..

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

[Devices subject to this condition : C162, C168, C174, C180, C186, C192]

D82.3 The operator shall install and maintain a CEMS to measure the following parameters:



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

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

CO Emission Rate, lbs/hr = $K * C_{co} * F_d [20.9 / (20.9\% - \%O_2 d)] [(Q_g * HHV) / 106]$, where

1. $K = 7.267 * 10^{-8}$ (lb/scf)/ppm
2. C_{co} = Average of four consecutive 15 min. average CO concentration, ppm
3. F_d = 8710 dscf/MMBTU natural gas
4. $\%O_2 d$ = Hourly average % by vol. O2 dry, corresponding to C_{co}
5. Q_g = Fuel gas usage during the hour, scf/hr
6. HHV = Gross high heating value of fuel gas, BTU/scf

[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 : D159, D165, D171, D177, D183, D189]

D82.4 The operator shall install and maintain a CEMS to measure the following parameters:



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

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 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.

Rule 2012 provisional RATA testing shall be completed and submitted to the AQMD within 90 days of the conclusion of the turbine commissioning period. 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).

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

E. Equipment Operation/Construction Requirements

E179.5 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every 15 minutes and shall be calculated based upon the average of the continuous monitoring for that hour..

Condition Number D 12- 9

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition : C162, C168, C174, C180, C186, C192]

E179.6 For the purpose of the following condition number(s), continuously record shall be defined as at least once every hour and shall be calculated based upon the average of the continuous monitoring for that month.



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

Condition Number D 12-10

Condition Number D 12-11

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

[Devices subject to this condition : C162, C168, C174, C180, C186, C192]

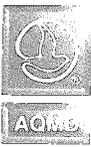
E193.6 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

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 : D159, D165, D171, D177, D183, D189]

E193.7 The operator shall operate and maintain this equipment according to the following requirements:



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

The gas turbines shall operate with natural gas exclusively.

The commissioning period shall not exceed 176 hours of operation for each turbine during the first 30 calendar days from the date of initial turbine start-up. During the commissioning process the operator shall calculate the emission limit(s) by using calendar monthly fuel use data and the following emission factors: VOC: 11.46 lbs/mmscf, PM10: 6.86 lbs/mmscf, SOx: 0.49 lbs/mmscf, CO: 205.89 lbs/mmscf.

Within 90 days of the initial startup of three turbines LADWP shall surrender either the permit for Boiler #5 (D7) or the permit for Boiler #6 (D9). Within 90 days of the initial startup of all six turbines and no later than December 31, 2012 permits for Boiler #5 and Boiler #6 shall be surrendered.

The operator shall vent this equipment to the CO oxidation catalyst and SCR control system whenever the turbine is in operation after initial commissioning.

There shall not be more than three gas turbines in the startup mode concurrently.

The operator shall provide the AQMD with written notification of the initial startup date. Written records of commissioning, startups, and shutdowns shall be maintained and made available upon request from AQMD.

[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 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

E193.8 The operator shall operate and maintain this equipment according to the following requirements:

Within 4 months of the issuance of Permit to Construct, the Permittee will sign an existing Collection Agreement with the U.S. Forest Service to participate in a post PSD visibility monitoring project, the results of which will be used to establish a visibility baseline in nearby Class I Areas.



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

[RULE 1703 - PSD Analysis, 10-7-1988]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

E193.9 The operator shall operate and maintain this equipment according to the following requirements:

The operator shall calculate and continuously record the NH₃ slip concentration using the following equation

$$\text{NH}_3 \text{ (ppmvd)} = [a-b*(c*1.2)/1,000,000]*1,000,000/b$$

where a=NH₃ injection rate (lb/hr)/17(lb/lb-mol), b= dry exhaust flow rate (scf/hr)/(385.5 scf/lb-mol), c = change in measured NO_x across the SCR, ppmvd at 15 percent O₂.

The operator shall install a NO_x analyzer to measure the SCR inlet NO_x ppm accurate to within +/- 5 percent calibrated at least once every 12 months. 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. The ammonia slip calculation procedure shall be in-effect no later than 90 days after initial startup of the turbine.

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

[Devices subject to this condition : C162, C168, C174, C180, C186, C192]

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



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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:

$$PM2.5 = (FF1*EF1+ FF2*EF2+ FF9*EF9+ FF10*EF10+ FF11*EF11+ FF12*EF12+ FF13*EF13+ FF14*EF14+ FF15*EF15+ FF16*EF16)/2000$$

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.

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

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.

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

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]



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

I. Administrative

I296.2 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 1st compliance year hold a minimum NO_x RTCs of 68,120 lbs. This condition shall apply during the 1st 12 months of operation, commencing with the initial operation of the gas turbines.

To comply with this condition, the operator shall, prior to the beginning of all years subsequent to the 1st compliance year, hold a minimum NO_x RTCs of 61,784 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, 5-6-2005]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

K. Record Keeping/Reporting

K40.5 The operator shall provide to the District a source test report in accordance with the following specifications:



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

Source test results shall be submitted to the District no later than 90 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lbs/hr), and lbs/MM Cubic Feet. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

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.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the flue gas temperature, and the generator power 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 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]

K67.6 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Natural gas fuel use during the commissioning period

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D159, D165, D171, D177, D183, D189]