



# South Coast Air Quality Management District

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

February 15, 2008

Mr. Ned Bassin, P.E.  
City of Glendale Water and Power  
141 North Glendale Avenue, Level 4  
Glendale, CA 91206-4496

Dear Mr. Bassin:

Please find attached the revised version of your facility permit for Grayson Power Plant, ID 800327. The revised permit reflects administrative revisions that you requested on February 16, 2006 which include 1) rename operator to Glendale City, Glendale Water and Power, 2) rename equipment address to 800 Air Way, 3) change title of responsible official to director of Glendale Water and Power, and 4) change contact person to Ned Bassin, Power Management Administrator. The revised permit also includes permit to operate for boilers #1, #2, gas turbine 8A, 8B, and 8C. The corresponding application numbers are summarized in the table below:

Application	Description	Device ID#	Process ID
293130	Boiler #1, issue P/O, move to Section D from H	D1	1
293129	Boiler #2, issue P/O, move to Section D from H	D2	1
370621	Gas Turbine 8A, issue P/O, move to Section D from H	D4	1
344955	Gas Turbine 8B, issue P/O, move to Section D from H	D5	1
344956	Gas Turbine 8C, issue P/O, move to Section D from H	D6	1
364302	SCR for Turbine 8A, issue P/O, move to Section D from H	C51, C52	1
349715	SCR for Turbine 8B/C, issue P/O, move to Section D from H	C53, C54	1
370306	Ammonia Tank, issue P/O, move to Section D from H	D57	1
407834	Gas Turbine 9, issue P/O, move to Section D from H	D58	1
407836	SCR for Turbine 9, issue P/O, move to Section D from H	C61, C62	1
407838	Ammonia Tank, issue P/O, move to Section D from H	D63	1
454011	Administrative Change – Title V Facility Permit/Non-RECLAIM		

Please review the attached Sections A and D carefully, then insert the enclosed section into your Facility Permit and discard the earlier version. Questions concerning changes to your permit should be directed to Mr. Li Chen at (909) 396-2426.

Sincerely,

*Michael D. Mills*

Michael D. Mills, P.E.  
Senior Manager  
General Commercial and Energy Permitting  
Engineering and Compliance

cc: Gerardo Rios, US EPA  
Ed Pupka, SCAQMD Compliance  
Energy Unit Files

*Clearing the air for a better future*



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
21865 Copley Drive, Diamond Bar, CA 91765

Title Page  
Facility I.D.#: 800327  
Revision #: 4  
Date: February 15, 2008

## FACILITY PERMIT TO OPERATE

**GLENDALE CITY, GLENDALE WATER & POWER  
800 AIR WAY  
GLENDALE, CA 91201**

### 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 Mike Mills for  
Carol Coy  
Deputy Executive Officer  
Engineering & Compliance



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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F	RECLAIM Monitoring and Source Testing Requirements	0	08/23/1999
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**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

**SECTION A: FACILITY INFORMATION**

LEGAL OWNER &/OR OPERATOR: GLENDALE CITY, GLENDALE WATER & POWER

LEGAL OPERATOR (if different than owner):

EQUIPMENT LOCATION: 800 AIR WAY  
GLENDALE, CA 91201

MAILING ADDRESS: 141 N. GLENDALE AVE  
GLENDALE, CA 91206

RESPONSIBLE OFFICIAL: IGNACIO R. TRONCOSO

TITLE: DIRECTOR, GLENDALE WATER & POWER

TELEPHONE NUMBER: (818) 548-2107

CONTACT PERSON: NED BASSIN

TITLE: POWER MANAGEMENT ADMINISTRATOR

TELEPHONE NUMBER: (818) 548-2748

TITLE V PERMIT ISSUED: August 23, 1999

TITLE V PERMIT EXPIRATION DATE: August 22, 2004

TITLE V	RECLAIM
YES	NOx: NO SOx: NO CYCLE: 0 ZONE: COASTAL



AQMD

## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

### 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 : EXTERNAL COMBUSTION</b>					
<b>System 1 : Grayson Unit No. 4</b>					
BOILER, GRAYSON UNIT NO. 4, FUEL OIL NO. 2, LANDFILL GAS, NATURAL GAS, RILEY STOKER, MODEL CLASS RX, 25-WW, WATERTUBE TYPE, 425,000 LBS PER HOUR, WITH LOW NOX BURNER, FLUE GAS RECIRCULATION, 492 MMBTU/HR WITH A/N: 293130  STEAM TURBINE  BURNER, FUEL OIL NO. 2, LANDFILL GAS, NATURAL GAS, AUS 5000, SIX BURNERS TOTAL, WITH LOW NOX BURNER, 492 MMBTU/HR, 6 TOTAL; 492 MMBTU/HR  GENERATOR, 44 MW	D1	C9		CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 1.14 lbs/net MWH NATURAL GAS (5) [RULE 1135,7-19-1991] ; NOX: 2.28 lbs/net MWH FUEL OIL 2 (5) [RULE 1135,7-19-1991]  NOX: 1.14 lbs/net MWH LANDFILL GAS (5) [RULE 1135,7-19-1991] ; 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 2 (5) [RULE 407,4-2-1982]	B61.2, B75.1, D82.1, D371.1, E71.2, E71.3, E204.2

- \* (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.



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<b>Process 1 : EXTERNAL COMBUSTION</b>					
<b>System 2 : Grayson Unit No. 3</b>					
BOILER, GRAYSON UNIT NO. 3, FUEL OIL NO. 2, LANDFILL GAS, NATURAL GAS, BABCOCK & WILCOX, MODEL FH26, WATERTUBE TYPE. 215,000 LBS PER HOUR, WITH LOW NOX BURNER, FLUE GAS RECIRCULATION, 260 MMBTU/HR WITH A/N: 293129  BURNER, FUEL OIL NO. 2, LANDFILL GAS, NATURAL GAS, AUS 5000, FOUR BURNERS TOTAL, WITH LOW NOX BURNER, 260 MMBTU/HR, 4 TOTAL; 260 MMBTU/HR  GENERATOR, 20 MW	D2			CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 0.64 lbs/net MWH NATURAL GAS (5) [RULE 1135,7-19-1991] ; NOX: 1.27 lbs/net MWH FUEL OIL 2 (5) [RULE 1135,7-19-1991]  NOX: 0.64 lbs/net MWH LANDFILL GAS (5) [RULE 1135,7-19-1991] ; 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 2 (5) [RULE 407,4-2-1982]	B61.2, B75.1, D82.1, D371.1, E71.2, E71.3, E204.1

- \* (1)(1A)(1B) Denotes RECLAIM emission factor
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- (9) See App B for Emission Limits
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 2 : INTERNAL COMBUSTION; ELECTRIC GENERATION</b>					
<b>System 1 : TURBINES</b>					
GAS TURBINE, GLENDALE 8A, FUEL OIL, NATURAL GAS, TURBO POWER & MARINE, MODEL FT4C3FLF, WITH STEAM OR WATER INJECTION, 350 MMBTU/HR WITH A/N: 370621  GENERATOR, 30 MW  BOILER, NO. 8-A, HEAT RECOVERY STEAM GENERATOR	D4	CS1		CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 9 PPMV (5) [RULE 1134,8-8-1997] ; PM: 0.05 GRAINS/SCF (5A) [RULE 475,10-8-1976  RULE 475,8-7-1978] ; PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] ; SOX: 500 PPMV FUEL OIL 2 (5) [RULE 407,4-2-1982]	B59.1, B75.1, C1.3, C1.4, C4.1, C4.2, C19.2, D12.2, D12.4, D28.4, D371.2, E51.1, E73.1, E73.2
GAS TURBINE, GLENDALE 8B, FUEL OIL, NATURAL GAS, TURBO POWER & MARINE, MODEL FT4C3FLF, WITH STEAM OR WATER INJECTION, 350 MMBTU/HR WITH A/N: 344955	D5	CS3		CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 9 PPMV (5) [RULE 1134,8-8-1997] ; PM: 0.05 GRAINS/SCF (5A) [RULE 475,10-8-1976  RULE 475,8-7-1978] ; PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] ; SOX: 500 PPMV FUEL OIL 2 (5) [RULE 407,4-2-1982]	B59.1, B75.1, C1.3, C1.4, C4.1, C4.2, C19.2, D12.2, D12.4, D28.4, D371.2, E51.1, E73.1, E73.2

\* (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

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 2 : INTERNAL COMBUSTION; ELECTRIC GENERATION</b>					
GENERATOR, COMMON TO GAS TURBINE GLENDALE 8C, 60 MW  BOILER, NO. 8-B/C, HEAT RECOVERY STEAM GENERATOR					
GAS TURBINE, GLENDALE 8C, FUEL OIL, NATURAL GAS, TURBO POWER & MARINE, MODEL FT4C3FLF, WITH STEAM OR WATER INJECTION, 350 MMBTU/HR WITH A/N: 344956  GENERATOR, COMMON TO GAS TURBINE GLENDALE 8B, 60 MW  BOILER, NO 8-B/C, HEAT RECOVERY STEAM GENERATOR	D6	C53		CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 9 PPMV (5) [RULE 1134,8-8-1997] ; PM: 0.05 GRAINS/SCF (5A) [RULE 475,10-8-1976  RULE 475,8-7-1978] ; PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] ; SOX: 500 PPMV FUEL OIL 2 (5) [RULE 407,4-2-1982]	B59.1, B75.1, C1.3, C1.4, C4.1, C4.2, C19.2, D12.2, D12.4, D28.4, D371.2, E51.1, E73.1, E73.2
CYCLONE, NO. 4, GREEN AERODYNE, TYPE C, SIZE 16-22 A/N: G00396	C9	D1			

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- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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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; ELECTRIC GENERATION</b>					
SELECTIVE CATALYTIC REDUCTION, 8 A, HALDOR TOPSOE DENOX CATALYST, APPLIED UTILITY SYSTEM, 44 TOTAL MODULES, 1000.5 CUB.FT. OF CATALYST VOLUME, WIDTH: 9 FT 6 IN; HEIGHT: 34 FT 10 IN; LENGTH: 6 FT 4 IN WITH A/N: 364302  AMMONIA INJECTION	C51	D4 C52		NH3: 5 PPMV (5) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]	
SELECTIVE CATALYTIC REDUCTION, 8 A, ENGELHARD SCR/CO CATALYST, 64 TOTAL MODULES, 162.6 CUB.FT. OF CATALYST VOLUME, WIDTH: 2 FT 0.75 IN; HEIGHT: 2 FT 4.375 IN; LENGTH: 6.7 IN A/N: 364302	C52	C51			
SELECTIVE CATALYTIC REDUCTION, 8 B/C, HALDOR TOPSOE DENOX CATALYST, APPLIED UTILITY SYSTEM, 88 TOTAL MODULES, 2001 CUB.FT. OF CATALYST VOLUME, WIDTH: 9 FT 6 IN; HEIGHT: 34 FT 10 IN; LENGTH: 6 FT 4 IN WITH A/N: 349715  AMMONIA INJECTION	C53	D5 D6 C54		NH3: 5 PPMV (5) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]	

- \* (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
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- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
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- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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<b>Process 2 : INTERNAL COMBUSTION; ELECTRIC GENERATION</b>					
SELECTIVE CATALYTIC REDUCTION, 8 B/C, ENGELHARD SCR/CO CATALYST, 128 TOTAL MODULES, 325.2 CUB. FT. OF CATALYST VOLUME, WIDTH: 2 FT 0.75 IN; HEIGHT: 2 FT 4.375 IN; LENGTH: 6.7 IN A/N: 349715	C54	C53			
STORAGE TANK, PRESSURIZED, AQUEOUS AMMONIA, 19%, WITH VAPOR RETURN LINE, 10000 GALS; DIAMETER: 10 FT; HEIGHT: 18 FT A/N: 370306	D57				
GAS TURBINE, #9, NATURAL GAS, GENERAL ELECTRIC, MODEL LM6000 SPRINT, WITH WATER INJECTION, 470 MMBTU/HR WITH A/N: 407834	D58	C60		CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; CO: 6 PPMV (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]  NOX: 108 PPMV NATURAL GAS (8A) [40CFR 60 Subpart GG,7-8-2004] ; NOX: 5 PPMV (4) [RULE 2005,5-6-2005] ; PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	A63.4, A99.4, A99.5, A195.4, A195.5, A195.6, A327.2, C1.7, C1.8, D29.4, D82.3, D82.4, E193.2, K40.3, K67.6

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<b>Process 2 : INTERNAL COMBUSTION; ELECTRIC GENERATION</b>					
GENERATOR, 49.6 MW				PM: 11 LBS/HR (5A) [RULE 475,10-8-1976;RULE 475,8-7-1978] ; PM: 0.01 GRAINS/SCF (5B) [RULE 475,10-8-1976;RULE 475,8-7-1978]  SO2: (8B) [40CFR 72 - Acid Rain Provisions,11-24-1997] ; SOX: 150 PPMV (8A) [40CFR 60 Subpart GG,7-8-2004] ; VOC: 2 PPMV (4) [RULE 1303(a)(1)-BACT,5-10-1996  RULE 1303(a)(1)-BACT,12-6-2002]	
CO OXIDATION CATALYST, DELTAK A/N: 407836	C60	D58 C61			
SELECTIVE CATALYTIC REDUCTION, DELTAK WITH AN ENGELHARD CATALYST, 1380 CU.FT.; WIDTH: 51 FT; HEIGHT: 11 FT; LENGTH: 3 FT WITH A/N: 407836  AMMONIA INJECTION, AMMONIA INJECTION GRID	C61	C60		NH3: 5 PPMV (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]	D12.7, D12.8, D29.5, E179.3, E179.4

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- (2)(2A)(2B) Denotes RECLAIM emission rate
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<b>Process 2 : INTERNAL COMBUSTION; ELECTRIC GENERATION</b>					
STORAGE TANK, AQUEOUS AMMONIA 19%, 12000 GALS; DIAMETER: 10 FT; LENGTH: 21 FT A/N: 407838	D63				
<b>System 2 : RECIPROCATING INTERNAL COMBUSTION ENGINES</b>					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, CUMMINS, MODEL NTA-855-G2, WITH AFTERCOOLER, TURBOCHARGER, 465 BHP WITH A/N: 229087  GENERATOR	D12			NOX: 5.62 LBS/HR FUEL OIL 2 (4) [RULE 1303(b)(2)-Offset,5- 10-1996] ; PM: (9) [RULE 404,2-7-1986] ; ROG: 0.022 LBS/HR FUEL OIL 2 (4) [RULE 1303(b)(2)-Offset,5-10- 1996]	B59.2, C1.1, C1.2, C177.1, D12.1, K67.1
<b>Process 4 : SPRAY COATINGS</b>					
SPRAY COATING OPERATION, FLOOR FILTER TYPE, WITH A 1 HP EXHAUST FAN, WITH SRAY BOOTH, HEIGHT: 10 FT; LENGTH: 12 FT; WIDTH: 10 FT A/N: G01826	D21			PM: (9) [RULE 404,2-7-1986] ; ROG: (9) [RULE 1107,11-9- 2001;RULE 1107,1-6-2006;RULE 1171,11-7-2003;RULE 1171,7-14- 2006]	A63.1, C6.1, D12.3, D322.1, H23.7, K67.3
<b>Process 6 : R-219 EXEMPT EQUIPMENT SUBJECT TO SOURCE SPECIFIC RULES</b>					
RULE 219 EXEMPT EQUIPMENT, CLEANING EQUIPMENT, SMALL, UNHEATED, NON-CONVEYORIZED	E28			ROG: (9) [RULE 1171,11-7- 2003;RULE 1171,7-14-2006]	H23.5

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<b>Process 6 : R-219 EXEMPT EQUIPMENT SUBJECT TO SOURCE SPECIFIC RULES</b>					
RULE 219 EXEMPT EQUIPMENT, ABRASIVE BLASTING EQUIPMENT, GLOVE-BOX, <= 53 FT3, WITH DUST FILTER	E29			PM: (9) [RULE 1140,2-1-1980;RULE 1140,8-2-1985;RULE 404,2-7-1986;RULE 405,2-7-1986]	D322.2, D381.1, K67.2
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E30			ROG: (9) [RULE 1113,12-5-2003;RULE 1113,6-9-2006;RULE 1171,11-7-2003;RULE 1171,7-14-2006]	K67.4
RULE 219 EXEMPT EQUIPMENT, AIR CONDITIONING UNITS	E31				H23.3
RULE 219 EXEMPT EQUIPMENT, REFRIGERANT RECOVERY AND/OR RECYCLING UNITS,	E32				H23.4
RULE 219 EXEMPT EQUIPMENT, COOLING TOWERS	E33				H23.6

\* (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.



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
21865 Copley Drive, Diamond Bar, CA 91765

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Revision #:	2
Date:	February 15, 2008

**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

**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.**



**AQMD**  
AIR QUALITY MANAGEMENT DISTRICT

**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

**SECTION D: DEVICE ID INDEX**

Device Index For Section D			
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## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

### 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, 9-11-1998]**

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

purchase records of fuel oil and sulfur content of the fuel

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

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

Device ID	Boiler ID	Contaminant	Tons in any year
1	Grayson Unit No. 4	SO2	101
3	Grayson Unit No. 5	SO2	36

- a). The allowance allocation(s) shall apply to calendar years 2000 through 2009.
- b). The number of allowances allocated to Phase II affected units by U.S. EPA may change in a 1998 revision to 40CFR73 Tables 2,3, and 4. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO2 allowance allocations identified in this permit (see 40 CFR 72.84)

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



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

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

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

- a). The operator shall comply with the accidental release prevention requirements pursuant to 40 CFR Part 68 and shall submit to the Executive Officer, as a part of an annual compliance certification, a statement that certifies compliance with all of the requirements of 40 CFR Part 68, including the registration and submission of a risk management plan (RMP).
- b). The operator shall submit any additional relevant information requested by the Executive Officer or designated agency.

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

**DEVICE CONDITIONS**

**A. Emission Limits**

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

CONTAMINANT	EMISSIONS LIMIT
ROG	Less than or equal to 40 LBS IN ANY ONE DAY

For the purposes of this condition, the limit(s) shall be based on the total combined emissions from the use of photochemically reactive organic solvents unless such discharge is controlled so as to comply with Rule 66.

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

[Devices subject to this condition : D21]



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

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

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 10559 LBS IN ANY ONE MONTH
CO	Less than 9741 LBS IN ANY ONE MONTH
ROG	Less than 799 LBS IN ANY ONE MONTH
SOX	Less than 619 LBS IN ANY ONE MONTH
PM10	Less than 2542 LBS IN ANY ONE MONTH

The operator shall calculate the emission limit(s) during normal operations by using monthly fuel usage data and the following emission factors: NOx: 25.13 lbs/MMSCF, CO: 17.17 lbs/MMSCF, PM10: 8.51 lbs/MMSCF, ROG: 2.67 lbs/MMSCF, SOx: 2.07 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.

The operator shall calculate the emission limit(s) for NOx, after the NOx CEMS certification, based on readings from the certified CEMS. In the event the NOx 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 : D58]

A99.4 The 5.0 PPM NOX emission limit(s) shall not apply during turbine startup and shutdown periods. Written records of 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 : D58]



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

### 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 startup and shutdown periods. Written records of 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 : D58]

A195.4 The 5.0 PPMV NOX emission limit(s) is averaged over 1 hour at 15 percent oxygen, dry basis, rolling average.

The average shall be calculated based on emissions during all turbine 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 450 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 450 F.

Startups are not to exceed one hour per occurrence..

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

[Devices subject to this condition : D58]

A195.5 The 6.0 PPMV CO emission limit(s) is averaged over 1 hour at 15 percent oxygen, dry basis, rolling average.

The average shall be calculated based on emissions during all turbine operating hours except startups defined as whenever the unit is being brought up to normal operating temperature from an inactive status, and shutdowns defined as whenever the unit is allowed to cool from a normal operating temperature to inactive status.

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

[Devices subject to this condition : D58]

A195.6 The 2.0 PPMV ROG 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 : D58]



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

A327.2 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 : D58]

#### B. Material/Fuel Type Limits

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

Natural gas or fuel oil no. 2 or a lighter grade as determined by ASTM Standard D 396-86 or later specification

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

[Devices subject to this condition : D4, D5, D6]

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

Fuel oil no. 2 or lighter grade with a sulfur content of not more than 15 ppm by weight

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

[Devices subject to this condition : D12]



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

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

B61.2 The operator shall not use landfill gas containing the following specified compounds:

Compound	ppm by volume
Sulfur compounds calculated as H2S greater than	150

The 150 ppmv SOx emission limit is averaged over 24 hours

**[RULE 431.1, 6-12-1998]**

[Devices subject to this condition : D1, D2, D3]

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

Natural gas curtailment

Emergency

**[H&S 44300, 7-1-1988]**

[Devices subject to this condition : D1, D2, D3, D4, D5, D6]

**C. Throughput or Operating Parameter Limits**

C1.1 The operator shall limit the operating time to no more than 20.2 hour(s) in any one day.

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

[Devices subject to this condition : D12]



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

C1.2 The operator shall limit the operating time to no more than 125 hour(s) in any one year.

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

[Devices subject to this condition : D12]

C1.3 The operator shall limit the natural gas fuel usage to no more than 8.6 MM cubic feet per day.

This limit shall be based on the total combined limit for equipment described as turbines 8A, 8B and 8C.

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

[Devices subject to this condition : D4, D5, D6]

C1.4 The operator shall limit the fuel oil usage to no more than 72100 gallon(s) per day.

This limit shall be based on the total combined limit for equipment described as gas turbines 8A, 8B, and 8C.

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

[Devices subject to this condition : D4, D5, D6]

C1.7 The operator shall limit the number of start-ups to no more than 730 in any one year.

Startup time shall not exceed 1 hour per startup.

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

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

[Devices subject to this condition : D58]



AQMD

## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

- C1.8 The operator shall limit the number of shut-downs to no more than 730 in any one year.

Shutdown time shall not exceed 8 minutes per shutdown.

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

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

[Devices subject to this condition : D58]

- C4.1 The operator shall limit the load to no less than 14 MW.

For the purpose of this condition, load shall be defined as gross megawatts of power generated.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1401, 3-4-2005; RULE 401, 3-2-1984]

[Devices subject to this condition : D4, D5, D6]

- C4.2 The operator shall limit the load to no less than 20 MW.

For the purpose of this condition, load shall be defined as the electricity generated for each of units 8A, 8B, and 8C. This applies only during periods of fuel oil firing.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1401, 3-4-2005; RULE 401, 3-2-1984]

[Devices subject to this condition : D4, D5, D6]



**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

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

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

- C6.1 The operator shall use this equipment in such a manner that the differential pressure being monitored, as indicated below, does not exceed 0.25 inches water column.

To comply with this condition, the operator shall monitor the differential pressure as specified in condition number 12-3.

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

[Devices subject to this condition : D21]

- C19.2 The operator shall maintain water/fuel ratio (natural gas firing) and water/fuel ratio (fuel oil firing) in accordance with the following relationship:

water/fuel ratio (natural gas firing)	(fraction)	water/fuel ratio (fuel oil firing)	(fraction)
Equal to	0.28:1.00; +/- 0.02:1.00	Equal to	0.56:1.00 +/- 0.03:1.00

**[RULE 1134, 8-8-1997; RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : D4, D5, D6]

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

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

[Devices subject to this condition : D12]

**D. Monitoring/Testing Requirements**



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

- D12.1 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

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

[Devices subject to this condition : D12]

- D12.2 The operator shall install and maintain a(n) non-resettable totalizing fuel meter to accurately indicate the fuel usage of the gas turbines 8A, 8B, and 8C.

Each device is required to have a dedicated fuel meter for natural and a dedicated fuel meter for No. 2 fuel oil.

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

[Devices subject to this condition : D4, D5, D6]

- D12.3 The operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the filter media.

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

[Devices subject to this condition : D21]

- 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 1134, 8-8-1997]

[Devices subject to this condition : D4, D5, D6]



AQMD

## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

- D12.7 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the exhaust at the inlet to the SCR reactor..

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

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

The nominal temperature range is between 250 degrees F to 871 degrees F. The facility shall take corrective actions when the pressure drop is outside the nominal range.

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

[Devices subject to this condition : C61]

- D12.8 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches water column..

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

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

The nominal pressure drop range is between 3.0 to 8.6 inches water column. The facility shall take corrective actions when the pressure drop is outside the nominal range.

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

[Devices subject to this condition : C61]



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

D28.4 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted only if the equipment is fired on fuel oil during the life of the permit.

The test shall be conducted at least once during the life of the permit.

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

Source test shall be conducted when this equipment is using fuel oil.

The test shall be conducted to demonstrate compliance with Rule 475.

The test shall be conducted to determine the PM emissions using District method 5.1.

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

[Devices subject to this condition : D4, D5, D6]



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

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

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

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
CO emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
NOX emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
SOX emissions	Approved District method	District-approved averaging time	Fuel Sample
ROG emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment

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.

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 is demonstrated by the following test method: a) Stack gas samples are extracted into Summa canisters, maintaining a final pressure between 400 - 500 mm Hg absolute, b) Pressurization of Summa canisters is done with zero gas analyzed/certified to 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 when extracting samples for analysis is not to be 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 prior approval, except for the determination of compliance with the VOC BACT level of 2.0 ppmv for natural gas fired turbines. Because the BACT level was set using data derived from various source test methods, this method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time



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

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

[Devices subject to this condition : D58]

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

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

The test shall be conducted and the results submitted to the District within 60 days after the test date. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted once per calendar quarter during the first twelve months of operation and annually thereafter. The NOx concentration, as determined by the certified CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable or not yet certified, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60-minute averaging time period.

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

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

[Devices subject to this condition : C61]

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

The CEMS shall be installed and continuously operated. In the event that the CEMS breaks down or is off-line, the uncontrolled load curve that was specified for the associated boiler in the Rule 1135 compliance plan shall be used to determine the emission rates. The uncontrolled load curve shall be used for breakdown scenarios until Glendale submits a new controlled load curve as outlined in section 2.8 of the document titled "continuous emission monitoring systems requirements for utility boilers"

[RULE 1135, 7-19-1991; RULE 218, 8-7-1981; RULE 218, 5-14-1999]

[Devices subject to this condition : D1, D2]



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

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

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

CO concentration in ppmv

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

The CEMS 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 concentrations over a 15 minute averaging time period.

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

CO Emission Rate, lbs/hr =  $K * C_{co} * F_d * [20.9 / (20.9 - \%O_{2d})] * [Q_g * HHV]$ , where:

$K = 7.267 * 10^{-2}$ ,  $C_{co}$  = Average of four consecutive 15-min. average CO concentration in ppmv,  $F_d = 8710$  dscf/MMBtu natural gas,  $\%O_{2d}$  = Hourly average percentage by volume O2 dry, corresponding to  $C_{co}$ ,  $Q_g$  = Fuel gas usage during the hour, scf/hr, HHV = Higher Heating Value of fuel gas, Btu/scf.

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

[Devices subject to this condition : D58]



**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

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

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

D82.4 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 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 NOx concentrations over a 15 minute averaging time period.

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

NOx Emission Rate, lbs/hr =  $K \cdot C_n \cdot F_d \cdot [20.9 / (20.9 - \%O_{2d})] \cdot [Q_g \cdot HHV]$ , where:

$K = 1.195 \cdot 10^{-1}$ ,  $C_n$  = Average of four consecutive 15-min. average NOx concentration in ppmv,  $F_d = 8710$  dscf/MMBtu natural gas,  $\%O_{2d}$  = Hourly average percentage by volume O2 dry, corresponding to  $C_n$ ,  $Q_g$  = Fuel gas usage during the hour, scf/hr, HHV = Higher Heating Value of fuel gas, Btu/scf

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

[Devices subject to this condition : D58]

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

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

[Devices subject to this condition : D21]

D322.2 The operator shall perform annual inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

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

[Devices subject to this condition : E29]



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

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

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

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

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

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

[Devices subject to this condition : D1, D2, D3]



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

### 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 on an annual basis whenever this equipment is fired on fuel oil for training/testing purposes; and after every 400 cumulative hours of operation on diesel fuel or after every two million gallons of diesel fuel combusted, to be counted cumulatively over a five year period. The inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall:

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

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

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

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

[Devices subject to this condition : D4, D5, D6]



## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

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

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

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

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

[Devices subject to this condition : E29]

### E. Equipment Operation/Construction Requirements

E51.1 The following condition number(s) shall not apply if all of the requirements stated below are met:

Condition number 4-1

Requirement number 1: During start-up and shutdown periods, which shall not exceed 1 hour for unit 8A and 1.5 hours for units 8B and 8C

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 429, 12-21-1990]

[Devices subject to this condition : D4, D5, D6]



**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

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

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

- E71.2 The operator shall only utilize this equipment if the city of Glendale complies with all requirements of rule 431.1 and shall conduct or cause to be conducted, weekly tests using District method 307-91, of the scrubbed landfill gas that is delivered from Scholl canyon landfill to Grayson power plant.

**[RULE 431.1, 6-12-1998]**

[Devices subject to this condition : D1, D2]

- E71.3 The operator shall only utilize this equipment if the City of Glendale can maintain, or cause to be maintained, at Grayson Power Plant, on a weekly basis, the monitoring results of the scrubbed landfill gas that is delivered from Scholl Canyon Landfill to Grayson Power Plant.

**[RULE 431.1, 6-12-1998]**

[Devices subject to this condition : D1, D2]

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

On days that natural gas is fired in gas turbine units 8A, 8B, or 8C, except on days of maintenance testing

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

[Devices subject to this condition : D4, D5, D6]

- E73.2 Notwithstanding the requirements of Section E conditions, the operator shall not use natural gas in this equipment if all of the following requirement(s) are met:

On days that fuel oil is fired in gas turbines 8A, 8B, or 8C, except during maintenance testing

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

[Devices subject to this condition : D4, D5, D6]



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## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

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 based 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]

[Devices subject to this condition : C61]

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- 8

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

[Devices subject to this condition : C61]

E193.2 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

Conditions contained in the City of Glendale CEQA document, State Clearinghouse #2003011128

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D58]



**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

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

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

E204.1 The operator shall conduct a boiler lancing according to the following specifications:

During periods of No. 2 fuel oil firing, the heat transfer surface shall be steam lanced at least every 24 hours

During any 60-minute period, a lancing operation shall be limited to either the air heater and rotary lances G, H and I, or traversing lances IK1 through IK4

At least 60 minutes shall separate each lancing operation

[Devices subject to this condition : D2]

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

During periods of No. 2 fuel oil firing, the heat transfer surface shall be steam lanced at least every 24 hours

[Devices subject to this condition : D1]

**H. Applicable Rules**

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

Contaminant	Rule	Rule/Subpart
Refrigerants	District Rule	1415
Refrigerants	40CFR82, SUBPART	F

[RULE 1415, 10-14-1994; 40CFR 82 Subpart F, 5-14-1993]

[Devices subject to this condition : E31]



**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

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

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

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

Contaminant	Rule	Rule/Subpart
Refrigerants	40CFR82, SUBPART	B

**[40CFR 82 Subpart B, 7-14-1992]**

[Devices subject to this condition : E32]

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

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1122

**[RULE 1122, 7-11-1997]**

[Devices subject to this condition : E28]

H23.6 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 : E33]



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**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

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

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

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

Contaminant	Rule	Rule/Subpart
VOC	District Rule	109
PM	District Rule	481

[RULE 109, 3-6-1992; RULE 481, 5-5-1978]

[Devices subject to this condition : D21]

**K. Record Keeping/Reporting**

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

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]

[Devices subject to this condition : D58]



**FACILITY PERMIT TO OPERATE  
GLENDALE CITY, GLENDALE WATER & POWER**

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

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

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

The records shall include, at a minimum, the hours and days of operation and the quantity of fuel used. The operating record shall be kept for minimum of two years and made available upon request of District personnel.

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

[Devices subject to this condition : D12]

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

The name of the person performing the inspection and/or maintenance of the filter media

The date, time, and results of the inspection

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

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

[Devices subject to this condition : E29]

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

The name of the person performing the inspection and/or maintenance of the filter media

The date, time, and results of the inspection

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

Weekly record of pressure drop across the filter media

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

[Devices subject to this condition : D21]



**AQMD**  
AIR QUALITY MANAGEMENT DISTRICT

## FACILITY PERMIT TO OPERATE GLENDALE CITY, GLENDALE WATER & POWER

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

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

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, 8-11-1995]**

[Devices subject to this condition : E30]

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

A gas turbine operating log that, on a daily basis, the actual Pacific Standard Time start-up and stop time, total hours of operation; quantity of fuel, cumulative hours of operation to date for the calendar year.

All records shall be maintained at the facility for a period of two years and made available to District staff upon request

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

[Devices subject to this condition : D58]