



# South Coast Air Quality Management District

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

November 2, 2012

Mr. Dan Angeles  
Principal Engineer  
Pasadena Water & Power  
72 E. Glenarm Street  
Pasadena, CA 91105

Subject: RECLAIM/Title V Facility Permit Revision (Facility ID: 800168)

Dear Mr. Angeles:

Please find attached the revised Title Page, Table of Contents, and Section D of your RECLAIM/Title V Facility Permit. The revised sections reflect issuance of permit to operate for the equipment listed in the following table. The equipment were previously issued permits to construct.

Equipment	Application No.	Device No.	Process	Permit Type
Gas Turbine #1	438039	D9	2	PO
Gas Turbine #2	438040	D10	2	PO
SCR for Gas Turbine #1	437716	C50, C51	2	PO
SCR for Gas Turbine #2	437718	C53, C54	2	PO

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

Very truly yours,

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

BLY:AYL:JTY:LC

cc: Geraldo Rios, EPA Region IX

Attachments



## FACILITY PERMIT TO OPERATE

**PASADENA CITY, DWP (EIS USE)  
72 E GLENARM ST  
PASADENA, CA 91105**

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



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

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## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

### 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: STORAGE TANKS</b>					
<b>System 1: 130 WALLIS STREET</b>					
STORAGE TANK, V-1, AQUEOUS AMMONIA, 11890 GALS; DIAMETER: 8 FT ; LENGTH: 33 FT 4 IN A/N: 285959	D5				C157.1, E144.1
<b>System 3: 72 GLENARM AVE</b>					
TANK, AMMONIA STORAGE, AQUEOUS AMMONIA 19% WT, WITH VAPOR RECOVERY SYSTEM, WIDTH: 30 FT ; DIAMETER: 8 FT A/N: 403552	D48				C157.2, E144.1, E193.1
<b>Process 2: INTERNAL COMBUSTION</b>					
<b>System 1: TURBINES</b>					
GAS TURBINE, PEAKING UNIT, GT-1, NATURAL GAS, CURTISS WRIGHT, MODEL MOD POD-30, WITH A PRATT WHITNEY FT4C POWER TURBINE, WITH STEAM OR WATER INJECTION, 298 MMBTU/HR WITH A/N: 438039	D9	C50	NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 9 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; NOX: 162 PPMV (8A) [40CFR 63 Subpart GG, 4-20-2006]; 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]; SO2: 150 PPMV (8A) [40CFR 60 Subpart GG, 2-24-2006]	A63.2, A99.7, A195.7, A327.1, C1.5, C19.1, D12.4, D82.3, D372.1, E57.2
GENERATOR, 30.58 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.



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

### 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: INTERNAL COMBUSTION</b>					
SELECTIVE CATALYTIC REDUCTION, SERVING GT1, PEERLESS, WITH A CORMETECH CMHT-XPI CATALYST, WITH AMMONIA INJECTION, 706 CU.FT. A/N: 437716	C50	D9 C51 C53		NH3: 5 PPMV (4) [RULE 1303(a) (1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.6, D12.6, D12.7, D12.8, D29.4, D232.1, E73.4, E179.1, E179.2
SELECTIVE CATALYTIC REDUCTION, SERVING GT1, PEERLESS, WITH A HALDOR TOPSOE DNX-630 CATALYST, WITH AMMONIA INJECTION, 477 CU.FT. A/N: 437716	C53	C50		NH3: 5 PPMV (4) [RULE 1303(a) (1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.6, D12.6, D12.7, D12.8, D29.4, D232.1, E73.4, E179.1, E179.2
GAS TURBINE, PEAKING UNIT, GT-2, FUEL OIL, NATURAL GAS, CURTISS WRIGHT, MODEL MOD POD-30, WITH STEAM OR WATER INJECTION, 298 MMBTU/HR WITH A/N: 438040	D10	C51	NOX: PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 9 PPMV NATURAL GAS (1) [RULE 2012, 5-6-2005]; NOX: 162 PPMV (8A) [40CFR 60 Subpart GG, 2-24-2006]; PM: 0.01 GRAINS/SCF (5B) [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 (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: 150 PPMV NATURAL GAS (8A) [40CFR 60 Subpart GG, 2-24-2006]	A63.2, A99.7, A195.7, A327.1, C1.5, C19.1, D12.4, D82.3, D372.1, E57.2

GENERATOR, 30.58 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.



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

### 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: INTERNAL COMBUSTION</b>					
SELECTIVE CATALYTIC REDUCTION, SERVING GT2, PEERLESS, WITH A CORMETECH CMHT-XPI CATALYST, WITH AMMONIA INJECTION, 706 CU.FT. A/N: 437718	C51	D10 C50 C54		NH3: 5 PPMV (4) [RULE 1303(a) (1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.6, D12.6, D12.7, D12.8, D29.4, D232.1, E73.4, E179.1, E179.2
SELECTIVE CATALYTIC REDUCTION, SERVING GT2, PEERLESS, WITH A HALDOR TOPSOE DNX-630 CATALYST, WITH AMMONIA INJECTION, 477 CU.FT. A/N: 437718	C54	C51		NH3: 5 PPMV (4) [RULE 1303(a) (1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.6, D12.6, D12.7, D12.8, D29.4, D232.1, E73.4, E179.1, E179.2

- \* (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.)
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## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

### 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: INTERNAL COMBUSTION</b>					
SELECTIVE CATALYTIC REDUCTION, SERVING GT3, ATS WITH ENGELHARD CATALYST, 1460 CU.FT., WIDTH: 18 FT 7.5 IN; HEIGHT: 26 FT 8 IN; LENGTH: 4 FT 8 IN WITH A/N: 403549	C39	C38 S41		NH3: 5 PPMV (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, D29.3, D232.1, E73.3, E179.1, E179.2, E193.1
AMMONIA INJECTION, GRID, SERVING SCR FOR GT3, 45 MW STACK, SERVING GT3, HEIGHT: 125 FT; DIAMETER: 12 FT; 45 MW A/N: 410609		S41 C39			

- (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
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**FACILITY PERMIT TO OPERATE  
PASADENA CITY, DWP (EIS USE)**

**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: INTERNAL COMBUSTION</b>					
GAS TURBINE, GT4, NATURAL GAS, GE, MODEL LM6000 SPRINT, SIMPLE CYCLE, WITH WATER INJECTION, 71 MW; 448 MMBTU/HR WITH A/N: 410612	D42	C44	NOX: MAJOR SOURCE**	CO: 6 PPMV NATURAL GAS (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: 5 PPMV NATURAL GAS (4) [RULE 2005, 6-3-2011]; NOX: 108 PPMV NATURAL GAS (8) [40CFR 60 Subpart GG, 2-24-2006]; 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]; SO <sub>2</sub> : (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SOX: 150 PPMV NATURAL GAS (8) [40CFR 60 Subpart GG, 2-24-2006]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.1, A99.4, A99.5, A195.1, A195.2, A195.3, A327.1, C1.6, C1.7, D29.2, D82.1, D82.2, E193.1, K40.2
GENERATOR, SERVING GT4, 47.3 MW					
CO OXIDATION CATALYST, SERVING GT4, VOL: 104 CU FT, HT: 320", WD: 223.5", DEPTH: 12" A/N: 403551	C44	D42 C45			

- \* (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 PASADENA CITY, DWP (EIS USE)

### 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: INTERNAL COMBUSTION</b>					
SELECTIVE CATALYTIC REDUCTION, SERVING GT4, ATS WITH ENGELHARD CATALYST, 1460 CU.FT., WIDTH: 18 FT 7.5 IN, HEIGHT: 26 FT 8 IN, LENGTH: 4 FT 8 IN WITH A/N: 403551	C45	C44 S47		NH3: 5 PPMV (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, D29.3, D232.1, E73.3, E179.1, E179.2, E193.1
AMMONIA INJECTION, GRID, SERVING SCR FOR GT4					
STACK, SERVING GT4, HEIGHT: 125 FT ; DIAMETER: 12 FT A/N: 410612	S47	C45			
<b>System 2: RECIPOCATING ENGINES</b>					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, CATERPILLAR, MODEL 3054 T, WITH TURBOCHARGER, 96 BHP WITH A/N: 298046	D11		NOX: PROCESS UNIT**	NOX: 7.12 GRAM/BHP-HR DIESEL (5) [RULE 2009, 5-11-2001]; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-11-2001; RULE 2012, 12-5-2003], PM: (9) [RULE 404, 2-7-1986]	C1.2, C1.3, D12.1, E116.1, K67.3
GENERATOR, 60 KW					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, CATERPILLAR, MODEL 3406 DITA, WITH AFTERCOOLER, TURBOCHARGER, 519 BHP WITH A/N: 402461	D12		NOX: PROCESS UNIT**	NOX: 7 GRAM/BHP-HR DIESEL (5) [RULE 2009, 5-11-2001]; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]; PM: (9) [RULE 404, 2-7-1986]	C1.2, C1.3, D12.1, E116.1, K67.3
GENERATOR, 350 KW					
<b>System 3: OIL WATER SEPARATOR</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 PASADENA CITY, DWP (EIS USE)

### 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: INTERNAL COMBUSTION</b>					
OIL WATER SEPARATOR, 15000 GALS/HR. WIDTH: 7 FT : HEIGHT: 6 FT : LENGTH: 15 FT A/N: 403553	D49				
<b>Process 3: EXTERNAL COMBUSTION</b>					
<b>System 1: BROADWAY UNITS</b>					
BOILER, BROADWAY UNIT NO. B-3, FUEL OIL, NATURAL GAS, FOSTER-WHEELER, 646 MMBTU/HR WITH A/N: 402460	D15	C18 C35	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 409, 8-7-1981]; NOX: 28.29 LBS/1000 GAL FUEL OIL (1) [RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]; NOX: 30 PPMV (5A) [RULE 2009, 5-11-2001]. NOX: 125 PPMV NATURAL GAS (5) [RULE 474, 12-4-1981]. NOX: 142.102 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]; NOX: 225 PPMV FUEL OIL (5) [RULE 474, 12-4-1981]; 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 6 (5) [RULE 407, 4-2-1982]	A99.2, A195.5, B59.2, B75.1, C1.1, D371.2, E54.1, E73.1
GENERATOR, 71 MW					

\* (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 PASADENA CITY, DWP (EIS USE)

### 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: EXTERNAL COMBUSTION</b>					
SELECTIVE CATALYTIC REDUCTION, SERVING BOILER B3, WITH AMMONIA INJECTION, 706 CU.FT.; WIDTH: 24 FT.; DIAMETER: 10 FT.; LENGTH: 9 FT.; HEIGHT: 13 FT 4 IN A/N: 330274	C35	D15		NH3: 10 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.3, D12.5, D28.2, E73.2, E192.1, K67.5
<b>System 2: GLENARM UNITS</b>					
SCRUBBER, SPRAY CHAMBER, MODEL H-525, HEIGHT: 14 FT.; DIAMETER: 10 FT A/N: G01142	C18	D15			C8.1, D12.2, E71.1, K67.2
<b>Process 4: R219 EXEMPT EQUIPMENT SUBJECT TO SOURCE-SPECIFIC RULE</b>					
RULE 219 EXEMPT EQUIPMENT, CLEANING EQUIPMENT, SMALL, UNHEATED, NON-CONVEYORIZED	E19			VOC: (9) [RULE 1171, 11-7-2003; RULE 1171, 7-14-2006]	H23.2
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E20			HOG: (9) [RULE 1113, 11-8-1996; RULE 1113, 7-13-2007; RULE 1171, 11-7-2003; RULE 1171, 7-14-2006]	K67.4
RULE 219 EXEMPT EQUIPMENT, COOLING TOWERS	E21				H23.4
RULE 219 EXEMPT EQUIPMENT, ABRASIVE BLASTING EQUIPMENT, ABRASIVE BLASTING EQUIPMENT, WET, AND ANY CONTROL EQUIPMENT	E52			PM: (9) [RULE 1140, 2-1-1980; RULE 1140, 8-2-1985]	

\* (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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**FACILITY PERMIT TO OPERATE  
PASADENA CITY, DWP (EIS USE)**

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**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 PASADENA CITY, DWP (EIS USE)

### SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	Section D Page No.	Process	System
D5	1	1	1
D9	1	2	1
D10	2	2	1
D11	7	2	2
D12	7	2	2
D15	8	3	1
C18	9	3	2
E19	9	4	0
E20	9	4	0
E21	9	4	0
C35	9	3	1
D36	4	2	1
C38	4	2	1
C39	5	2	1
S41	5	2	1
D42	6	2	1
C44	6	2	1
C45	7	2	1
S47	7	2	1
D48	1	1	3
D49	8	2	3
C50	2	2	1
C51	3	2	1
E52	9	4	0
C53	2	2	1
C54	3	2	1



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

### 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 0.05 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, 5-4-1990; 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):



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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, 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
13	Broadway Unit No. B-1	SO <sub>2</sub>	126
14	Broadway Unit No. B-2	SO <sub>2</sub>	163
15	Broadway Unit No. B-3	SO <sub>2</sub>	74

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]



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**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**

**A63.1 The operator shall limit emissions from this equipment as follows:**

CONTAMINANT	EMISSIONS LIMIT
CO	Less than 18297 LBS IN ANY ONE MONTH
PM	Less than 4302 LBS IN ANY ONE MONTH
VOC	Less than 881 LBS IN ANY ONE MONTH
SOX	Less than 184 LBS IN ANY ONE MONTH



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

For the purposes of this condition, the limit(s) shall be based on the total combined emissions from the gas turbine GT3 (D36) and the gas turbine GT4 (D42).

The operator shall calculate the emission limit(s) during normal operations by using monthly fuel usage data and the following emission factors: CO: 31.33 lb/MMscf, PM10: 7.37 lbs/MMscf, VOC: 1.51 lbs/MMscf, SOx: 0.31 lbs/MMscf

The operator shall calculate the emission limit(s) for CO, after the CO CEMS certification, based on readings from the 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 in accordance with the approved CEMS plan.

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

[Devices subject to this condition : D36, D42]

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

CONTAMINANT	EMISSIONS LIMIT
CO	Less than 12900 LBS IN ANY ONE MONTH
PM	Less than 3060 LBS IN ANY ONE MONTH
VOC	Less than 900 LBS IN ANY ONE MONTH
SOX	Less than 1080 LBS IN ANY ONE MONTH

For the purposes of this condition, the limit(s) shall be based on the total combined emissions from the gas turbine GT3 (D36) and the gas turbine GT4 (D42).

The operator shall calculate the emission limit(s) during normal operations by using monthly fuel usage data and the following emission factors: CO: 31.33 lb/MMscf, PM10: 7.37 lbs/MMscf, VOC: 1.51 lbs/MMscf, SOx: 0.31 lbs/MMscf



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

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

[Devices subject to this condition : D9, D10]

- A99.2 The 142.102 LBS/MMCF NOX emission limit(s) shall only apply during hot standby operations.

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

[Devices subject to this condition : D15]

- A99.4 The 5.0 PPM NOX emission limit(s) shall not apply during turbine commissioning, startup, and shutdown periods. The commissioning period shall not exceed 213 operating hours from the date of initial start-up. The operator shall provide the AQMD with written notification of the initial start-up date. Written records of commissioning, startups, and shutdowns shall be maintained and made available upon request from AQMD.

[RULE 2005, 4-20-2001; RULE 2005, 5-6-2005]

[Devices subject to this condition : D36, D42]

- A99.5 The 6.0 PPM CO emission limit(s) shall not apply during turbine commissioning, startup, and shutdown periods. The commissioning period shall not exceed 213 operating hours from the date of initial start-up. The operator shall provide the AQMD with written notification of the initial start-up 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]

[Devices subject to this condition : D36, D42]



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

A99.7 The 9.0 PPM NOX emission limit(s) shall not apply during SCR commissioning, startup, and shutdown periods. The operator shall provide the AQMD with written notification of the initial start-up date. Written records of commissioning, startups, and shutdowns shall be maintained and made available upon request from AQMD.

[RULE 2009, 5-11-2001]

[Devices subject to this condition : D9, D10]

A195.1 The 5.0 PPMV NOX emission limit(s) is averaged over 3 hours at 15 percent oxygen, dry basis, rolling average.

[RULE 2005, 4-20-2001; RULE 2005, 5-6-2005]

[Devices subject to this condition : D36, D42]

A195.2 The 6.0 PPMV CO emission limit(s) is averaged over 3 hours at 15 percent oxygen, dry basis, rolling average.

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

[Devices subject to this condition : D36, D42]

A195.3 The 2.0 PPMV VOC emission limit(s) is averaged over 1 hour at 15 percent oxygen, dry basis, rolling average.

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

[Devices subject to this condition : D36, D42]



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

A195.4 The 5.0 PPMV NH<sub>3</sub> emission limit(s) is averaged over 1 hour at 15 percent oxygen, dry basis.

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

[Devices subject to this condition : C39, C45]

A195.5 The 30.0 PPMV NO<sub>X</sub> emission limit(s) is averaged over a 1-hour period, 3% O<sub>2</sub>, dry basis.

The average shall be calculated based on emissions during all boiler operating hours except 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 500 F, and 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 500 F.

[RULE 2009, 5-11-2001]

[Devices subject to this condition : D15]

A195.6 The 5.0 PPMV NH<sub>3</sub> emission limit(s) is averaged over 1 hour at 15 percent oxygen, dry basis.

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

[Devices subject to this condition : C50, C51, C53, C54]

A195.7 The 9.0 PPMV NO<sub>X</sub> emission limit(s) is averaged over 1 hours at 15 percent oxygen, dry basis.

[RULE 2009, 5-11-2001]



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

[Devices subject to this condition : D9, D10]

- 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 : D9, D10, D36, D42]

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

- B59.2 The operator shall only use the following material(s) in this device :

Fuel oil supplied at the burner shall be at a temperature of 180 degrees F or greater

[RULE 401, 3-2-1984; RULE 401, 9-11-1998]

[Devices subject to this condition : D15]

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

Natural gas curtailment

[RULE 2009, 5-11-2001]

[Devices subject to this condition : D15]



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

#### C. Throughput or Operating Parameter Limits

C1.1 The operator shall limit the fuel oil usage to no more than 4365 gallon(s) in any one hour.

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

[Devices subject to this condition : D15]

C1.2 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 20 hours in any one year for maintenance and testing purposes.

The operation of the engine beyond the 20 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, 11-14-1997; RULE 1304(a)-Modeling and Offset Exemption,  
6-14-1996; RULE 1470, 6-1-2007]

[Devices subject to this condition : D11, D12]

C1.3 The operator shall limit the maintenance testing to no more than 0.5 hour(s) per week.



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

**[RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996]**

[Devices subject to this condition : D11, D12]

- C1.5 The operator shall limit the output to no more than 149000 MW-hours in any calendar year.

To comply with this condition, the operator shall maintain a record of monthly MW-hours operated. The record shall be available to AQMD personnel upon request for a period of five years.

**[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 : D9, D10]

- C1.6 The operator shall limit the number of start-ups to no more than 750 in any one year.

Startup time shall not exceed 1 hour per startup.

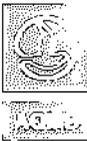
Number of startups shall not exceed 400 in any one month.

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

**[RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 4-20-2001]**

[Devices subject to this condition : D36, D42]

- C1.7 The operator shall limit the number of shut-downs to no more than 750 in any one year.



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

Shutdown time shall not exceed 8 minutes per shutdown.

Number of shutdowns shall not exceed 400 in any one month.

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

**[RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 4-20-2001]**

[Devices subject to this condition : D36, D42]

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 400 gpm.

To comply with this condition, the operator shall monitor the flow rate as specified in condition number 12-2.

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

[Devices subject to this condition : C18]

C19.1 The operator shall maintain water/fuel ratio when burning natural gas and power generated in accordance with the following relationship:

water/fuel ratio when burning natural gas	ratio	power generated	megawatts
Greater than or equal to	1	Greater than	18

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

[Devices subject to this condition : D9, D10]



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

C157.1 The operator shall install and maintain a pressure relief valve set at 25 psig.

[RULE 402, 5-7-1976]

[Devices subject to this condition : D5]

C157.2 The operator shall install and maintain a pressure relief valve set at 50 psig.

[RULE 402, 5-7-1976]

[Devices subject to this condition : D48]

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

D12.1 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, 11-14-1997; **RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996**]

[Devices subject to this condition : D11, D12]

D12.2 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate being supplied to the scrubber.

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

[Devices subject to this condition : C18]



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

D12.3 The operator shall install and maintain a(n) measuring device to accurately indicate the temperature at the outlet of the SCR reactor.

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

[Devices subject to this condition : C35]

D12.4 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the turbine.

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

[Devices subject to this condition : D9, D10]

D12.5 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia (NH<sub>3</sub>).

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

[Devices subject to this condition : C35]

D12.6 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia (NH<sub>3</sub>).

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 2005, 4-20-2001; RULE 2005, 5-6-2005]



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

[Devices subject to this condition : C39, C45, C50, C51, C53, C54]

D12.7 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of 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 2005, 4-20-2001; RULE 2005, 5-6-2005]

[Devices subject to this condition : C39, C45, C50, C51, C53, C54]

D12.8 The operator shall install and maintain a(n) pressure gauge to accurately indicate the 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. 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 2005, 4-20-2001; RULE 2005, 5-6-2005]

[Devices subject to this condition : C39, C45, C50, C51, C53, C54]

D28.2 The operator shall conduct source test(s) in accordance with the following specifications:



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

The test shall be conducted at least annually.

The test shall be conducted to determine the NH3 emissions at the outlet.

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

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

**[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : C35]

D29.2 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	District-approved averaging time	Fuel Sample
VOC	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment



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

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

The test shall be conducted and the results submitted to the District within 60 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.

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

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit. The test results must be reported with two significant digits.

For natural gas fired turbines only, this shall be demonstrated by: a) Stack gas samples are extracted into Summa canisters, keeping a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of Summa canisters is done with zero gas analyzed/certified of 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 temperature of the Summa canisters when extracting samples for analysis is not below 70 degrees F.

The use of this alternative method does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD method 25.3 without approval, except 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.

[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]



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

[Devices subject to this condition : D36, D42]

D29.3 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
NH3 emissions	District method 207.1 and 5.3 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 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 once each calendar quarter during the first twelve months of operation and 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; RULE 2005, 4-20-2001]**

[Devices subject to this condition : C39, C45]

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



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**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 shall be conducted and the results submitted to the District within 60 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 once per calendar quarter during the first twelve months of operation and 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 : C50, C51, C53, C54]

D82.1 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 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.

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

[Devices subject to this condition : D36, D42]

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.

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

[Devices subject to this condition : D36, D42]

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:**

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 one year after initial start-up 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 of the turbine startup date, the operator shall provide written notification to the District of the exact date of start-up.

[RULE 2009, 5-11-2001; RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]

[Devices subject to this condition : D9, D10]

- D232.1 The operator shall install and maintain a continuous emission monitoring device to accurately indicate the ammonia concentration in the flue gas exiting the turbine exhaust stack. the continuous emission monitoring device shall be approved by the executive officer and shall monitor and record ammonia concentrations, and alert the operator (via audible or visible alarm) whenever ammonia concentrations are near, at, or in excess of the permitted ammonia limit of 5 ppmv, corrected to 15 percent oxygen. it shall continuously monitor, compute, and record the following parameters.



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

Ammonia concentration, uncorrected in ppmv.

Oxygen concentration in percent.

Ammonia concentration in ppmv, corrected to 15 percent oxygen.

Date, time, extent (in time) of all excursions above 5 ppmv, corrected to 15 percent oxygen.

The continuous emission monitoring device described above shall be operated and maintained according to a Quality Assurance Plan (QAP) approved by the Executive Officer. The QAP must address contingencies for monitored ammonia concentrations near, at, or above the permitted compliance limit, and remedial actions to reduce ammonia levels once an exceedance has occurred.

The continuous emission monitoring device may not be used for compliance determination or emission information determination without corroborative data using an approved reference method for the determination of ammonia.

The Continuous Emission Monitoring Device shall be installed and operating 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; RULE 2005, 4-20-2001; RULE 2005, 5-6-2005]**

[Devices subject to this condition : C39, C45, C50, C51, C53, C54]



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

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

D371.2 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, 12-12-1997]**

[Devices subject to this condition : D15]



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

### 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. However, this paragraph does not apply if fuel oil is not burned. The test shall be conducted no later than six months after the time limit has been exceeded.

The annual source test frequency will be reduced to at least once every five years for each fuel type under the highest emitting load if three consecutive annual tests show compliance with either the concentration limit or the mass emission limit.

No test shall be required in any one year for which the equipment is not in operation.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D9, D10]

#### E. Equipment Operation/Construction Requirements

E54.1 The operator shall only vent this equipment to the following equipment if all of the requirements listed below are met:



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

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

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

Device ID: C18 [SCRUBBER]

Requirement number 1: During periods of steam lancing.

[RULE 401, 3-2-1984; RULE 401, 9-11-1998]

[Devices subject to this condition : D15]

E57.2 The operator shall vent this equipment to the electrostatic precipitator which serves the bearing oil vent, and the precipitator shall be in full use whenever the turbine is in operation.

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

[Devices subject to this condition : D9, D10]

E71.1 The operator shall only utilize this equipment during periods of soot blowing. During operation of the scrubbing system, all by-passes shall be in the closed position..

[RULE 401, 3-2-1984; RULE 401, 9-11-1998]

[Devices subject to this condition : C18]

E73.1 Notwithstanding the requirements of Section E conditions, the operator shall not use fuel oil in this equipment if all of the following requirement(s) are met:

During periods when steam atomization is not utilized.

[RULE 401, 3-2-1984; RULE 401, 9-11-1998]

[Devices subject to this condition : D15]



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

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

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

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:

Whenever the outlet exhaust temperature of the SCR reactor is less than 500 degrees F

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

[Devices subject to this condition : C35]

E73.3 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use ammonia injection if any of the following requirement(s) are met:

The inlet exhaust temperature to the SCR is 570 °F or less, not to exceed 60 minutes during a startup.

[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 : C39, C45]

E73.4 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use ammonia injection if any of the following requirement(s) are met:

The inlet exhaust temperature to the SCR is 500 °F or less, not to exceed 60 minutes during a startup.

[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 : C50, C51, C53, C54]



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

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

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

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.

[RULE 1470, 6-1-2007]

[Devices subject to this condition : D11, D12]

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 : D5, D48]

E179.1 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- 7

[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 : C39, C45, C50, C51, C53, C54]

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 upon the average of the continuous monitoring for that month.



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

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

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

Condition Number D 12- 8

[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 : C39, C45, C50, C51, C53, C54]

E192.1 The operator shall comply with the following condition number(s) by providing NOx and CO data obtained during fuel oil readiness testing or during a force majeure curtailment from the CEMS of the associated utility boiler. The owner or operator of this equipment may also elect to demonstrate compliance with condition no. 99-2 for fuel oil firing by source testing the equipment in accordance with condition no. 28-1. Compliance with District rule 407 may also be demonstrated using the same methodology explained above.

Condition Number 99-2

[RULE 1135, 7-19-1991]

[Devices subject to this condition : C35]

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

In accordance with all mitigation measures stipulated in Mitigated Negative Declaration issued by the city of Pasadena, issued on July 31, 2002, State Clearing House Number: 2002061081.

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D36, C39, D42, C45, D48]



**FACILITY PERMIT TO OPERATE  
PASADENA CITY, DWP (EIS USE)**

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

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

**H. Applicable Rules**

H23.2 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1122

[RULE 1122, 7-11-1997; RULE 1122, 12-6-2002]

[Devices subject to this condition : E19]

H23.4 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Chromium, Hexavalent	District Rule	1404

[RULE 1404, 4-6-1990]

[Devices subject to this condition : E21]

**K. Record Keeping/Reporting**

K40.2 The operator shall provide to the District a source test report in accordance with the following specifications:



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)

### 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), 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 2005, 4-20-2001; RULE 2005, 5-6-2005]**

[Devices subject to this condition : D36, D42]

- K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):
- on a daily basis: record of the flow rate of scrubbing solution

**[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : C18]

- 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 PASADENA CITY, DWP (EIS USE)

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

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

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 reasons 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, 11-14-1997; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996]

[Devices subject to this condition : D11, D12]

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

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, 12-12-1997]

[Devices subject to this condition : E20]



## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP (EIS USE)**

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

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

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

The data monitored by conditions number D12-3 and D82-1

Temperature records shall be kept on a minute-by-minute basis until ammonia injection commences

The manner of recordkeeping shall be approved in writing by the manager of the Energy Team. All records shall be retained for a period of 5 years and shall be made available to District personnel upon request

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

**[Devices subject to this condition : C35]**