

## FACILITY PERMIT TO OPERATE

**PASADENA CITY, DWP  
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, P.E.  
Deputy Executive Officer  
Engineering & Compliance

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION A: FACILITY INFORMATION

**LEGAL OWNER &/OR OPERATOR:** PASADENA CITY, DWP

**LEGAL OPERATOR (if different than owner):**

**EQUIPMENT LOCATION:** 72 E GLENARM ST  
PASADENA, CA 91105-3482

**MAILING ADDRESS:** 45 E GLENARM ST  
PASADENA, CA 91105-3418

**RESPONSIBLE OFFICIAL:** PHYLLIS E CURRIE

**TITLE:** GENERAL MANAGER

**TELEPHONE NUMBER:** (626) 744-4425

**CONTACT PERSON:** DAN ANGELES

**TITLE:** PRINCIPAL ENGINEER

**TELEPHONE NUMBER:** (626) 744-6240

**TITLE V PERMIT ISSUED:** January 18, 2008

**TITLE V PERMIT EXPIRATION DATE:** January 17, 2013

TITLE V	RECLAIM
YES	<b>NOx:</b> YES <b>SOx:</b> NO <b>CYCLE:</b> 1 <b>ZONE:</b> INLAND

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION

The annual allocation of NOx RECLAIM Trading Credits (RTCs) for this facility is calculated pursuant to Rule 2002. Total NOx emission shall not exceed such annual allocations unless the operator obtains RTCs corresponding to the facility's increased emissions in compliance with Rules 2005 and 2007.

The level of Starting Allocation plus Non-Tradable Credits used to determine compliance with Rule 2005(c)(4) and applicability of Rule 2005(e) - Trading Zone Restrictions is listed on the last page of this Section.

The following table lists the annual allocations that were issued to this facility and the amounts of RTCs held by this facility on the day of printing this Section.

#### RECLAIM POLLUTANT ANNUAL ALLOCATION (POUNDS)

Year Begin End (month/year)	Zone	NOx RTC Initially Allocated	NOx RTC <sup>1</sup> Holding as of 01/01/2014 (pounds)	Non-Tradable <sup>2</sup> Non-Usable RTCs (pounds)
7/2012 6/2013	Coastal	0	0	0
1/2012 12/2012	Inland	76226	2441	0
1/2013 12/2013	Inland	76226	25924	0
1/2014 12/2014	Inland	76226	59075	0
1/2015 12/2015	Inland	76226	59075	0
1/2016 12/2016	Inland	76226	59075	0
1/2017 12/2017	Inland	76226	59075	0
1/2018 12/2018	Inland	76226	59075	0
1/2019 12/2019	Inland	76226	59075	0
1/2020 12/2020	Inland	76226	59075	0
1/2021 12/2021	Inland	76226	59075	0
1/2022 12/2022	Inland	76226	59075	0
1/2023 12/2023	Inland	76226	59075	0
1/2024 12/2024	Inland	76226	59075	0
1/2025 12/2025	Inland	76226	59075	0
1/2026 12/2026	Inland	76226	59075	0
1/2027 12/2027	Inland	76226	59075	0

**Footnotes:**

1. This number may change due to pending trades, emissions reported under Quarterly Certification of Emissions Report (QCER) and Annual Permit Emission Program (APEP) Report required pursuant to Rule 2004, or deductions made pursuant to Rule 2010(b). The most recent total RTC information can be obtained from the District's RTC Listing.
2. The use of such credits is subject to restrictions set forth in paragraph (f)(1) of Rule 2002.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION

The annual allocation of NO<sub>x</sub> RECLAIM Trading Credits (RTCs) for this facility is calculated pursuant to Rule 2002. Total NO<sub>x</sub> emission shall not exceed such annual allocations unless the operator obtains RTCs corresponding to the facility's increased emissions in compliance with Rules 2005 and 2007.

The level of Starting Allocation plus Non-Tradable Credits used to determine compliance with Rule 2005(c)(4) and applicability of Rule 2005(e) - Trading Zone Restrictions is listed on the last page of this Section.

The following table lists the annual allocations that were issued to this facility and the amounts of RTCs held by this facility on the day of printing this Section.

#### RECLAIM POLLUTANT ANNUAL ALLOCATION (POUNDS)

Year Begin End (month/year)	Zone	NO <sub>x</sub> RTC	NO <sub>x</sub> RTC <sup>1</sup>	Non-Tradable <sup>2</sup>
		Initially Allocated	Holding as of 01/01/2014 (pounds)	Non-Usable RTCs (pounds)
1/2028 12/2028	Inland	76226	59075	0
1/2029 12/2029	Inland	76226	59075	0

**Footnotes:**

1. This number may change due to pending trades, emissions reported under Quarterly Certification of Emissions Report (QCER) and Annual Permit Emission Program (APEP) Report required pursuant to Rule 2004, or deductions made pursuant to Rule 2010(b). The most recent total RTC information can be obtained from the District's RTC Listing.
2. The use of such credits is subject to restrictions set forth in paragraph (f)(1) of Rule 2002.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION

The annual allocation of RECLAIM Trading Credits (RTCs) for this facility is calculated pursuant to Rule 2002. If the facility submits a permit application to increase in an annual allocation to a level greater than the facility's starting Allocation plus Non-Tradable credits as listed below, the application will be evaluated for compliance with Rule 2005 (c)(4). Rule 2005 (e) - Trading Zone Restrictions applies if an annual allocation is increased to a level greater than the facility's Starting Allocation plus Non-Tradable Credits:

Year		Zone	NOx RTC	Non-Tradable
Begin	End		Starting Allocation	Credits(NTC)
(month/year)			(pounds)	(pounds)
1/1994	12/1994	Inland	766098	1314

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**SECTION C: FACILITY PLOT PLAN**

**(TO BE DEVELOPED)**

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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  GENERATOR, 30.58 MW	D9	C50	NOX: MAJOR SOURCE**	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

- \* (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.



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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.)
- (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

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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  AMMONIA INJECTION, GRID, SERVING SCR FOR GT3, 45 MW	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
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

### 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]; SO2: (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

### 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  AMMONIA INJECTION, GRID, SERVING SCR FOR GT4	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
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  GENERATOR, 60 KW	D11		NOX: PROCESS UNIT**	NOX: 7.12 GRAM/BHP-HR DIESEL (5) [RULE 2009, 1-7-2005]; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]	C1.2, C1.3, D12.1, E116.1, E193.6, K67.3
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, CATERPILLAR, MODEL 3406 DITA, WITH AFTERCOOLER, TURBOCHARGER, 519 BHP WITH A/N: 402461  GENERATOR, 350 KW	D12		NOX: PROCESS UNIT**	NOX: 7 GRAM/BHP-HR DIESEL (5) [RULE 2009, 1-7-2005]; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]	C1.2, C1.3, D12.1, E116.1, E193.5, E193.6, K67.3
<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

### 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, 5-6-2005]; NOX: 30 PPMV (5A) [RULE 2009, 1-7-2005]; NOX: 142.102 LBS/MMSCF NATURAL GAS (1) [RULE 2012, 5-6-2005]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SOX: 500 PPMV FUEL OIL 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					
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>					

\* (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

### 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>					
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, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E20			<b>ROG: (9) [RULE 1113, 7-13-2007; RULE 1113, 9-6-2013; RULE 1171, 2-1-2008; RULE 1171, 5-1-2009]</b>	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			<b>PM: (9) [RULE 1140, 2-1-1980; RULE 1140, 8-2-1985]</b>	

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

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

**FACILITY PERMIT TO OPERATE  
PASADENA CITY, DWP**

**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  
 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
E20	9	4	0
E21	9	4	0
C35	8	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

### 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 SO2 Allowance Allocation for affected units are as follows:

Device ID	Boiler ID	Contaminant	Tons in any year
13	Broadway Unit No. B-1	SO2	124
14	Broadway Unit No. B-2	SO2	155
15	Broadway Unit No. B-3	SO2	71

a). The allowance allocation(s) shall apply to calendar years 2010 and beyond.

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]**

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

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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]**

**F52.1 This facility is subject to the applicable requirements of the following rules or regulation(s):**

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

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

The facility shall submit a detailed retirement plan for the permanent shutdown of Boiler B-3 (Device 15), describing in detail the steps and schedule that will be taken to render Boiler B-3 inoperable.

The retirement plan must be submitted to AQMD within 60 days of permit issuance. AQMD shall notify PDWP whether the plan is approvable. If AQMD notifies PDWP that the plan is not approvable, PDWP shall submit a revised plan addressing AQMD's concerns within 30 days.

PDWP shall not commence any construction of equipment for the repower project before the retirement plan for permanent shut down of Boiler B-3 is approved in writing by AQMD.

PDWP shall provide AQMD with a notarized statement that Boiler B-3 is permanently shut down and that any re-start or operation of the unit shall require a new Permit to Construct and be subject to all requirements of nonattainment new source review and the prevention of significant deterioration program.

The notarized statement shall be submitted within 30 days following the permanent shutdown of Boiler B-3.

PDWP shall notify AQMD 30 days prior to the implementation of the approved retirement plan for permanent shut down of Boiler B-3.

PDWP shall cease operation of Boiler B-3 (Device 15) within 90 calendar days of the first fire of turbine GT-5.

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

### **DEVICE CONDITIONS**

#### **A. Emission Limits**

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

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

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

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 6450 LBS IN ANY ONE MONTH
PM10	Less than 1530 LBS IN ANY ONE MONTH

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

VOC	Less than 450 LBS IN ANY ONE MONTH
SOX	Less than 540 LBS IN ANY ONE MONTH

For the purposes of this condition, the limit(s) shall be based on the emissions from a single gas turbine.

The operator shall calculate the emission limit(s) during normal operations by using monthly fuel usage data and the following emission factors: CO: 31.5 lb/MMscf, PM10: 7.35 lbs/MMscf, VOC: 2.2 lbs/MMscf, SOx: 2.57 lbs/MMscf.

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

[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, 6-3-2011]**

[Devices subject to this condition : D36, D42]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

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

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]

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, 1-7-2005]

[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, 6-3-2011]

[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]

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

[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]

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, 1-7-2005]

[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.

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

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

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

A195.7 The 9.0 PPMV NOX emission limit(s) is averaged over 1 hours at 15 percent oxygen, dry basis.

[RULE 2009, 1-7-2005]

[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]

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

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

Natural gas curtailment

[RULE 2009, 1-7-2005]

[Devices subject to this condition : D15]

#### **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..

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

**[RULE 1110.2, 2-1-2008; RULE 1110.2, 9-7-2012; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996; RULE 1470, 5-4-2012]**

[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.

**[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.

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

**[RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 6-3-2011]**

[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.

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, 6-3-2011]**

[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:

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

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]

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.

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

**[RULE 1110.2, 2-1-2008; RULE 1110.2, 9-7-2012; 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]

- 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, 5-6-2005]**

[Devices subject to this condition : C35]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

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

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.

For control equipment serving turbines designated as non-operational major sources, calibrations and maintenance shall not be required during the period of time the turbine is non-operational.

For the purposes of this condition, non-operation shall be defined as zero fuel flow to the turbine verified by the removal of a section of fuel feed line(s) and the placement of a blind flange at each end of the fuel feed line(s). Maintenance, recordings and calibrations shall commence on the day the turbine first fires fuel.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 6-3-2011]

[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.

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

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.

For control equipment serving turbines designated as non-operational major sources, calibrations and maintenance shall not be required during the period of time the turbine is non-operational.

For the purposes of this condition, non-operation shall be defined as zero fuel flow to the turbine verified by the removal of a section of fuel feed line(s) and the placement of a blind flange at each end of the fuel feed line(s). Maintenance, recordings and calibrations shall commence on the day the turbine first fires fuel.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 6-3-2011]**

[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.

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

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

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

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

For control equipment serving turbines designated as non-operational major sources, calibrations and maintenance shall not be required during the period of time the turbine is non-operational.

For the purposes of this condition, non-operation shall be defined as zero fuel flow to the turbine verified by the removal of a section of fuel feed line(s) and the placement of a blind flange at each end of the fuel feed line(s). Maintenance, recordings and calibrations shall commence on the day the turbine first fires fuel.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 6-3-2011]**

[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:

The test shall be conducted at least annually.

The test shall be conducted to determine the NH<sub>3</sub> emissions at the outlet.

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

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

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

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

[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]**

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

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

[Devices subject to this condition : 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, 6-3-2011]**

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

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

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

The test 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.

The annual source test shall not be required during the period of time that the turbine, to which this control system is connected, is non-operational. For the purposes of this condition, non-operation shall be defined as zero fuel flow to the turbine verified by the removal of a section of fuel feed line(s) and the placement of a blind flange at each end of the fuel feed line(s). The source test shall be performed within 45 calendar days from the day the turbine first fires fuel.

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

[Devices subject to this condition : D36, D42]

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

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

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

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

NOX concentration in ppmv

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.

For turbines designated as non-operational major sources, The NOx CEMS shall be installed, maintained and operated in the accordance with the requirements of Rule 2012, including the requirements of Rule 2012(c)(9) for sources qualifying as non-operated major NOx sources.

For the purposes of this condition, non-operation shall be defined as zero fuel flow to the turbine verified by the removal of a section of fuel feed line(s) and the placement of a blind flange at each end of the fuel feed line(s).

[RULE 2009, 1-7-2005; RULE 2012, 5-6-2005]

[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.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

**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, 6-3-2011]**

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

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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

### 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

### 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

### 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, 6-3-2011]

[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, 6-3-2011]

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

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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, 6-3-2011]

[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

### 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, 6-3-2011]**

[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 by conducting a District approved source testing. Compliance with District Rule 407 may also be demonstrated using the same methodology explained above.

Condition Number	SUGGESTED CHAR	CONDITION	CONDITION PARAMETER
NOT SET UP			

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

[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

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

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

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

This equipment shall not be operated for non-emergency purposes between the hours of 7:30 am and 3:30 pm on days when Blair High School is in session.

[RULE 1470, 5-4-2012]

[Devices subject to this condition : D12]

E193.6 The operator shall operate and maintain this equipment according to the following requirements:

a. Change oil and filter every 500 hours of operation or annually, whichever comes first.

b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[40CFR 63 Subpart ZZZZ, 1-30-2013]

[Devices subject to this condition : D11, D12]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

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

E313.1 This device is classified as a non-operated major NO<sub>x</sub> source as defined under Rule 2012 and shall not be operated unless the Facility Permit holder provides written notification to the Executive Officer 30 days prior to starting operation. In order to maintain the non-operational classification, the Facility Permit holder shall:

- (a) Remove a section of the fuel feed line(s) to the device and place a blind flange on both ends of the fuel feed line(s); and
- (b) Remove a major component of the source necessary for its operation.

Removal of parts or components solely to qualify the device for non-operated classification pursuant to this condition, or replacement of the same removed parts or components resulting in the device no longer being classified as non-operated shall not be deemed to affect the potential to emit within the meanings of Rule 2005, Regulation XIII and Regulation XXX.

This device shall not be operated unless the Facility Permit holder submits a complete application for change of condition to remove this condition from the facility permit 30 days prior to starting operation.

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

[Devices subject to this condition : D10]

E315.1 Once this device is operated, it shall no longer be classified as non-operational. This device shall also meet the monitoring requirements of Rule 2012, subparagraph (c)(2)(A) or (c)(2)(B) no later than 30 calendar days after the start of operation except as provided in Rule 2012, paragraph (c)(10).

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

[Devices subject to this condition : D10]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

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

#### **H. Applicable Rules**

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

### 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, 6-3-2011]**

[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

### 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, 2-1-2008; RULE 1110.2, 9-7-2012; 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

### 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]

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **SECTION E: ADMINISTRATIVE CONDITIONS**

The operating conditions in this section shall apply to all permitted equipment at this facility unless superseded by condition(s) listed elsewhere in this permit.

1. The permit shall remain effective unless this permit is suspended, revoked, modified, reissued, denied, or it is expired for nonpayment of permit processing or annual operating fees. [201, 203, 209, 301]
  - a. The permit must be renewed annually by paying annual operating fees, and the permit shall expire if annual operating fees are not paid pursuant to requirements of Rule 301(d). [301(d)]
  - b. The Permit to Construct listed in Section H shall expire one year from the Permit to Construct issuance date, unless a Permit to Construct extension has been granted by the Executive Officer or unless the equipment has been constructed and the operator has notified the Executive Officer prior to the operation of the equipment, in which case the Permit to Construct serves as a temporary Permit to Operate. [202, 205]
  - c. The Title V permit shall expire as specified under Section K of the Title V permit. The permit expiration date of the Title V facility permit does not supercede the requirements of Rule 205. [205, 3004]
2. The operator shall maintain all equipment in such a manner that ensures proper operation of the equipment. [204]
3. This permit does not authorize the emissions 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 and Regulations of the AQMD. This permit cannot be considered as permission to violate existing laws, ordinances, regulations, or statutes of other governmental agencies. [204]
4. The operator shall not use equipment identified in this facility permit as being connected to air pollution control equipment unless they are so vented to the identified air pollution control equipment which is in full use and which has been included in this permit. [204]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION E: ADMINISTRATIVE CONDITIONS

5. The operator shall not use any equipment having air pollution control device(s) incorporated within the equipment unless the air pollution control device is in full operation. [204]
6. The operator shall maintain records to demonstrate compliance with rules or permit conditions that limit equipment operating parameters, or the type or quantity of material processed. These records shall be made available to AQMD personnel upon request and be maintained for at least: [204]
  - a. Three years for a facility not subject to Title V; or
  - b. Five years for a facility subject to Title V.
7. The operator shall maintain and operate all equipment to ensure compliance with all emission limits as specified in this facility permit. Compliance with emission limits shall be determined according to the following specifications, unless otherwise specified by AQMD rules or permit conditions: [204]
  - a. For internal combustion engines and gas turbines, measured concentrations shall be corrected to 15 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1110.2, 1134, 204]
  - b. For other combustion devices, measured concentrations shall be corrected to 3 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1146, 1146.1, 204]
  - c. For a large NO<sub>x</sub> source, compliance with a RECLAIM concentration limit shall be measured over a continuous 60 minutes for that source; [2012]
  - d. For non-combustion sources, compliance with emission limits shall be determined and averaged over a period of 60 minutes; [204]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION E: ADMINISTRATIVE CONDITIONS

- e. For the purpose of determining compliance with Rule 407, carbon monoxide (CO) shall be measured on a dry basis and be averaged over 15 consecutive minutes, and sulfur compounds which would exist as liquid or gas at standard conditions shall be calculated as sulfur dioxide (SO<sub>2</sub>) and be averaged over 15 consecutive minutes; [407]
  - f. For the purpose of determining compliance with Rule 409, combustion contaminant emission measurements shall be corrected to 12 percent of carbon dioxide (CO<sub>2</sub>) at standard conditions and averaged over 15 consecutive minutes. [409]
  - g. For the purpose of determining compliance with Rule 475, combustion contaminant emission measurements shall be corrected to 3 percent of oxygen (O<sub>2</sub>) at standard conditions and averaged over 15 consecutive minutes or any other averaging time specified by the Executive Officer. [475]
8. All equipment operating under the RECLAIM program shall comply concurrently with all provisions of AQMD Rules and Regulations, except those listed in Table 1 of Rule 2001 for NO<sub>x</sub> RECLAIM sources and Table 2 of Rule 2001 for SO<sub>x</sub> RECLAIM sources. Those provisions listed in Tables 1 or 2 shall not apply to NO<sub>x</sub> or SO<sub>x</sub> emissions after the date the facility has demonstrated compliance with all monitoring and reporting requirements of Rules 2011 or 2012, as applicable. Provisions of the listed AQMD rules in Tables 1 or 2 which have initial implementation dates in 1994 shall not apply to a RECLAIM NO<sub>x</sub> or SO<sub>x</sub> source, respectively. [2001]
9. The operator shall, when a source test is required by AQMD, provide a source test protocol to AQMD no later than 60 days before the proposed test date. The test shall not commence until the protocol is approved by AQMD. The test protocol shall contain the following information: [204, 304]
- a. Brief description of the equipment tested.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION E: ADMINISTRATIVE CONDITIONS

- b. Brief process description, including maximum and normal operating temperatures, pressures, through-put, etc.
  - c. Operating conditions under which the test will be performed.
  - d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts/stacks at the sampling locations, and distances of flow disturbances, (e.g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
  - e. Brief description of sampling and analytical methods used to measure each pollutant, temperature, flow rates, and moisture.
  - f. Description of calibration and quality assurance procedures.
  - g. Determination that the testing laboratory qualifies as an "independent testing laboratory" under Rule 304 (no conflict of interest).
10. The operator shall submit a report no later than 60 days after conducting a source test, unless otherwise required by AQMD Rules or equipment-specific conditions. The report shall contain the following information: [204]
- a. The results of the source test.
  - b. Brief description of the equipment tested.
  - c. Operating conditions under which test will be performed.
  - d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts/stacks at the sampling locations, and distances of flow disturbances, (e.g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
  - e. Field and laboratory data forms, strip charts and analyses.

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **SECTION E: ADMINISTRATIVE CONDITIONS**

- f. Calculations for volumetric flow rates, emission rates, control efficiency, and overall control efficiency.
- 11. The operator shall, when a source test is required, provide and maintain facilities for sampling and testing. These facilities shall comply with the requirements of AQMD Source Test Method 1.1 and 1.2. [217]
- 12. Whenever required to submit a written report, notification or other submittal to the Executive Officer, AQMD, or the District, the operator shall mail or deliver the material to: Deputy Executive Officer, Engineering and Compliance, AQMD, 21865 E. Copley Drive, Diamond Bar, CA 91765-4182. [204]

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS**

The Facility shall comply with all applicable monitoring and source testing requirements in Regulation XX. These requirements may include but are not limited to the following:

#### **I. NOx Monitoring Conditions**

A. The Operator of a NOx Major Source, as defined in Rule 2012, shall, as applicable:

1. Install, maintain, and operate an AQMD certified direct or time-shared monitoring device or an approved alternative monitoring device for each major NOx source to continuously measure the concentration of NOx emissions and all other applicable variables specified in Rule 2012, Table 2012-1 and Rule 2012, Appendix A, Table 2-A to determine the NOx emissions rate from each source. The time-sharing of CEMS among NOx sources may be allowed by the Executive Officer in accordance with the requirements for time sharing specified in Appendix A. [2012]
2. Install, maintain, and operate a totalizing fuel meter approved by the Executive Officer for each major source. [2012]
3. If the facility is operating existing CEMS and fuel meters, continue to follow recording and reporting procedures required by AQMD Rules and Regulations in effect prior to October 15, 1993 until the CEMS is certified pursuant to Rule 2012. [2012]
4. Use valid data collected by an AQMD certified or provisionally certified CEMS in proper operation that meets all the requirements of Appendix A of Rule 2012, unless final certification of the CEMS is denied, to determine mass emissions for all purposes, including, but not limited to, determining: [2012]
  - a. compliance with the annual Allocation;
  - b. excess emissions;
  - c. the amount of penalties; and
  - d. fees.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS

5. Follow missing data procedures as specified in Rule 2012 Appendix A whenever valid data is not available or collected to determine mass emissions for all purposes, including, but not limited to, determining: [2012]
  - a. compliance with the annual Allocation;
  - b. excess emissions;
  - c. the amount of penalties; and
  - d. fees.

B. The Operator of a NOx Large Source, as defined in Rule 2012, shall, as applicable:

Not Applicable

C. The Operator of a NOx Process Unit, as defined in Rule 2012, shall, as applicable:

1. Install, maintain, and operate a totalizing fuel meter or any device approved by the Executive Officer to measure quarterly fuel usage or other applicable variables specified in Rule 2012, Table 2012-1, and Rule 2012, Appendix A, Table 4-A. The sharing of totalizing fuel meters may be allowed by the Executive Officer if the fuel meter serves process units which have the same emission factor or emission rate. The sharing of totalizing meter shall not be allowed for process units which are required to comply with an annual heat input limit. [2012]

#### II. NOx Source Testing and Tune-up conditions

1. The operator shall conduct all required NOx source testing in compliance with an AQMD-approved source test protocol. [2012]

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS**

2. The operator shall, as applicable, conduct source tests for every large NO<sub>x</sub> source no later than December 31, 1996 and every 3 years thereafter. The source test shall include the determination of NO<sub>x</sub> concentration and a relative accuracy audit of the exhaust stack flow determination (e.g. in-stack flow monitor or fuel flow monitor based F-factor calculation). Such source test results shall be submitted per the schedule described by APEP. In lieu of submitting the first source test report, the facility permit holder may submit the results of a source test not more than 3 years old which meets the requirements when conducted. [2012]
3. All NO<sub>x</sub> large sources and NO<sub>x</sub> process units shall be tuned-up in accordance with the schedule specified in Rule 2012, Appendix A, Chapter 5, Table 5-B. [2012]

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **SECTION G: RECORDKEEPING AND REPORTING REQUIREMENTS FOR RECLAIM SOURCES**

The Facility shall comply with all applicable reporting and recordkeeping requirements in Regulation XX. These requirements may include but are not limited to the following:

#### **I. Recordkeeping Requirements for all RECLAIM Sources**

1. The operator shall maintain all monitoring data required to be measured or reported pursuant to Rule 2011 and Rule 2012, whichever is applicable. All records shall be made available to AQMD staff upon request and be maintained for at least:
  - a. Three years after each APEP report is submitted to AQMD for a facility not subject to Title V, unless a different time period is required in Rule 2011 or Rule 2012 [2011 & 2012]; or
  - b. Five years after each APEP report is submitted to AQMD for a facility subject to Title V. [3004(a)(4)(E)]
  - c. Notwithstanding the above, all data gathered or computed for intervals of less than 15 minutes shall only be maintained a minimum of 48 hours. [2011 & 2012]
2. The operator shall store on site and make available to the Executive Officer upon request: records used to determine emissions, maintenance records, sources test reports, relative accuracy test audit reports, relative accuracy audit reports and fuel meter calibration records. [2011 & 2012]

#### **II. Reporting Requirements for all RECLAIM Sources**

1. The operator shall submit a quarterly certification of emissions including the total facility NO<sub>x</sub> or SO<sub>x</sub> emissions, whichever is applicable, for the quarter within 30 days after the end of the first three quarters and 60 days after the end of the fourth quarter of a compliance year. [2004]

#### **NO<sub>x</sub> Reporting Requirements**

- A. The Operator of a NO<sub>x</sub> Major Source, as defined in Rule 2012, shall, as applicable:

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION G: RECORDKEEPING AND REPORTING REQUIREMENTS FOR RECLAIM SOURCES

1. No later than 12 months after entry into the RECLAIM program or after the initial operation of a new major source, whichever is later, install, maintain, and operate a reporting device to electronically report everyday to the AQMD central station for each major NOx source, the total daily mass emissions of NOx and daily status codes. Such data shall be transmitted by 5:00 p.m. of the following day. If the facility experiences a power, computer, or other system failure that prevents the submittal of the daily report, the Facility Permit holder shall be granted 96 hours extension to submit the report. [2012]
2. Calculate NOx emissions pursuant to missing data procedures set forth in Appendix A, Chapter 2 of Rule 2012 if the Facility Permit holder fails to meet the deadline for submitting the daily report. [2012]
3. Submit an electronic report within 15 days following the end of each month totaling NOx emissions from all major NOx sources during the month. [2012]
4. For those facilities with existing CEMS and fuel meters as of October 15, 1993, continue to follow recording and reporting procedures required by AQMD Rules and Regulations in effect until the CEMS is certified pursuant to Rule 2011 and/or Rule 2012, as applicable. [2012]

B. The Operator of a NOx Large Source, as defined in Rule 2012, shall:

Not Applicable

C. The Operator of a NOx Process Unit, as defined in Rule 2012, shall:

1. Electronically report the calculated quarterly NOx emissions for each NOx process unit. The Operator shall comply with this requirement within 12 months of the date of entry to the RECLAIM Program. [2012]



## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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
<b>Process 2: INTERNAL COMBUSTION</b>					
GAS TURBINE, GT-5, NATURAL GAS, GENERAL ELECTRIC, MODEL LM6000 PG SPRINT, COMBINED CYCLE, 547.5 MMBTU/HR HHV @ 64 DEG F, WITH WATER INJECTION A/N: 538115 Permit to Construct Issued: 08/15/13	D56	C66		CO: 2 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 2 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 6-3-2011]; NOX: 18.79 LBS/MMSCF NATURAL GAS (1A) [RULE 2005, 6-3-2011]; NOX: 25 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; NOX: 42.83 LBS/MMSCF 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 (5B) [RULE 409, 8-7-1981]; PM: 11 LBS/HR NATURAL GAS (5) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SO2: 0.06 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)	A63.3, A99.8, A99.9, A99.10, A99.11, A195.8, A195.9, A195.10, A327.1, A433.1, A433.2, D29.6, D29.7, D29.8, D82.4, D82.5, E193.2, E193.3, H23.5, I297.1, K40.3, K67.7

- \* (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

### 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
<b>Process 2: INTERNAL COMBUSTION</b>					
				-BACT, 12-6-2002]	
GENERATOR, SERVING GT-5, 56.1 GROSS MW @ 64 DEG F A/N: 538115 Permit to Construct Issued: 08/15/13	B57				
STEAM TURBINE, ST-5, MAKE TBD, MODEL TBD A/N: 538115 Permit to Construct Issued: 08/15/13	B64				
GENERATOR, SERVING ST-5, 14.7 GROSS MW @ 64 DEG F A/N: 538115 Permit to Construct Issued: 08/15/13	B65				
CO OXIDATION CATALYST, NO.5, EMERACHEM, MODEL TBD, FIXED BED PLATINUM, VOLUME 100 CU FT A/N: 538120 Permit to Construct Issued: 08/15/13	C66	D56 C67			
SELECTIVE CATALYTIC REDUCTION, NO. 5, HALDOR TOPSOE, MODEL TBD, CATALYST VOLUME 848 CU FT A/N: 538120 Permit to Construct Issued: 08/15/13	C67	C66 S69		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1) -BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.11, D12.9, D12.10, D12.13, E179.3, E179.4, E179.6, E193.2
AMMONIA INJECTION, GRID, AQUEOUS AMMONIA A/N: 538120 Permit to Construct Issued: 08/15/13	B68				

- \* (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

### 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
<b>Process 2: INTERNAL COMBUSTION</b>					
STACK, SERVING GT-5, HEIGHT: 125 FT ; DIAMETER: 10 FT 2.04 IN A/N: 538115 Permit to Construct Issued: 08/15/13	S69	C67			

- \* (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**

**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  
PASADENA CITY, DWP**

**SECTION H: DEVICE ID INDEX**

<b>Device Index For Section H</b>			
<b>Device ID</b>	<b>Section H Page No.</b>	<b>Process</b>	<b>System</b>
D10	1	2	1
D56	3	2	1
B57	3	2	1
B64	3	2	1
B65	3	2	1
C66	3	2	1
C67	3	2	1
B68	3	2	1
S69	4	2	1

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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 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):

purchase records of fuel oil and sulfur content of the fuel

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

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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
13	Broadway Unit No. B-1	SO2	124
14	Broadway Unit No. B-2	SO2	155
15	Broadway Unit No. B-3	SO2	71

a). The allowance allocation(s) shall apply to calendar years 2010 and beyond.

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]**

F52.1 This facility is subject to the applicable requirements of the following rules or regulation(s):

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

The facility shall submit a detailed retirement plan for the permanent shutdown of Boiler B-3 (Device 15), describing in detail the steps and schedule that will be taken to render Boiler B-3 inoperable.

The retirement plan must be submitted to AQMD within 60 days of permit issuance. AQMD shall notify PDWP whether the plan is approvable. If AQMD notifies PDWP that the plan is not approvable, PDWP shall submit a revised plan addressing AQMD's concerns within 30 days.

PDWP shall not commence any construction of equipment for the repower project before the retirement plan for permanent shut down of Boiler B-3 is approved in writing by AQMD.

PDWP shall provide AQMD with a notarized statement that Boiler B-3 is permanently shut down and that any re-start or operation of the unit shall require a new Permit to Construct and be subject to all requirements of nonattainment new source review and the prevention of significant deterioration program.

The notarized statement shall be submitted within 30 days following the permanent shutdown of Boiler B-3.

PDWP shall notify AQMD 30 days prior to the implementation of the approved retirement plan for permanent shut down of Boiler B-3.

PDWP shall cease operation of Boiler B-3 (Device 15) within 90 calendar days of the first fire of turbine GT-5.

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

#### **DEVICE CONDITIONS**

##### **A. Emission Limits**

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

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

CONTAMINANT	EMISSIONS LIMIT
CO	Less than 6450 LBS IN ANY ONE MONTH
PM10	Less than 1530 LBS IN ANY ONE MONTH
VOC	Less than 450 LBS IN ANY ONE MONTH
SOX	Less than 540 LBS IN ANY ONE MONTH

For the purposes of this condition, the limit(s) shall be based on the emissions from a single gas turbine.

The operator shall calculate the emission limit(s) during normal operations by using monthly fuel usage data and the following emission factors: CO: 31.5 lb/MMscf, PM10: 7.35 lbs/MMscf, VOC: 2.2 lbs/MMscf, SOx: 2.57 lbs/MMscf.

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

[Devices subject to this condition : D10]

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

CONTAMINANT	EMISSIONS LIMIT
CO	Less than or equal to 5,873 LBS IN ANY ONE MONTH
PM10	Less than or equal to 3,010 LBS IN ANY ONE MONTH
VOC	Less than or equal to 1,436 LBS IN ANY ONE MONTH
SOX	Less than or equal to 588 LBS IN ANY ONE MONTH

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

The above limits apply after the equipment is commissioned.

The operator shall calculate the monthly emission limit(s) by using calendar monthly fuel use data and the following emission factors: VOC: 3.48 lbs/mmescf, PM10: 7.30 lbs/mmescf, SOx: 1.43 lbs/mmescf.

The operator shall calculate the emission limit(s) 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 factors: normal operation: 14.25 lbs/mmescf.

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

[Devices subject to this condition : D56]

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, 1-7-2005]

[Devices subject to this condition : D10]

A99.8 The 42.83 LBS/MMSCF NOX emission limit(s) shall only apply during the interim reporting period during initial turbine commissioning to report RECLAIM emissions.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D56]

A99.9 The 18.79 LBS/MMSCF NOX emission limit(s) shall only apply during the interim reporting period after initial turbine commissioning to report RECLAIM emissions.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D56]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

A99.10 The 2.0 PPM NOX emission limit(s) shall not apply during turbine commissioning, start-up, shutdown, Water Injection and Intercooler Tuning (WIIT), and Ammonia Injection Grid Tuning (AIGT) periods. Start-up time shall not exceed 120 minutes for each start-up. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 5 start-ups per day, 155 start-ups per month, and 750 start-ups per year.

For the purposes of this condition, the beginning of start-up occurs at initial fire in the combustor of the combustion turbine through the full operation of the steam turbine generator. If during start-up, the process is aborted the process will count as one start-up.

For the purposes of this condition, shutdown shall be defined as the period of time from initiation of the shutdown sequence to cessation of firing.

For the purposes of this condition, WIIT shall be defined as the tuning of the gas turbine water injection and intercooler system. WIIT shall not exceed 12 hours. The operator shall limit the duration of WIIT to no more than 12 hours in any one month and 24 hours in any one year.

For the purposes of this condition, AIGT shall be defined as optimizing and re-balancing of the NH<sub>3</sub> grid or catalyst modules, and the retuning of the turbine control systems. AIGT shall not exceed 10 hours. The operator shall limit the duration of AIGT to no more than 10 hours in any one year.

The commissioning period shall not exceed 204 hours.

**[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 6-3-2011]**

**[Devices subject to this condition : D56]**

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

A99.11 The 2.0 PPM CO emission limit(s) shall not apply during turbine commissioning, start-up, shutdown, Water Injection and Intercooler Tuning (WIIT), and Ammonia Injection Grid Tuning (AIGT) periods. Start-up time shall not exceed 120 minutes for each start-up. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 5 start-ups per day, 155 start-ups per month, and 750 start-ups per year.

For the purposes of this condition, the beginning of start-up occurs at initial fire in the combustor of the combustion turbine through the full operation of the steam turbine generator. If during start-up, the process is aborted the process will count as one start-up

For the purposes of this condition, shutdown shall be defined as the period of time from initiation of the shutdown sequence to cessation of firing.

For the purposes of this condition, WIIT shall be defined as the tuning of the gas turbine water injection and intercooler system. WIIT shall not exceed 12 hours. The operator shall limit the duration of WIIT to no more than 12 hours in any one month and 24 hours in any one year.

For the purposes of this condition, AIGT shall be defined as shall be defined as optimizing and re-balancing of the NH<sub>3</sub> grid or catalyst modules, and the retuning of the turbine control systems. AIGT shall not exceed 10 hours. The operator shall limit the duration of AIGT to no more than 10 hours in any one year.

The commissioning period shall not exceed 204 hours.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2) - PSD-BACT, 10-7-1988]**

[Devices subject to this condition : D56]

A195.7 The 9.0 PPMV NOX emission limit(s) is averaged over 1 hours at 15 percent oxygen, dry basis.

[RULE 2009, 1-7-2005]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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 : D10]

A195.8 The 2.0 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O<sub>2</sub>, dry.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 6-3-2011]

[Devices subject to this condition : D56]

A195.9 The 2.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O<sub>2</sub>, dry.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D56]

A195.10 The 2.0 PPMV VOC emission limit(s) is averaged over 60 minutes at 15 percent O<sub>2</sub>, dry.

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

[Devices subject to this condition : D56]

A195.11 The 5.0 PPMV NH<sub>3</sub> emission limit(s) is averaged over 60 minutes at 15 percent O<sub>2</sub>, dry.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

The operator shall calculate and continuously record the NH3 slip concentration using the following:  $NH_3 \text{ (ppmv)} = [a-b*c/1EE+06]*1EE+06/b$ , where: a = NH3 injection rate (lbs/hr)/17(lb/lb-mol), b = dry exhaust gas flow rate (scf/hr)/385.3 scf/lb-mol), c = change in measured NOx across the SCR (ppmvd at 15% O2).

The operator shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months.

The NOx analyzer shall be installed and operated within 90 days of initial start-up.

The operator shall use the above described method 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 without corroborative data using an approved reference method for the determination of ammonia.

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

[Devices subject to this condition : C67]

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 : D10, D56]

A433.1 The operator shall comply at all times with the 2.0 ppm 1-hour BACT limit for NOx, except as defined in condition A99.10 and for the following scenarios:

Operating Scenario	Maximum Limit	Operational Limit
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## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

Start-up	28.68 lb	The mass emission limit shall be determined for start-up using CEMS minute by minute emission data. It shall be calculated to 120 minutes from the commencement of initial fire in the combustor
Shutdown	11.78 lb	The mass emission limit shall be determined for shutdown using CEMS minute by minute emission data. It shall be calculated to 60 minutes counted back from the cessation of firing

Records of minute by minute start-up and shutdown data shall be maintained and made available to the Executive Officer upon request.

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

[Devices subject to this condition : D56]

A433.2 The operator shall comply at all times with the 2.0 ppm 1-hour BACT limit for CO, except as defined in condition A99.11 and for the following scenarios:

Operating Scenario	Maximum Limit	Operational Limit
Start-up	23.61 lb	The mass emission limit shall be determined for start-up using CEMS minute by minute emission data. It shall be calculated to 120 minutes from the commencement of initial fire in the combustor

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

Shutdown	9.90 lb	The mass emission limit shall be determined for shutdown using CEMS minute by minute emission data. It shall be calculated to 60 minutes counted back from the cessation of firing
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Records of minute by minute start-up and shutdown data shall be maintained and made available to the Executive Officer upon request.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2) - PSD-BACT, 10-7-1988]**

[Devices subject to this condition : D56]

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

**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 : D10]

**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
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## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

Greater than or | 1 | Greater than | 18  
equal to

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

[Devices subject to this condition : D10]

#### D. Monitoring/Testing Requirements

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 : D10]

D12.9 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

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

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

The temperature shall be between 600 degrees F and 900 degrees F.

[RULE 2005, 6-3-2011]

[Devices subject to this condition : C67]

D12.10 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

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

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

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

The differential pressure shall less than 6.5 inches of water column.

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

[Devices subject to this condition : C67]

D12.13 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.

The ammonia injection rate shall be between 84 and 107 lbs/hr.

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

[Devices subject to this condition : C67]

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

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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:**

SOX emissions	AQMD Laboratory Method 307-91	Not Applicable	Fuel Sample
VOC emissions	District Method 25.3	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment
PM2.5	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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 AQMD approval of the source test protocol, but no later than 180 days after initial start-up. 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 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 AQMD approved 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 AQMD 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 natural gas fired turbines only, an alternative to AQMD Method 25.3 for the purpose of demonstrating compliance with BACT as determined by CARB and AQMD, may be the following:

- a) Triplicate stack gas samples are extracted directly into Summa canisters, maintaining a final canister pressure between 400-500 mm Hg absolute,
- b) Pressurization of the Summa canisters is done with zero gas analyzed/certified to containing less than 0.05 ppmv total hydrocarbons as carbon, and
- c) Analysis of Summa canisters is per unmodified EPA Method TO-12 (with preconcentration) or the canister analysis portion of AQMD Method 25.3 with a minimum detection limit of 0.3 ppmvC or less and reported to two significant figures, and
- c) Analysis of Summa canisters is per unmodified EPA Method TO-12 (with preconcentration) or the canister analysis portion of AQMD Method 25.3 with a minimum detection limit of 0.3 ppmvC or less and reported to two significant figures, and

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than unmodified AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval, except for the determination of compliance with the BACT level of 2.0 ppmv VOC calculated as carbon set by CARB for natural gas fired turbines. The test results shall be reported with two significant digits.

The test shall be conducted when this equipment is operating at loads of 100, 75 and 50 percent of maximum load for NOx, CO, VOC, and ammonia tests. The PM10 and PM2.5 tests shall be conducted when this equipment is operating at 100 percent of maximum load.

**[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(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 6-3-2011]**

[Devices subject to this condition : D56]

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
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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 and the results submitted to the District within 45 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 at least quarterly during the first twelve months of operation and at least annually thereafter. The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

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

If the turbine is not in operation during one quarter, then no testing is required during that quarter.

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

[Devices subject to this condition : D56]

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
SOX emissions	AQMD Laboratory Method 307-91	Not Applicable	Fuel Sample
VOC emissions	District Method 25.3	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment
PM2.5	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### 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 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.

For natural gas fired turbines only, an alternative to AQMD Method 25.3 for the purpose of demonstrating compliance with BACT as determined by CARB and AQMD, may be the following:

- a) Triplicate stack gas samples are extracted directly into Summa canisters, maintaining a final canister pressure between 400-500 mm Hg absolute,
- b) Pressurization of the Summa canisters is done with zero gas analyzed/certified to containing less than 0.05 ppmv total hydrocarbons as carbon, and
- c) Analysis of Summa canisters is per unmodified EPA Method TO-12 (with preconcentration) or the canister analysis portion of AQMD Method 25.3 with a minimum detection limit of 0.3 ppmvC or less and reported to two significant figures, and
- d) The temperature of the Summa canisters when extracting samples for analysis is not to be below 70 degrees Fahrenheit.

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than unmodified AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval, except for the determination of compliance with the BACT level of 2.0 ppmv VOC calculated as carbon set by CARB for natural gas fired turbines. The test results shall be reported with two significant digits.

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

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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**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]**

[Devices subject to this condition : D56]

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

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

NOX concentration in ppmv

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.

For turbines designated as non-operational major sources, The NOx CEMS shall be installed, maintained and operated in the accordance with the requirements of Rule 2012, including the requirements of Rule 2012 (c)(9) for sources qualifying as non-operated major NOx sources.

For the purposes of this condition, non-operation shall be defined as zero fuel flow to the turbine verified by the removal of a section of fuel feed line(s) and the placement of a blind flange at each end of the fuel feed line(s).

**[RULE 2009, 1-7-2005; RULE 2012, 5-6-2005]**

[Devices subject to this condition : D10]

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

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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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 to measure CO concentrations over a 15 minute averaging time period.

The CEMS shall be installed 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, the operator shall provide written notification to the District of the exact date of 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 =  $K * C_{co} * F_d [20.9\% - \%O_2 d] [(Q_g * HHV) / 106]$ ,  
where

$K = 7.267 * 10^{-8}$  (lb/scf)/ppm

$C_{co}$  = Average of four consecutive 15 min. ave. CO concentration, ppm

$F_d$  = 8710 dscf/MMBTU natural gas

$\%O_2 d$  = Hourly ave. % by vol. O<sub>2</sub> dry, corresponding to  $C_{co}$

$Q_g$  = Fuel gas usage during the hour, scf/hr

HHV = Gross high heating value of fuel gas, BTU/scf

**[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 218, 5-14-1999]**

[Devices subject to this condition : D56]

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

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

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

**D82.5** The operator shall install and maintain a CEMS to measure the following parameters:

NOX concentration in ppmv

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

The CEMS shall be installed and operated no later than 90 days after initial start-up of the turbine, and in accordance with an approved AQMD REG XX 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, the operator shall provide written notification to the District of the exact date of start-up.

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 provisional certification date of the CEMS, the operator shall comply with the monitoring requirements of Rule 2012(h)(2) and 2012(h)(3).

**[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 6-3-2011; RULE 2012, 5-6-2005]**

**[Devices subject to this condition : D56]**

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

**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 : D10]

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

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.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

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

[Devices subject to this condition : D10]

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

Condition Number D 12- 9

Condition Number D 12-11

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

[Devices subject to this condition : C67]

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

Condition Number D 12-10

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

[Devices subject to this condition : C67]

- E179.6 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- 9

Condition Number D 12-13

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

[Devices subject to this condition : C67]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

E193.2 The operator shall restrict the operation of this equipment according to the following specifications:

In accordance with all air quality mitigation measures stipulated in the final Environmental Impact Report (EIR), State Clearing House #2011091056.

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D56, C67]

E193.3 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

The operator shall record the total net power generated in a calendar month in megawatt-hours.

The operator shall calculate and record greenhouse gas emissions of each calendar month using the following formula:

$$\text{GHG} = 59.187 * \text{FF}$$

Where, GHG is the greenhouse gas emissions in tons of CO<sub>2</sub>E and FF is the monthly fuel usage in millions standard cubic feet.

The GHG emissions from this equipment shall not exceed 280,502 tons per year. The average GHG emissions shall not exceed 1050 pounds per net megawatt-hours. The operator shall calculate and record the GHG emissions in tons per year and pounds per net megawatt-hours on a 12 month rolling average with a new monthly period starting at the beginning of each month.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition. The records shall be made available to AQMD upon request.

[RULE 1714, 11-5-2010]

[Devices subject to this condition : D56]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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

E313.1 This device is classified as a non-operated major NO<sub>x</sub> source as defined under Rule 2012 and shall not be operated unless the Facility Permit holder provides written notification to the Executive Officer 30 days prior to starting operation. In order to maintain the non-operational classification, the Facility Permit holder shall:

- (a) Remove a section of the fuel feed line(s) to the device and place a blind flange on both ends of the fuel feed line(s); and
- (b) Remove a major component of the source necessary for its operation.

Removal of parts or components solely to qualify the device for non-operated classification pursuant to this condition, or replacement of the same removed parts or components resulting in the device no longer being classified as non-operated shall not be deemed to affect the potential to emit within the meanings of Rule 2005, Regulation XIII and Regulation XXX.

This device shall not be operated unless the Facility Permit holder submits a complete application for change of condition to remove this condition from the facility permit 30 days prior to starting operation.

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

[Devices subject to this condition : D10]

E315.1 Once this device is operated, it shall no longer be classified as non-operational. This device shall also meet the monitoring requirements of Rule 2012, subparagraph (c)(2) (A) or (c)(2)(B) no later than 30 calendar days after the start of operation except as provided in Rule 2012, paragraph (c)(10).

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

[Devices subject to this condition : D10]

#### **H. Applicable Rules**

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

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

Contaminant	Rule	Rule/Subpart
NOX	40CFR60, SUBPART	KKKK
SOX	40CFR60, SUBPART	KKKK

[40CFR 60 Subpart KKKK, 7-6-2006]

[Devices subject to this condition : D56]

#### I. Administrative

I297.1 This equipment shall not be operated unless the facility holds 56397 pounds of NO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. RTCs held to satisfy this condition may be transferred only after one year from the initial start of operation. If the hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011]

[Devices subject to this condition : D56]

#### K. Record Keeping/Reporting

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

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

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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 (lb/hr), and lb/MM cubic feet. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF and lbs/MMBtu.

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), heating content of the fuel, 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(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 6-3-2011]**

[Devices subject to this condition : D56]

K67.7 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 : D56]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION I: PLANS AND SCHEDULES

This section lists all plans approved by AQMD for the purposes of meeting the requirements of applicable AQMD rules specified below. The operator shall comply with all conditions specified in the approval of these plans, with the following exceptions:

- a. The operator does not have to comply with NOx or SOx emission limits from rules identified in Table 1 or Table 2 of Rule 2001(j) which become effective after December 31, 1993.
- b. The operator does not have to comply with NOx or SOx emission limits from rules identified in Table 1 or Table 2 of Rule 2001(j) after the facility has received final certification of all monitoring and reporting requirements specified in Section F and Section G.

Documents pertaining to the plan applications listed below are available for public review at AQMD Headquarters. Any changes to plan applications will require permit modification in accordance with Title V permit revision procedures.

#### List of approved plans:

Application	Rule
213654	1404

NOTE: This section does not list compliance schedules pursuant to the requirements of Regulation XXX - Title V Permits; Rule 3004(a)(10)(C). For equipment subject to a variance, order for abatement, or alternative operating condition granted pursuant to Rule 518.2, equipment specific conditions are added to the equipment in Section D or H of the permit.

**FACILITY PERMIT TO OPERATE  
PASADENA CITY, DWP**

**SECTION J: AIR TOXICS**

**NOT APPLICABLE**

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION K: TITLE V Administration

#### GENERAL PROVISIONS

1. This permit may be revised, revoked, reopened and reissued, or terminated for cause, or for failure to comply with regulatory requirements, permit terms, or conditions. [3004(a)(7)(C)]
2. This permit does not convey any property rights of any sort or any exclusive privilege. [3004(a)(7)(E)]

#### Permit Renewal and Expiration

3. (A) Except for solid waste incineration facilities subject to standards under section 129(e) of the Clean Air Act, this permit shall expire five years from the date that this Title V permit is issued. The operator's right to operate under this permit terminates at midnight on this date, unless the facility is protected by an application shield in accordance with Rule 3002(b), due to the filing of a timely and complete application for a Title V permit renewal, consistent with Rule 3003. [3004(a)(2), 3004(f)]  
  
(B) A Title V permit for a solid waste incineration facility combusting municipal waste subject to standards under Section 129(e) of the Clean Air Act shall expire 12 years from the date of issuance unless such permit has been renewed pursuant to this regulation. These permits shall be reviewed by the Executive Officer at least every five years from the date of issuance. [3004(f)(2)]
4. To renew this permit, the operator shall submit to the Executive Officer an application for renewal at least 180 days, but not more than 545 days, prior to the expiration date of this permit. [3003(a)(6)]

#### Duty to Provide Information

5. The applicant for, or holder of, a Title V permit shall furnish, pursuant to Rule 3002(d) and (e), timely information and records to the Executive Officer or designee within a reasonable time as specified in writing by the Executive Officer or designee. [3004(a)(7)(F)]

#### Payment of Fees

6. The operator shall pay all required fees specified in Regulation III - Fees. [3004(a)(7)(G)]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION K: TITLE V Administration

#### Reopening for Cause

7. The Executive Officer will reopen and revise this permit if any of the following circumstances occur:
- (A) Additional regulatory requirements become applicable with a remaining permit term of three or more years. Reopening is not required if the effective date of the requirement is later than the expiration date of this permit, unless the permit or any of its terms and conditions has been extended pursuant to paragraph (f)(4) of Rule 3004.
  - (B) The Executive Officer or EPA Administrator determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
  - (C) The Executive Officer or EPA Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [3005(g)(1)]

#### COMPLIANCE PROVISIONS

8. The operator shall comply with all regulatory requirements, and all permit terms and conditions, except:
- (A) As provided for by the emergency provisions of condition no. 17 or condition no. 18, or
  - (B) As provided by an alternative operating condition granted pursuant to a federally approved (SIP-approved) Rule 518.2.

Any non-compliance with any federally enforceable permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or denial of a permit renewal application. Non-compliance may also be grounds for civil or criminal penalties under the California State Health and Safety Code. [3004(a)(7)(A)]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION K: TITLE V Administration

9. The operator shall allow the Executive Officer or authorized representative, upon presentation of appropriate credentials to:
- (A) Enter the operator's premises where emission-related activities are conducted, or records are kept under the conditions of this permit;
  - (B) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
  - (C) Inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - (D) Sample or monitor at reasonable times, substances or parameters for the purpose of assuring compliance with the facility permit or regulatory requirements. [3004(a)(10)(B)]
10. All terms and conditions in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the EPA Administrator and citizens under the federal Clean Air Act, unless the term or condition is designated as not federally enforceable. Each day during any portion of which a violation occurs is a separate offense. [3004(g)]
11. A challenge to any permit condition or requirement raised by EPA, the operator, or any other person, shall not invalidate or otherwise affect the remaining portions of this permit. [3007(b)]
12. The filing of any application for a permit revision, revocation, or termination, or a notification of planned changes or anticipated non-compliance does not stay any permit condition. [3004(a)(7)(D)]
13. It shall not be a defense for a person in an enforcement action, including those listed in Rule 3002(c)(2), that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit, except as provided for in "Emergency Provisions" of this section. [3004(a)(7)(H)]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION K: TITLE V Administration

14. The operator shall not build, erect, install, or use any equipment, the use of which, without resulting in a reduction in the total release of air contaminants to atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the California Health and Safety Code or of AQMD rules. This rule shall not apply to cases in which the only violation involved is of Section 41700 of the California Health and Safety Code, or Rule 402 of AQMD Rules. [408]
15. Nothing in this permit or in any permit shield can alter or affect:
  - (A) Under Section 303 of the federal Clean Air Act, the provisions for emergency orders;
  - (B) The liability of the operator for any violation of applicable requirements prior to or at the time of permit issuance;
  - (C) The applicable requirements of the Acid Rain Program, Regulation XXXI;
  - (D) The ability of EPA to obtain information from the operator pursuant to Section 114 of the federal Clean Air Act;
  - (E) The applicability of state or local requirements that are not "applicable requirements", as defined in Rule 3000, at the time of permit issuance but which do apply to the facility, such as toxics requirements unique to the State; and
  - (F) The applicability of regulatory requirements with compliance dates after the permit issuance date. [3004(c)(3)]
16. For any portable equipment that requires an AQMD or state permit or registration, excluding a) portable engines, b) military tactical support equipment and c) AQMD-permitted portable equipment that are not a major source, are not located at the facility for more than 12 consecutive months after commencing operation, and whose operation does not conflict with the terms or conditions of this Title V permit: 1) the facility operator shall keep a copy of the AQMD or state permit or registration; 2) the equipment operator shall comply with the conditions on the permit or registration and all other regulatory requirements; and 3) the facility operator shall treat the permit or registration as a part of its Title V permit, subject to recordkeeping, reporting and certification requirements. [3004(a)(1)]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION K: TITLE V Administration EMERGENCY PROVISIONS

17. An emergency<sup>1</sup> constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limit only if:
- (A) Properly signed, contemporaneous operating records or other credible evidence demonstrate that:
    - (1) An emergency occurred and the operator can identify the cause(s) of the emergency;
    - (2) The facility was operated properly (i.e. operated and maintained in accordance with the manufacturer's specifications, and in compliance with all regulatory requirements or a compliance plan), before the emergency occurred;
    - (3) The operator took all reasonable steps to minimize levels of emissions that exceeded emissions standard, or other requirements in the permit; and,
    - (4) The operator submitted a written notice of the emergency to the AQMD within two working days of the time when the emissions limitations were exceeded due to the emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
  - (B) The operator complies with the breakdown provisions of Rule 430 – Breakdown Provisions, or subdivision (i) of Rule 2004 – Requirements, whichever is applicable. [3002(g), 430, 2004(i)]
18. The operator is excused from complying with any regulatory requirement that is suspended by the Executive Officer during a state of emergency or state of war emergency, in accordance with Rule 118 - Emergencies. [118]

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<sup>1</sup> "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the operator, including acts of God, which: (A) requires immediate corrective action to restore normal operation; and (B) causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency; and (C) is not caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION K: TITLE V Administration RECORDKEEPING PROVISIONS

19. In addition to any other recordkeeping requirements specified elsewhere in this permit, the operator shall keep records of required monitoring information, where applicable, that include:

- (A) The date, place as defined in the Title V permit, and time of sampling or measurements;
- (B) The date(s) analyses were performed;
- (C) The company or entity that performed the analyses;
- (D) The analytical techniques or methods used;
- (E) The results of such analyses; and
- (F) The operating conditions as existing at the time of sampling or measurement. [3004(a)(4)(B)]

20. The operator shall maintain records pursuant to Rule 109 and any applicable material safety data sheet (MSDS) for any equipment claimed to be exempt from a written permit by Rule 219 based on the information in those records. [219(t)]

21. The operator shall keep all records of monitoring data required by this permit or by regulatory requirements for a period of at least five years from the date of the monitoring sample, measurement, report, or application. [3004(a)(4)(E)]

### REPORTING PROVISIONS

22. The operator shall comply with the following requirements for prompt reporting of deviations:

- (A) Breakdowns shall be reported as required by Rule 430 – Breakdown Provisions or subdivision (i) of Rule 2004 - Requirements, whichever is applicable.

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **SECTION K: TITLE V Administration**

- (B) Other deviations from permit or applicable rule emission limitations, equipment operating conditions, or work practice standards, determined by observation or by any monitoring or testing required by the permit or applicable rules that result in emissions greater than those allowed by the permit or applicable rules shall be reported within 72 hours (unless a shorter reporting period is specified in an applicable State or Federal Regulation) of discovery of the deviation by contacting AQMD enforcement personnel assigned to this facility or otherwise calling (800) CUT-SMOG.
  - (C) A written report of such deviations reported pursuant to (B), and any corrective actions or preventative measures taken, shall be submitted to AQMD, in an AQMD approved format, within 14 days of discovery of the deviation.
  - (D) All other deviations shall be reported with the monitoring report required by condition no. 23. [3004(a)(5)]
23. Unless more frequent reporting of monitoring results are specified in other permit conditions or in regulatory requirements, the operator shall submit reports of any required monitoring to the AQMD at least twice per year. The report shall include a) a statement whether all monitoring required by the permit was conducted; and b) identification of all instances of deviations from permit or regulatory requirements. A report for the first six calendar months of the year is due by August 31 and a report for the last six calendar months of the year is due by February 28. [3004(a)(4)(F)]
24. The operator shall submit to the Executive Officer and to the Environmental Protection Agency (EPA), an annual compliance certification. For RECLAIM facilities, the certification is due when the Annual Permit Emissions Program (APEP) report is due and shall cover the same reporting period. For other facilities, the certification is due on March 1 for the previous calendar year. The certification need not include the period preceding the date the initial Title V permit was issued. Each compliance certification shall include:
- (A) Identification of each permit term or condition that is the basis of the certification;

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **SECTION K: TITLE V Administration**

- (B) The compliance status during the reporting period;
- (C) Whether compliance was continuous or intermittent;
- (D) The method(s) used to determine compliance over the reporting period and currently, and
- (E) Any other facts specifically required by the Executive Officer to determine compliance.

The EPA copy of the certification shall be sent to: Director of the Air Division Attn:  
Air-3 USEPA, Region IX 75 Hawthorne St. San Francisco, CA 94105 [3004(a)(10)(E)]

25. All records, reports, and documents required to be submitted by a Title V operator to AQMD or EPA shall contain a certification of accuracy consistent with Rule 3003(c)(7) by a responsible official (as defined in Rule 3000). [3004(a)(12)]

### **PERIODIC MONITORING**

26. All periodic monitoring required by this permit pursuant to Rule 3004(a)(4)(c) is based on the requirements and justifications in the AQMD document "Periodic Monitoring Guidelines for Title V Facilities" or in case-by-case determinations documented in the TitleV application file. [3004(a)(4)]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION K: TITLE V Administration

#### *FACILITY RULES*

*This facility is subject to the following rules and regulations*

With the exception of Rule 402, 473, 477, 1118 and Rules 1401 through 1420, the following rules that are designated as non-federally enforceable are pending EPA approval as part of the state implementation plan. Upon the effective date of that approval, the approved rule(s) will become federally enforceable, and any earlier versions of those rules will no longer be federally enforceable.

<b>RULE SOURCE</b>	<b>Adopted/Amended Date</b>	<b>FEDERAL Enforceability</b>
RULE 1110.2	2-1-2008	Federally enforceable
RULE 1110.2	9-7-2012	Non federally enforceable
RULE 1113	7-13-2007	Federally enforceable
RULE 1113	9-6-2013	Non federally enforceable
RULE 1135	7-19-1991	Federally enforceable
RULE 1140	2-1-1980	Federally enforceable
RULE 1140	8-2-1985	Non federally enforceable
RULE 1171	2-1-2008	Federally enforceable
RULE 1171	5-1-2009	Non federally enforceable
RULE 118	12-7-1995	Non federally enforceable
RULE 1303(a)(1)-BACT	12-6-2002	Non federally enforceable
RULE 1303(a)(1)-BACT	5-10-1996	Federally enforceable
RULE 1303(b)(2)-Offset	12-6-2002	Non federally enforceable
RULE 1303(b)(2)-Offset	5-10-1996	Federally enforceable
RULE 1304(a)-Modeling and Offset Exemption	6-14-1996	Federally enforceable
RULE 1404	4-6-1990	Non federally enforceable
RULE 1470	5-4-2012	Non federally enforceable
RULE 1470	6-1-2007	Non federally enforceable
RULE 1703 - PSD Analysis	10-7-1988	Federally enforceable
RULE 1703(a)(2) - PSD-BACT	10-7-1988	Federally enforceable

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION K: TITLE V Administration

<b>RULE SOURCE</b>	<b>Adopted/Amended Date</b>	<b>FEDERAL Enforceability</b>
RULE 1714	11-5-2010	Non federally enforceable
RULE 2005	6-3-2011	Federally enforceable
RULE 2009	1-7-2005	Non federally enforceable
RULE 2009	5-11-2001	Non federally enforceable
RULE 2012	5-11-2001	Federally enforceable
RULE 2012	5-6-2005	Federally enforceable
RULE 204	10-8-1993	Federally enforceable
RULE 217	1-5-1990	Federally enforceable
RULE 218	5-14-1999	Federally enforceable
RULE 219	5-3-2013	Non federally enforceable
RULE 219	9-4-1981	Federally enforceable
RULE 3002	11-14-1997	Federally enforceable
RULE 3002	11-5-2010	Non federally enforceable
RULE 3003	11-14-1997	Federally enforceable
RULE 3003	3-16-2001	Non federally enforceable
RULE 3004	12-12-1997	Federally enforceable
RULE 3004(a)(4)-Periodic Monitoring	12-12-1997	Federally enforceable
RULE 3005	11-14-1997	Federally enforceable
RULE 3005	3-16-2001	Non federally enforceable
RULE 3007	10-8-1993	Federally enforceable
RULE 301	6-6-2014	Non federally enforceable
RULE 304	7-9-2004	Non federally enforceable
RULE 401	11-9-2001	Non federally enforceable
RULE 401	3-2-1984	Federally enforceable
RULE 402	5-7-1976	Non federally enforceable
RULE 404	2-7-1986	Federally enforceable
RULE 407	4-2-1982	Federally enforceable
RULE 408	5-7-1976	Federally enforceable
RULE 409	8-7-1981	Federally enforceable
RULE 430	7-12-1996	Non federally enforceable
RULE 431.2	5-4-1990	Federally enforceable
RULE 431.2	9-15-2000	Non federally enforceable

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### SECTION K: TITLE V Administration

<b>RULE SOURCE</b>	<b>Adopted/Amended Date</b>	<b>FEDERAL Enforceability</b>
RULE 475	10-8-1976	Federally enforceable
RULE 475	8-7-1978	Non federally enforceable
RULE 701	6-13-1997	Federally enforceable
CA PRC CEQA	11-23-1970	Non federally enforceable
40CFR 60 Subpart GG	2-24-2006	Federally enforceable
40CFR 60 Subpart GG	3-6-1981	Federally enforceable
40CFR 60 Subpart IIII	1-30-2013	Federally enforceable
40CFR 60 Subpart KKKK	7-6-2006	Federally enforceable
40CFR 63 Subpart GG	4-20-2006	Federally enforceable
40CFR 63 Subpart ZZZZ	1-30-2013	Federally enforceable
40CFR 68 - Accidental Release Prevention	5-24-1996	Federally enforceable
40CFR 72 - Acid Rain Provisions	11-24-1997	Federally enforceable
40CFR 73 Subpart B	1-11-1993	Federally enforceable

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **APPENDIX A: NOX AND SOX EMITTING EQUIPMENT EXEMPT FROM WRITTEN PERMIT PURSUANT TO RULE 219**

1. MOBILE CRANE, GASOLINE
2. FORK LIFT, GASOLINE
3. INTERNAL COMBUSTION ENGINES, < 50 HP, GASOLINE
4. VACUUM CLEANER, <50 HP, GASOLINE
5. MAN LIFT, GASOLINE

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **APPENDIX B: RULE EMISSION LIMITS [RULE 1113 07-13-2007]**

- (1) Except as provided in paragraphs (c)(2), (c)(3), (c)(4), and specified coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage any architectural coating for use in the District which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, and no person shall apply or solicit the application of any architectural coating within the District that exceeds 250 grams of VOC per liter of coating as calculated in this paragraph.
- (2) Except as provided in paragraphs (c)(3), (c)(4), and designated coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified, and no person shall apply or solicit the application of any architectural coating within the District that exceeds the VOC limit as specified in this paragraph. No person shall apply or solicit the application within the District of any industrial maintenance coatings, except anti-graffiti coatings, for residential use or for use in areas such as office space and meeting rooms of industrial, commercial or institutional facilities not exposed to such extreme environmental conditions described in the definition of industrial maintenance coatings; or of any rust-preventative coating for industrial use, unless such a rust preventative coating complies with the Industrial Maintenance Coating VOC limit specified in the Table of Standards.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 07-13-2007] TABLE OF STANDARDS VOC LIMITS

**Grams of VOC Per Liter of Coating,  
Less Water and Less Exempt Compounds**

COATING CATEGORY	Ceiling Limit	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Bond Breakers	350							
Clear Wood Finishes	350					275		
Varnish	350					275		
Sanding Sealers	350					275		
Lacquer	680	550			275			
Clear Brushing Lacquer	680				275			
Concrete-Curing Compounds	350						100	
Concrete-Curing Compounds For Roadways and Bridges**	350							
Dry-Fog Coatings	400						150	
Fire-Proofing Exterior Coatings	450	350						
Fire-Retardant Coatings***								
Clear	650							
Pigmented	350							
Flats	250	100						50
Floor Coatings	420		100			50		
Graphic Arts (Sign) Coatings	500							
Industrial Maintenance (IM) Coatings	420			250		100		
High Temperature IM Coatings			420					
Zinc-Rich IM Primers	420		340			100		
Japans/Faux Finishing Coatings	700	350						
Magnesite Cement Coatings	600	450						
Mastic Coatings	300							
Metallic Pigmented Coatings	500							
Multi-Color Coatings	420	250						
Nonflat Coatings	250		150			50		

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 07-13-2007]

COATING CATEGORY	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Nonflat High Gloss	250		150				50	
Pigmented Lacquer	680	550			275			
Pre-Treatment Wash Primers	780		420					
Primers, Sealers, and Undercoaters	350		200			100		
Quick-Dry Enamels	400		250			150	50	
Quick-Dry Primers, Sealers, and Undercoaters	350		200			100		
Recycled Coatings			250					
Roof Coatings	300		250		50			
Roof Coatings, Aluminum	500				100			
Roof Primers, Bituminous	350		350					
Rust Preventative Coatings	420		400			100		
Shellac								
Clear	730							
Pigmented	550							
Specialty Primers	350					250	100	
Stains	350		250				100	
Stains, Interior	250							
Swimming Pool Coatings								
Repair	650		340					
Other	340							
Traffic Coatings	250	150					100	
Waterproofing Sealers	400		250			100		
Waterproofing Concrete/Masonry Sealers	400					100		
Wood Preservatives								
Below-Ground	350							
Other	350							

\* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards.

\*\* Does not include compounds used for curbs and gutters, sidewalks, islands, driveways and other miscellaneous concrete areas.

\*\*\* The Fire-Retardant Coating category will be eliminated on January 1, 2007 and subsumed by the coating category for which they are formulated.

# FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

## APPENDIX B: RULE EMISSION LIMITS [RULE 1113 07-13-2007]

### TABLE OF STANDARDS (cont.) VOC LIMITS

#### Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **APPENDIX B: RULE EMISSION LIMITS [RULE 1113 09-06-2013]**

- (1) Except as provided in paragraphs (c)(3), (c)(4), and designated coatings averaged under (c)(6), no person shall supply, sell, offer for sale, market, manufacture, blend, repackage, apply, store at a worksite, or solid the application of any architectural coating within in the District:
  - (A) That is listed in the Table of Standards 1 and contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified; or
  - (B) That is not listed in the Table of Standards 1, and contains VOC (excluding any colorant added to tint bases) in excess of 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, until January 1, 2014, at which time the limit drops to 50 grams of VOC per liter of coating, less water, less exempt compounds (0.42 pounds per gallon).
- (2) No person within the District shall add colorant at the point of sale that is listed in the Table of Standards 2 and contains VOC in excess of the corresponding VOC limit specified in the Table of Standards 2, after the effective date specified.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 09-06-2013]

#### TABLE OF STANDARDS 1 VOC LIMITS

**Grams of VOC Per Liter of Coating,  
Less Water and Less Exempt Compounds**

COATING CATEGORY	Ceiling Limit <sup>1</sup>	Current Limit <sup>2</sup>	Effective Date		
			7/1/08	1/1/12	1/1/14
Bond Breakers		350			
Clear Wood Finishes		275			
Varnish	350	275			
Sanding Sealers	350	275			
Lacquer		275			
Concrete-Curing Compounds		100			
Concrete-Curing Compounds For Roadways and Bridges <sup>3</sup>		350			
Concrete Surface Retarder		250			50
Driveway Sealer		100		50	
Dry-Fog Coatings		150			50
Faux Finishing Coatings					
Clear Topcoat		350		200	100
Decorative Coatings		350			
Glazes		350			
Japan		350			
Trowel Applied Coatings		350		150	50
Fire-Proofing Coatings		350			150
Flats	250	50	50		
Floor Coatings	100	50			
Form Release Compound		250			100
Graphic Arts (Sign) Coatings		500			150
Industrial Maintenance (IM) Coatings	420	100			
High Temperature IM Coatings		420			
Non-Sacrificial Anti-Graffiti Coatings		100			
Zinc-Rich IM Primers		100			
Magnesite Cement Coatings		450			
Mastic Coatings		300			100
Metallic Pigmented Coatings	500	500			150
Multi-Color Coatings		250			
Nonflat Coatings	150	50			
Pre-Treatment Wash Primers		420			
Primers, Sealers, and Undercoaters		100			
Reactive Penetrating Sealers		350			

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 09-06-2013]

Recycled Coatings		250			
Roof Coatings		50			
Roof Coatings, Aluminum		100			
Roof Primers, Bituminous		350			
Rust Preventative Coatings	400	100			
Sacrificial Anti-Graffiti Coatings		100		50	
Shellac					
Clear		730			

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 09-06-2013]

COATING CATEGORY	Ceiling Limit <sup>1</sup>	Current Limit <sup>2</sup>	Effective Date		
			7/1/08	1/1/12	1/1/14
Pigmented		550			
Specialty Primers		100			
Stains	350	100			
Stains, Interior	250	250			
Stone Consolidant		450			
Swimming Pool Coatings					
Repair		340			
Other		340			
Traffic Coatings		100			
Waterproofing Sealers		100			
Waterproofing Concrete/Masonry Sealers		100			
Wood Preservatives		350			

- 1 The specified ceiling limits are applicable to products sold under the Averaging Compliance Option.
- 2 The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards.
- 3 Does not include compounds used for curbs and gutters, sidewalks, islands, driveways and other miscellaneous concrete areas.

#### TABLE OF STANDARDS 1 (cont.) VOC LIMITS

##### Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

#### TABLE OF STANDARDS 2 VOC LIMITS FOR COLORANTS

##### Grams of VOC Per Liter of Colorant Less Water and Less Exempt Compounds

COLORANT ADDED TO	Limit <sup>4</sup>
Architectural Coatings, excluding IM Coatings	50
Solvent-Based IM	600
Waterborne IM	50

4. Effective January 1, 2014.

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **APPENDIX B: RULE EMISSION LIMITS [RULE 1140 02-01-1980]**

- (1) The operator shall not, if he complies with an applicable performance standard in section (b)(4) of Rule 1140, discharge into the atmosphere from any abrasive blasting 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 as No. 2 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 (1)(A).
  
- (2) The operator shall not, if he is not complying with an applicable performance standard in section (b)(4) of Rule 1140, discharge into the atmosphere from any abrasive blasting 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 as 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 (2)(A).

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **APPENDIX B: RULE EMISSION LIMITS [RULE 1140 08-02-1985]**

- (1) The operator shall not, if he complies with an applicable performance standard in section (b)(4) of Rule 1140, discharge into the atmosphere from any abrasive blasting 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 as No. 2 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 (1)(A).
- (2) The operator shall not, if he is not complying with an applicable performance standard in section (b)(4) of Rule 1140, discharge into the atmosphere from any abrasive blasting 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 as 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 (2)(A).

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 02-01-2008]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
SOLVENT CLEANING ACTIVITY	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application			
(i) General	25 (0.21)		
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)		
(iii) Medical Devices & Pharmaceuticals	800 (6.7)		
(B) Repair and Maintenance Cleaning			
(i) General	25 (0.21)		
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)		

## FACILITY PERMIT TO OPERATE PASADENA CITY. DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 02-01-2008]

SOLVENT CLEANING ACTIVITY (cont.)	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(iii) Medical Devices & Pharmaceuticals			
(A) Tools, Equipment, & Machinery	800 (6.7)		
(B) General Work Surfaces	600 (5.0)		
(C) Cleaning of Coatings or Adhesives Application Equipment	25 (0.21)		
(D) Cleaning of Ink Application Equipment			
(i) General	25 (0.21)		
(ii) Flexographic Printing	25 (0.21)		
(iii) Gravure Printing			
(A) Publication	100 (0.83)		
(B) Packaging	25 (0.21)		
(iv) Lithographic (Offset) or Letter Press Printing			
(A) Roller Wash, Blanket Wash, & On-Press Components			
(I) Newsprint	100 (0.83)		

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 02-01-2008]

SOLVENT CLEANING ACTIVITY (cont.)	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(II) Other Substrates	500 (4.2)	100 (0.83)	
(B) Removable Press Components	25 (0.21)		
(v) Screen Printing	500 (4.2)	100 (0.83)	
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	650 (5.4)	650 (5.4)	100 (0.83)
(vii) Specialty Flexographic Printing	100 (0.83)		
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)		

\* The specified limits remain in effect unless revised limits are listed in subsequent columns.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 05-01-2009]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS*	EFFECTIVE 1/1/2010
	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application		
(i) General	25 (0.21)	
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)	
(iii) Medical Devices & Pharmaceuticals	800 (6.7)	
(B) Repair and Maintenance Cleaning		
(i) General	25 (0.21)	
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)	

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 05-01-2009]

SOLVENT CLEANING ACTIVITY (cont.)	CURRENT LIMITS*	EFFECTIVE 1/1/2010
	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(iii) Medical Devices & Pharmaceuticals		
(A) Tools, Equipment, & Machinery	800 (6.7)	
(B) General Work Surfaces	600 (5.0)	
(C) Cleaning of Coatings or Adhesives Application Equipment	25 (0.21)	
(D) Cleaning of Ink Application Equipment		
(i) General	25 (0.21)	
(ii) Flexographic Printing	25 (0.21)	
(iii) Gravure Printing		
(A) Publication	100 (0.83)	
(B) Packaging	25 (0.21)	
(iv) Lithographic (Offset) or Letter Press Printing		
(A) Roller Wash, Blanket Wash, & On-Press Components	100 (0.83)	

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 05-01-2009]

SOLVENT CLEANING ACTIVITY (cont.)	CURRENT LIMITS*	EFFECTIVE 1/1/2010
	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(B) Removable Press Components	25 (0.21)	
(v) Screen Printing	100 (0.83)	
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	650 (5.4)	100 (0.83)
(vii) Specialty Flexographic Printing	100 (0.83)	
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)	

\* The specified limits remain in effect unless revised limits are listed in subsequent columns.

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 404 02-07-1986]

The operator shall not discharge into the atmosphere from this equipment, particulate matter in excess of the concentration at standard conditions, shown in Table 404(a).

Where the volume discharged is between figures listed in the Table, the exact concentration permitted to be discharged shall be determined by linear interpolation.

For the purposes of this rule, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

**TABLE 404(a)**

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter <sup>1</sup> Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
		Milligrams per Cubic Meter	Grains per Cubic Foot			Milligrams per Cubic Meter	Grains per Cubic Foot
Cubic meters Per Minute	Cubic feet Per Minute			Cubic meters Per Minute	Cubic feet Per Minute		
25 or less	883 or less	450	0.196	900	31780	118	0.0515
30	1059	420	.183	1000	35310	113	.0493
35	1236	397	.173	1100	38850	109	.0476
40	1413	377	.165	1200	42380	106	.0463
45	1589	361	.158	1300	45910	102	.0445

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 404 02-07-1986]

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
		Milligrams per Cubic Meter	Grains per Cubic Foot			Milligrams per Cubic Meter	Grains per Cubic Foot
Cubic meters Per Minute	Cubic feet Per Minute			Cubic meters Per Minute	Cubic feet Per Minute		
50	1766	347	.152	1400	49440	100	.0437
60	2119	324	.141	1500	52970	97	.0424
70	2472	306	.134	1750	61800	92	.0402
80	2825	291	.127	2000	70630	87	.0380
90	3178	279	.122	2250	79460	83	.0362
100	3531	267	.117	2500	88290	80	.0349
125	4414	246	.107	3000	105900	75	.0327
150	5297	230	.100	4000	141300	67	.0293
175	6180	217	.0947	5000	176600	62	.0271
200	7063	206	.0900	6000	211900	58	.0253
250	8829	190	.0830	8000	282500	52	.0227
300	10590	177	.0773	10000	353100	48	.0210
350	12360	167	.0730	15000	529700	41	.0179
400	14130	159	.0694	20000	706300	37	.0162
450	15890	152	.0664	25000	882900	34	.0148

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [RULE 404 02-07-1986]

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter <sup>7</sup> Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
		Milligrams per Cubic Meter	Grains per Cubic Foot			Milligrams per Cubic Meter	Grains per Cubic Foot
Cubic meters Per Minute	Cubic feet Per Minute			Cubic meters Per Minute	Cubic feet Per Minute		
500	17660	146	.0637	30000	1059000	32	.0140
600	21190	137	.0598	40000	1413000	28	.0122
700	24720	129	.0563	50000	1766000	26	.0114
800	28250	123	.0537	70000 or more	2472000 or more	23	.0100

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

1. A Title V permit revision is not required for emission increases that are authorized by allowances acquired under the Acid Rain Program, provided that the increases do not trigger a Title V permit revision under any other applicable requirement. [70.6 (a)(4)(ii)]

#### Monitoring Requirements

2. The owners and operators and, to the extent applicable, the designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR Parts 74, 75, and 76. [40 CFR 72.50, 72.31, 72.9(b)(1)]
3. The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the acid rain emissions limitations and emissions reduction requirements for sulfur dioxide (SO<sub>2</sub>) under the Acid Rain Program. [40 CFR 72.9(b)(2), 40 CFR 75.2]
4. The requirements of 40 CFR Parts 74 and 75 shall not affect the responsibility of the operator to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements and other provisions of this permit. [40 CFR 72.9(b)(3), 40 CFR 72.5]

#### Sulfur Dioxide Requirements

5. The owners and operators of each source and each affected unit at the source shall:
  - (A) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR Part 73, Section 73.34(C)) not less than the total annual emissions of SO<sub>2</sub> for the previous calendar year from the unit; and, [40 CFR 72.9(c)(i)],
  - (B) Comply with the applicable acid rain emissions limitations for SO<sub>2</sub>. [40 CFR 72.9(c)(ii)]
6. Each ton of SO<sub>2</sub> emitted in excess of the acid rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 72.9(g)(7)]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

7. SO<sub>2</sub> allowances shall be held in, deducted from, or transferred among allowance tracking system accounts in accordance with the Acid Rain Program. [40 CFR 72.9(g)(4)]
8. A SO<sub>2</sub> allowance shall not be deducted in order to comply with the requirements under paragraph 41(A) of the SO<sub>2</sub> requirements prior to the calendar year for which the allowance was allocated. [40 CFR 72.9(g)(5)]
9. An affected unit shall be subject to the SO<sub>2</sub> requirements under the Acid Rain Program as follows:[40 CFR 72.6(a)]
  - (A) Starting January 1, 2000, an affected unit under 40 CFR Part 72, Section 72.6(a)(2); or [40 CFR 72.6(a)(2)]
  - (B) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 40 CFR Part 72, Section 72.6(a)(3). [40CFR 72.6(a)(3)]
10. An allowance allocated by the EPA administrator under the Acid Rain Program is a limited authorization to emit SO<sub>2</sub> in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the acid rain permit application, the acid rain permit, or the written exemption under 40 CFR Part 72, Sections 72.7, 72.8, or 72.14, and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72.9 (c)(6)]
11. An allowance allocated by the EPA Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72.9(c)(7)]

### Excess Emissions Requirements

12. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77. [40 CFR 72.9(e)]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

13. The owners and operators of an affected unit that has excess emissions in any calendar year shall: [40 CFR 72.9(e)(2)]
- (A) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and [40 CFR 72.9(e)(2)(i)]
- (B) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77. [40 CFR 72.9(e)(2)(ii)]

### **Recordkeeping and Reporting Requirements**

14. Unless otherwise provided, the owners and operators of the source and each affected unit at the source that are subject to the acid rain provisions under Title IV shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the EPA Administrator or the Executive Officer: [40 CFR 72.9(f)(1)]
- (A) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such five year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative; [40 CFR 72.9(f)(1)(i)]
- (B) All emissions monitoring information, in accordance with 40 CFR Part 75; [40 CFR 72.9(f)(1)(ii)]
- (C) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and, [40 CFR 72.9(f)(1)(iii)]
- (D) Copies of all documents used to complete an acid rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program. [40 CFR 72.9(f)(1)(iv)]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

15. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72 Subpart I and 40 CFR Part 75. [40 CFR 72.9(f)(2)]

#### Liability

16. Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete acid rain permit application, an acid rain permit, or a written exemption under 40 CFR Part 72, Sections 72.7, 72.8, or 72.14, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to Section 113(c) of the Act. [40 CFR 72.9 (g)(1)]
17. Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to Section 113(c) of the Act and 18 U.S.C. 1001. [40 CFR 72.9 (g)(2)]
18. No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect. [40 CFR 72.9 (g)(3)]
19. Each affected source and each affected unit shall meet the requirements of the Acid Rain Program. [40 CFR 72.9 (g)(4)]
20. Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source. [40 CFR 72.9 (g)(5)]

## FACILITY PERMIT TO OPERATE PASADENA CITY, DWP

### APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

21. Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR Part 72, Section 72.44 (Phase II repowering extension plans) and 40 CFR Part 76, Section 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR Part 75, Sections 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative. [40 CFR 72.9 (g)(6)]
22. Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act. [40 CFR 72.9 (g)(7)]

#### Effect on Other Authorities

23. No provision of the Acid Rain Program, an acid rain permit application, an acid rain permit, or a written exemption under 40 CFR Part 72, Sections 72.7, 72.8, or 72.14 shall be construed as: [40 CFR 72.9 (h)]
  - (A) Except as expressly provided in Title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of Title I of the Act relating to applicable National Ambient Air Quality Standards or state implementation plans; [40 CFR 72.9 (h)(1)]
  - (B) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act; [40 CFR 72.9 (h)(2)]

## **FACILITY PERMIT TO OPERATE PASADENA CITY, DWP**

### **APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]**

(C) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law; [40 CFR 72.9 (h)(3)]

(D) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or, [40 CFR 72.9 (h)(4)]

(E) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established. [40 CFR 72.9 (h)(5)]