South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

DOCKET
07-AFC-3
DATE 03/02/10
RECD. 03/04/10

March 2, 2010

Mr. John Kessler, Project Manager
California Energy Commission
1516 9th Street
Sacramento, CA 95814-5512

Subject: Addendum to the Determination of Compliance (DOC) for CPV Sentinel's (CPV) Proposed 850 Megawatt Power Plant Project (Facility ID No. 152707), to be located at 62575 Power Line Rd, Desert Hot Springs, CA 92440; (07-AFC-3)

Dear Mr. Kessler:

This is in reference to the CPV Sentinel, LLC (CPV) proposed Power Plant Project Application for Certification (AFC) and the Title V Application for a Permit to Construct filed with the California Energy Commission (CEC) and the South Coast Air Quality Management District (AQMD), respectively. CPV has proposed to construct an 850 megawatt (MW) power plant, located at 62575 Power Line Road, Desert Hot Springs, CA 92440. As you know, AQMD prepared and issued a Preliminary Determination of Compliance (PDOC) and a Final Determination of Compliance (FDOC) for CPV on May 7, 2008 and August 29, 2009 respectively. In the FDOC, AQMD indicated that CPV complied with all applicable air quality rules and regulations except that it had not yet established how it would meet the emissions offset requirements.

Since then CPV has provided additional information regarding the project operations and emission offsets, CPV will provide RECLAIM trading credits (RTCs) and emissions reductions credits (ERCs) acquired in the open market to offset Oxides of Nitrogen (NOx) and Volatile Organic Compound (VOC) emissions, respectively. Emission increases of Particulate Matter <10 microns (PM10) and Oxides of Sulfur (SOx) from the project will be offset from AQMD's internal offset accounts as provided in AB1318-Perez, pursuant to California Health & Safety Code 40440.14.

At this time AQMD has completed its review of the additional information regarding project operations and offsets submitted by CPV and prepared an Addendum to the Determination of Compliance (DOC) relative to the PDOC (dated May 7, 2008) and FDOC (dated August 29, 2009). Based on our review of the additional information provided by CPV, AQMD has determined that the CPV Project complies with all applicable requirements of the local, state and federal air quality Rules and Regulations. Enclosed please find a copy of the Addendum to the DOC Analysis and the draft Title V Facility Permit to Construct for the CPV project.

PROOF OF SERVICE (REVISED 2/16/10) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 3/4/10
MS

Also please note that the AQMD will submit the CPV offset evaluation for PM10 and SOx, which is provided to CEC under this Addendum to DOC, pursuant to AB1318 (Health & Safety Code Section 40440.14 (c)), along with the AB1318 Tracking System, to the U.S. Environmental Protection Agency (EPA) for approval and inclusion into the State Implementation Plan (SIP). The transfer of PM10 and SOx offset to CPV from AQMD's internal offset account tracking system pursuant to AB1318 is contingent on AQMD's receipt of payment of the mitigation fees set forth in AQMD's Rule 1309.1 as amended on August 3, 2007, pursuant to Health & Safety Code Section 40440.14(e).

If you have any questions regarding the offset evaluation, please contact me at 909.396.2662 mnazemi1@aqmd.gov , or Mr. Kurt Wiese, General Counsel at 909.396.3460 kwiese@aqmd.gov.

For any other questions regarding this Addendum to DOC, please contact Mr. Michael D. Mills, Senior Manager at 909.396.2578 mmills@aqmd.gov or Mr. John Yee at 909.396.2531 jyee@aqmd.gov.

Sincerely,

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

MN:am
cc: Mark Tuner, CPV Sentinel, LLC
Mike Carroll, Latham & Watkins, LLP
Melissa Jones, CEC (w/o enclosures)
Terry O'Brien, CEC (w/o enclosures)
Eileen Allen, CEC (w/o enclosures)
Barry Wallerstein, AQMD (w/o enclosures)
Kurt Wiese, AQMD (w/o enclosures)
Barbara Baird, AQMD (w/o enclosures)
Mike Mills, AQMD (w/o enclosures)

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGES 52	PAGE 1
ENGINEERING AND COMPLIANCE DIVISION	APPLICATION NO. Master File	DATE 02-28-2010
ENGINEERING ANALYSIS / EVALUATION	PROCESSED BY: Roy Olivares	REVIEWED BY:

CPV SENTINEL, LLC; ADDENDUM TO THE DETERMINATION OF COMPLIANCE (DOC) ENGINEERING ANALYSIS FOR A NEW 850 MW SIMPLE CYCLE POWER PLANT

COMPANY NAME AND ADDRESS

CPV Sentinel , LLC
55 Second Street
Suite 525
San Francisco, CA 94105
Contact: Mr. Mark Turner
AQMD Facility ID: 152707

EQUIPMENT LOCATION

62575 Power Line Rd.
Desert Hot Springs, CA 92440

EQUIPMENT DESCRIPTION

Section H of the Facility Permit

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES, POWER GENERATION					
GAS TURBINE, CTG 1, NATURAL GAS, GENERAL ELECTRIC MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F WITH WATER INJECTION, WITH A/N 472139 GENERATOR, 103 MW	D1	C3	NOX: MAJOR SOURCE	**CO: 4**.0 PPMV NATURAL GAS (4) [Rule 1703 (a)(2)-BACT]; **CO:** 2000 PPMV (5) [Rule 407] **NOX:** 15 PPMV NATURAL GAS (8) [40CFR60 Subpart KKKK];**NOX:** 19 LB/MMCF (1) [Rule 2012] **NOX** 12.26 LB/MMCF NATURAL GAS (1)[Rule 2012] **NOX** 2.5 PPMV NATURAL GAS (4)[Rule 2005-BACT, Rule 1703 (a)(2)-BACT] **VOC:** 2.0 PPMV (4)[Rule 1303(a)(1)-BACT] **PM10**: 0.01 GRAIN/DSCF (5A) [Rule 475]; **PM10**: 0.1 GRAIN/DSCF (5) [Rule 409]; **PM10**: 11 LB/HR (5B) [Rule 475] **SOX**: .06 lb/MMBTU (8) [40 CFR60 Subpart KKKK]; **SO2**: (9) Acid Rain Provisions	A63.1, A63.2 A99.1, A99.3, A99.5, A99.7, A99.9 A195.1, A195.2, A195.3, A327.1, A443.1, B61.1, C1.1,C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

EQUIPMENT DESCRIPTION (continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES POWER GENERATION					
CO OXIDATION CATALYST NO. 1, BASF, 150 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 472140	C3	D1 C4			
SELECTIVE CATALYTIC REDUCTION NO. 1, CORMETECH CHMT-2, WITH 812 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH 11 FT 1 IN; WIDTH: 2 FT 2 IN; HEIGHT 4 FT 2 IN; WITH NH3 INJECTION GRID A/N: 472140	C4	S6 C3		**NH3:** 5.0 PPMV (4) [Rule 1303(a)(1)-BACT]	A195.4 D12.2 D12.3 D12.4 E179.1 E179.2,E193.1, E193.3
STACK NO. 1, DIAMETER: 13 FT 6 IN, HEIGHT: 90 FT A/N: 472140	S6	C4			
GAS TURBINE, CTG 2, NATURAL GAS, GENERAL ELECTRIC MODEL LMS100PA, SIMPLE CYCLE, 861.7 MMBTU/HR AT 72 DEGREES F WITH WATER INJECTION, WITH A/N 472141 GENERATOR, 103 MW	D7	C9	NOX: MAJOR SOURCE	**CO: 4**.0 PPMV NATURAL GAS (4) [Rule 1703 (a)(2)-BACT]; **CO:** 2000 PPMV (5) [Rule 407] **NOX:** 15 PPMV NATURAL GAS (8) [40CFR60 Subpart KKKK];**NOX:** 19 LB/MMCF (1) [Rule 2012] **NOX** 12.26 LB/MMCF NATURAL GAS (1)[Rule 2012] **NOX** 2.5 PPMV NATURAL GAS (4)[Rule 2005-BACT, Rule 1703 (a)(2)-BACT] **VOC:** 2.0 PPMV (4)[Rule 1303(a)(1)-BACT] **PM10**: 0.01 GRAIN/DSCF (5A) [Rule 475]; **PM10**: 0.1 GRAIN/DSCF (5) [Rule 409]; **PM10**: 11 LB/HR (5B) [Rule 475 **SOX**: .06 lb/MMBTU (8) [40 CFR60 Subpart KKKK]; **SO2**: (9) Acid Rain Provisions	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9 A195.1, A195.2, A195.3, A327.1, A443.1, B61.1, C1.1,C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

EQUIPMENT DESCRIPTION (continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES POWER GENERATION					
CO OXIDATION CATALYST NO. 2, BASF, 150 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 472142	C9	D7 C10			
SELECTIVE CATALYTIC REDUCTION NO. 2, CORMETECH CHMT-2, WITH 812 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH 11 FT 1 IN; WIDTH: 2 FT 2 IN; HEIGHT 4 FT 2 IN;; WITH NH3 INJECTION GRID A/N: 472142	C10	S12 C9		**NH3:** 5.0 PPMV (4) [Rule 1303(a)(1)-BACT]	A195.4 D12.2 D12.3 D12.4 E179.1 E179.2,E193.1, E193.3
STACK NO. 2, DIAMETER: 13 FT 6 IN, HEIGHT: 90 FT A/N: 472142	S12	C10			
GAS TURBINE, CTG. 3, NATURAL GAS, GENERAL ELECTRIC MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F WITH WATER INJECTION, WITH A/N 472143 GENERATOR, 103 MW	D13	C14	NOX: MAJOR SOURCE	**CO: 4**.0 PPMV NATURAL GAS (4) [Rule 1703 (a)(2)-BACT]; **CO:** 2000 PPMV (5) [Rule 407] **NOX:** 15 PPMV NATURAL GAS (8) [40CFR60 Subpart KKKK];**NOX:** 19 LB/MMCF (1) [Rule 2012] **NOX** 12.26 LB/MMCF NATURAL GAS (1)[Rule 2012] **NOX** 2.5 PPMV NATURAL GAS (4)[Rule 2005-BACT, Rule 1703 (a)(2)-BACT] **VOC:** 2.0 PPMV (4)[Rule 1303(a)(1)-BACT] **PM10**: 0.01 GRAIN/DSCF (5A) [Rule 475]; **PM10**: 0.1 GRAIN/DSCF (5) [Rule 409]; **PM10**: 11 LB/HR (5B) [Rule 475] **SOX**: .06 lb/MMBTU (8) [40 CFR60 Subpart KKKK]; **SO2**: (9) Acid Rain Provisions	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9 A195.1, A195.2, A195.3, A327.1, A443.1, B61.1, C1.1,C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

Equipment Description (Continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES POWER GENERATION					
CO OXIDATION CATALYST NO. 3, BASF, 150 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 472145	C15	D13 C16			
SELECTIVE CATALYTIC REDUCTION NO. 3, C CORMETECH CHMT-2, WITH 812 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH 11 FT 1 IN; WIDTH: 2 FT 2 IN; HEIGHT 4 FT 2 IN; WITH NH3 INJECTION GRID A/N: 472145	C16	S18 C15		**NH3:** 5.0 PPMV (4) [Rule 1303(a)(1)-BACT]	A195.4 D12.2 D12.3 D12.4 E179.1 E179.2,E193.1, E193.3
STACK NO. 3, DIAMETER: 13 FT 6 IN, HEIGHT: 90 FT A/N: 472145	S18	C16			
GAS TURBINE, CTG 4, NATURAL GAS, GENERAL ELECTRIC MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION, WITH A/N 472147 GENERATOR, 103 MW	D19	C21	NOX: MAJOR SOURCE	**CO: 4**.0 PPMV NATURAL GAS (4) [Rule 1703 (a)(2)-BACT]; **CO:** 2000 PPMV (5) [Rule 407] **NOX:** 15 PPMV NATURAL GAS (8) [40CFR60 Subpart KKKK];**NOX:** 19 LB/MMCF (1) [Rule 2012] **NOX** 12.26 LB/MMCF NATURAL GAS (1)[Rule 2012] **NOX** 2.5 PPMV NATURAL GAS (4)[Rule 2005-BACT, Rule 1703 (a)(2)-BACT] **VOC:** 2.0 PPMV (4)[Rule 1303(a)(1)-BACT] **PM10**: 0.01 GRAIN/DSCF (5A) [Rule 475]; **PM10**: 0.1 GRAIN/DSCF (5) [Rule 409]; **PM10**: 11 LB/HR (5B) [Rule 475] **SOX**: .06 lb/MMBTU (8) [40 CFR60 Subpart KKKK]; **SO2**: (9) Acid Rain Provisions	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9 A195.1, A195.2, A195.3, A327.1, A443.1, B61.1, C1.1,C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

Equipment Description (Continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES POWER GENERATION					
CO OXIDATION CATALYST NO. 4, BASF, 150 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 472149	C21	D19 C22			
SELECTIVE CATALYTIC REDUCTION NO. 4, CORMETECH CHMT-2, WITH 812 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH 11 FT 1 IN; WIDTH: 2 FT 2 IN; HEIGHT 4 FT 2 IN; WITH NH3 INJECTION GRID A/N: 472149	C22	S24 C21		**NH3:** 5.0 PPMV (4) [Rule 1303(a)(1)-BACT]	A195.4 D12.2 D12.3 D12.4 E179.1 E179.2,E193.1, E193.3
STACK NO. 4, DIAMETER: 13 FT 6 IN, HEIGHT: 90 FT A/N: 472149	S24	C22			
GAS TURBINE, CTG. 5, NATURAL GAS, GENERAL ELECTRIC MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F WITH WATER INJECTION, WITH A/N 472150 GENERATOR, 103 MW	D25	C27	NOX: MAJOR SOURCE	**CO: 4**.0 PPMV NATURAL GAS (4) [Rule 1703 (a)(2)-BACT]; **CO:** 2000 PPMV (5) [Rule 407] **NOX:** 15 PPMV NATURAL GAS (8) [40CFR60 Subpart KKKK];**NOX:** 19 LB/MMCF (1) [Rule 2012] **NOX** 12.26 LB/MMCF NATURAL GAS (1)[Rule 2012] **NOX** 2.5 PPMV NATURAL GAS (4)[Rule 2005-BACT, Rule 1703 (a)(2)-BACT] **VOC:** 2.0 PPMV (4)[Rule 1303(a)(1)-BACT] **PM10**: 0.01 GRAIN/DSCF (5A) [Rule 475]; **PM10**: 0.1 GRAIN/DSCF (5) [Rule 409]; **PM10**: 11 LB/HR (5B) [Rule 475] **SOX**: .06 lb/MMBTU (8) [40 CFR60 Subpart KKKK]; **SO2**: (9) Acid Rain Provisions	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9 A195.1, A195.2, A195.3, A327.1, A443.1, B61.1, C1.1,C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

Equipment Description (Continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES, POWER GENERATION					
CO OXIDATION CATALYST NO. 5, BASF, 150 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 472153	C27	D25 C28			
SELECTIVE CATALYTIC REDUCTION NO. 5, CORMETECH CHMT-2, WITH 812 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH 11 FT 1 IN; WIDTH: 2 FT 2 IN; HEIGHT 4 FT 2 IN; WITH NH3 INJECTION GRID A/N: 472153	C28	S30 C27		**NH3:** 5.0 PPMV (4) [Rule 1303(a)(1)-BACT]	A195.4 D12.2 D12.3 D12.4 E179.1 E179.2,E193.1, E193.3
STACK NO. 5, DIAMETER: 13 FT 6 IN, HEIGHT: 90 FT A/N: 472153	S30	C28			
GAS TURBINE, CTG. 6, NATURAL GAS, GENERAL ELECTRIC MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F WITH WATER INJECTION, WITH A/N 472154 GENERATOR, 103 MW	D31	C33	NOX: MAJOR SOURCE	**CO: 4**.0 PPMV NATURAL GAS (4) [Rule 1703 (a)(2)-BACT]; **CO:** 2000 PPMV (5) [Rule 407] **NOX:** 15 PPMV NATURAL GAS (8) [40CFR60 Subpart KKKK];**NOX:** 19 LB/MMCF (1) [Rule 2012] **NOX** 12.26 LB/MMCF NATURAL GAS (1)[Rule 2012] **NOX** 2.5 PPMV NATURAL GAS (4)[Rule 2005-BACT, Rule 1703 (a)(2)-BACT] **VOC:** 2.0 PPMV (4)[Rule 1303(a)(1)-BACT] **PM10**: 0.01 GRAIN/DSCF (5A) [Rule 475]; **PM10**: 0.1 GRAIN/DSCF (5) [Rule 409]; **PM10**: 11 LB/HR (5B) [Rule 475] **SOX**: .06 lb/MMBTU (8) [40 CFR60 Subpart KKKK]; **SO2**: (9) Acid Rain Provisions	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9 A195.1, A195.2, A195.3, A327.1, A443.1, B61.1, C1.1,C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

Equipment Description (Continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES, POWER GENERATION					
CO OXIDATION CATALYST NO. 6, BASF, 150 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 472155	C33	D31 C21			
SELECTIVE CATALYTIC REDUCTION NO. 6, CORMETECH CHMT-2, WITH 812 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH 11 FT 1 IN; WIDTH: 2 FT 2 IN; HEIGHT 4 FT 2 IN;; WITH NH3 INJECTION GRID A/N: 472155	C34	S36 C33		**NH3:** 5.0 PPMV (4) [Rule 1303(a)(1)-BACT]	A195.4 D12.2 D12.3 D12.4 E179.1 E179.2,E193.1, E193.3
STACK NO. 6, DIAMETER: 13 FT 6 IN, HEIGHT: 90 FT A/N: 472155	S36	C34			
GAS TURBINE, CTG. 7, NATURAL GAS, GENERAL ELECTRIC MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F WITH WATER INJECTION, WITH A/N 472156 GENERATOR, 103 MW	D37	C39	NOX: MAJOR SOURCE	**CO: 4**.0 PPMV NATURAL GAS (4) [Rule 1703 (a)(2)-BACT]; **CO:** 2000 PPMV (5) [Rule 407] **NOX:** 15 PPMV NATURAL GAS (8) [40CFR60 Subpart KKKK];**NOX:** 19 LB/MMCF (1) [Rule 2012] **NOX** 12.26 LB/MMCF NATURAL GAS (1)[Rule 2012] **NOX** 2.5 PPMV NATURAL GAS (4)[Rule 2005-BACT, Rule 1703 (a)(2)-BACT] **VOC:** 2.0 PPMV (4)[Rule 1303(a)(1)-BACT] **PM10**: 0.01 GRAIN/DSCF (5A) [Rule 475]; **PM10**: 0.1 GRAIN/DSCF (5) [Rule 409]; **PM10**: 11 LB/HR (5B) [Rule 475] **SOX**: .06 lb/MMBTU (8) [40 CFR60 Subpart KKKK]; **SO2**: (9) Acid Rain Provisions	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9 A195.1, A195.2, A195.3, A327.1, A443.1, B61.1, C1.1,C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

Equipment Description (Continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES, POWER GENERATION					
CO OXIDATION CATALYST NO. 7, BASF, 150 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 472157	C39	D37 C40			
SELECTIVE CATALYTIC REDUCTION NO. 7, CORMETECH CHMT-2, WITH 812 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH 11 FT 1 IN; WIDTH: 2 FT 2 IN; HEIGHT 4 FT 2 IN WITH NH3 INJECTION GRID A/N: 472157	C40	S42 C39		**NH3:** 5.0 PPMV (4) [Rule 1303(a)(1)-BACT]	A195.4 D12.2 D12.3 D12.4 E179.1 E179.2,E193.1, E193.3
STACK NO. 7, DIAMETER: 13 FT 6 IN, HEIGHT: 90 FT A/N: 472157	S42	C40			
GAS TURBINE, CTG. 8, NATURAL GAS, GENERAL ELECTRIC MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F WITH WATER INJECTION, WITH A/N 472158 GENERATOR, 103 MW	D43	C45	NOX: MAJOR SOURCE	**CO: 4**.0 PPMV NATURAL GAS (4) [Rule 1703 (a)(2)-BACT]; **CO:** 2000 PPMV (5) [Rule 407] **NOX:** 15 PPMV NATURAL GAS (8) [40CFR60 Subpart KKKK];**NOX:** 19 LB/MMCF (1) [Rule 2012] **NOX** 12.26 LB/MMCF NATURAL GAS (1)[Rule 2012] **NOX** 2.5 PPMV NATURAL GAS (4)[Rule 2005-BACT, Rule 1703 (a)(2)-BACT] **VOC:** 2.0 PPMV (4)[Rule 1303(a)(1)-BACT] **PM10**: 0.01 GRAIN/DSCF (5A) [Rule 475]; **PM10**: 0.1 GRAIN/DSCF (5) [Rule 409]; **PM10**: 11 LB/HR (5B) [Rule 475] **SOX**: .06 lb/MMBTU (8) [40 CFR60 Subpart KKKK]; **SO2**: (9) Acid Rain Provisions	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9 A195.1, A195.2, A195.3, A327.1, A443.1, B61.1, C1.1,C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

Equipment Description (Continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES, POWER GENERATION					
CO OXIDATION CATALYST NO. 8, BASF, 150 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 472160	C45	D43 C46			
SELECTIVE CATALYTIC REDUCTION NO. 8, ICORMETECH CHMT-2, WITH 812 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH 11 FT 1 IN; WIDTH: 2 FT 2 IN; HEIGHT4 FT 2 WITH NH3 INJECTION GRID A/N: 472160	C46	S48 C45		**NH3:** 5.0 PPMV (4) [Rule 1303(a)(1)-BACT]	A195.4 D12.2 D12.3 D12.4 E179.1 E179.2,E193.1, E193.3
STACK NO. 8, DIAMETER: 13 FT 6 IN, HEIGHT: 90 FT A/N: 472160	S48	C46			
System 2: EMERGENCY ENGINE					
INTERNAL COMBUSTION ENGINE, EMERGENCY FIRE, DIESEL FUEL, LEAN BURN, CLARKE, MODEL JU6H-UFADTO, 240 BHP WITH AFTERCOOLER, TURBOCHARGER, A/N: 472165	D49		NOX: PROCESS UNIT	**NOX+NMHC:** 3 GM/BHP-HR DIESEL (4) [RULE 1303; RULE 2005]; **NOX:** 134 LB/1000 GAL DIESEL (1) [RULE 2012] **CO:** 2.6 GM/BHP-HR DIESEL (4) [RULE 1303] **PM10:** 0.15 GM/BHP-HR DIESEL (4) [RULE 1303] **SOX:** 0.0055 GM/BHP-HR DIESEL (4) [RULE 2005];	B61.2,C1.4, D12.5, I296.3, K67.3

Equipment Description (Continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 2: STORAGE TANK					
STORAGE TANK, TK-1, FIXED ROOF, 29.4 PERCENT AQUEOUS AMMONIA, DIAMETER: 9'-4"; HEIGHT: 12'-0"; 12,000 GALLONS WITH PRV SET AT 25 PSIG WITH A/N: 472161	D52				C157.1, E144.1,E193.1
STORAGE TANK, TK-2, FIXED ROOF, 29.4 PERCENT AQUEOUS AMMONIA, DIAMETER: 9'-4"; HEIGHT: 12'-0"; 12,000 GALLONS WITH PRV SET AT 25 PSIG WITH A/N: 472162	D53				C157.1, E144.1,E193.1

Section D of the Facility Permit

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 3: RULE 219 EXEMPT EQUIPMENT SUBJECT TO SOURCE SPECIFIC RULES					
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATING	E54			**VOC:** (9) [Rule 1113],	K67.5
RULE 219 EXEMPT EQUIPMENT, EXEMPT HAND WIPING OPERATIONS	E55			**VOC:** (9) [Rule 1171]	

BACKGROUND

See FDOC dated August 28, 2008 for background information.

On July 25, 2007 the applicant filed applications with the AQMD for Permit to Construct for the CPV Sentinel Energy Project. The AQMD issued a PDOC on May 7, 2008 and a FDOC on August 29, 2008. The FDOC did not contain information regarding project's compliance with emissions offset requirements of Rule 1303 (b)(2). On November 3, 2008 the AQMD was ordered by LA Superior Court not to issue permit through Rule 1315, Rule 1304 and 1309.1. Prior to the court ruling the applicant was proposing to obtain ERCs credits for SOx and PM10 through Rule 1309.1 as amended on August 3, 2007 (NOx through RECLAIM system, VOC with purchase of ERCs).

The applicant has been working through the California Energy Commission (CEC) to secure a license which incorporates the AQMD Determination of Compliance. On November 3, 2008 the CEC held an evidentiary hearing on the proposed project covering all topics except air quality. The CEC ordered that the evidentiary record on all topics except air quality be closed on December 8, 2008.

With the passage of AB1318 (became effective on 1/1/2010) the applicant proposes to obtain offsets for PM10 and SOx from AQMD's internal offset bank as allowed under AB1318. On October 15, 2009 the applicant filed an Amendment to Permit to Construct/Operate application for the CPV Sentinel Energy

Project: In addition to the revised emissions offset strategy the applicant proposes project design refinements as listed below:

I Changes requiring AQMD Permits

- Remove blackstart engine (cancel AQMD application no. 472164)
- Tier 3 engine is now available for the fire pump, the applicant will propose a Tier 3 engine instead of a Tier 2 engine (BACT for NOx+VOC = 3.0 g/bhp-hr) under the same AQMD application no. 472165
- Reduce the operating hours from turbines 6 through 8 to equal the operating hours of the first 5 turbines (this will reduce the overall annual emissions and require less offsets for PM10, SOx and VOC) under applications for turbines 6 through 8 (AQMD applications nos. 472154, 472156 and 472158).
- Revise the PM10 emissions rate from each turbine from "6 lb/hr" to "5 lb/hr" under applications for turbines 1 through 8 (AQMD applications nos. 472139, 472141, 472143, 472147, 472150, 472154, 472156 and 472158) .
- Revise the CO BACT limit from "6 ppmv" to "4 ppmv" under applications for turbines 1 through 8 and their associated Air Pollution Control systems no 1 through 8 (AQMD applications Nos. 472139, 472141, 472143, 472147, 472150, 472154, 472156, 472158, 472140, 472142,472145, 472149, 472153, 472155, 472157 and 472160).

II Other changes that do not require AQMD Permits

- Remove the two proposed cooling towers, and provide one cooling tower per turbine
- Eliminate the operations buildings
- Remove one warehouse building and relocate another warehouse building
- Relocate the switchgear building
- Relocate the treated water storage tanks, water pumping skids and water treatment trailer parking

Along with the amendments to the Permit to Construct/Operate applications filed on October 15, 2009, CPV Sentinel also submitted a revised air quality dispersion modeling analysis and health risk assessment. The primary reason the applicant revised the modeling analysis was to ensure the proposed changes in locations of buildings and cooling towers would not cause a stack plume downwash conditions that would lead to higher offsite pollutant concentrations than were presented in the previous modeling evaluation. There is no change in emissions for short-term turbine commissioning impacts. At the time the addendum was filed with the District, GE revised the turbine PM10 emissions from 6 lbs/hr to 5 lbs/hr. The modeling was revised using the 5 lb/hr PM10 emissions rate. Planning, Rule Development & Area Sources (PRDAS) staff reviewed the air quality analysis and the health risk assessment (HRA) for the proposed project provided by CPV Sentinel and results of the review shows compliance with all applicable ambient concentrations and AQMD rules and regulations threshold standards.

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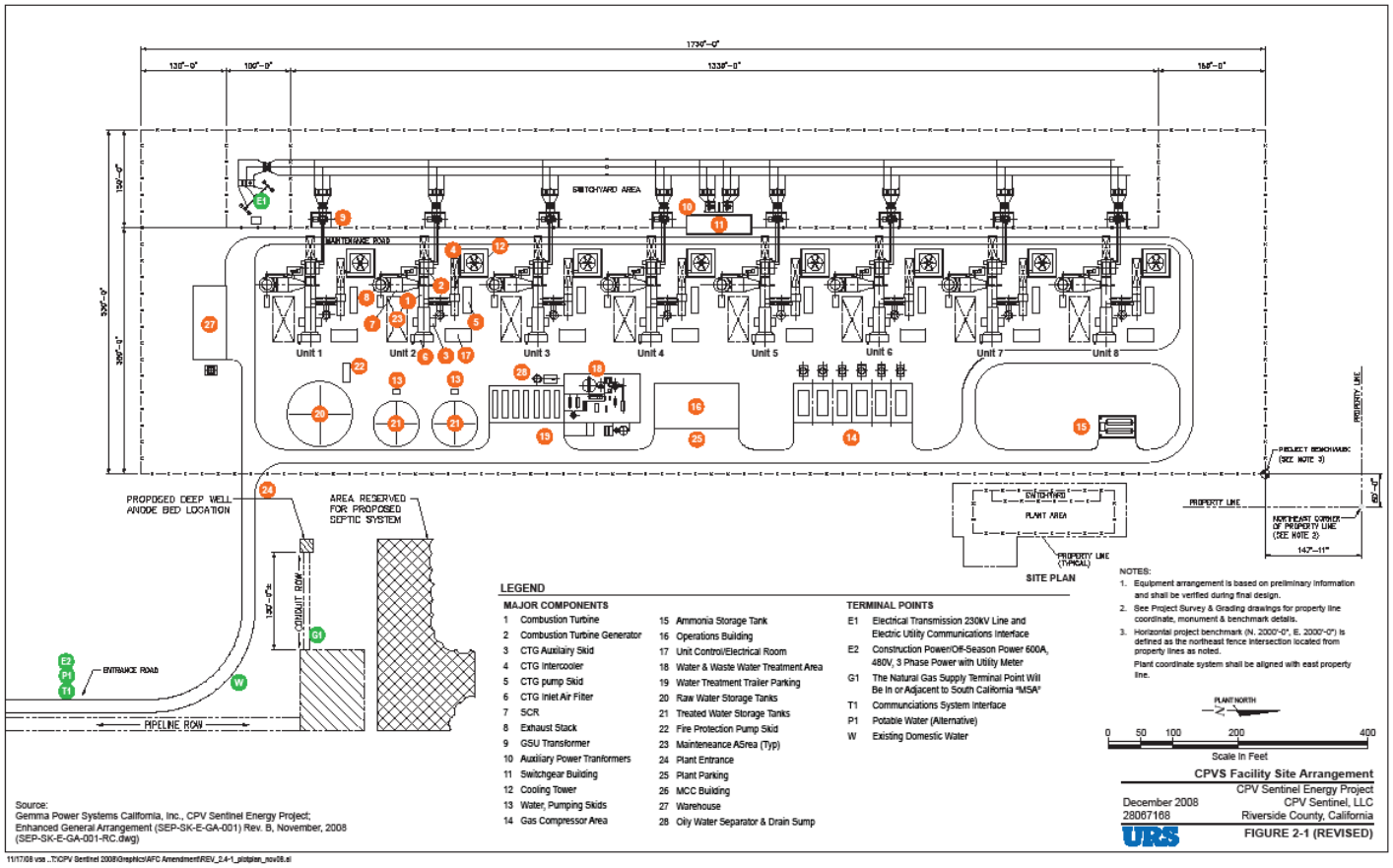
	PROCESSED BY: Roy Olivares	REVIEWED BY:

Site Description

The proposed location of CPV Sentinel is on an 37 acre parcel located 8 miles northwest of the center of the city of Palm Springs (62575 Powerline Rd, Desert Hot Springs, 92240). The parcel is undeveloped and is next to the Devers substation. CPV Sentinel will be located in an area zoned for industrial uses in the unincorporated area of Riverside County.



The revised site plan shown above was prepared for CPV Sentinel by URS and shows the general layout of the proposed facility. There will be one cooling tower per turbine and a couple of buildings were moved to different locations on the property. The project site is located in an remote area surrounded by air turbines and an Edison substation to the west. To the southeast is the Indigo Energy Facility (1.8 miles). To the north, east and south are Wind Farms The site locale is an industrial portion of the unincorporated are of Riverside County. The nearest residence is 330 feet east of the Facility and the applicant has an option to acquire the property. The second group of nearest residence is located 2.5 km (8,800 ft) southeast of the Facility.

COMPLIANCE RECORD

No change from FDOC

PROCESS DESCRIPTION

No change

Parameter	Specifications
Manufacturer	General Electric
Model	LMS100PA[1]
Fuel Type	PUC[2] Quality Natural Gas
Natural Gas Heating Value	1,018 BTU/scf
Operating condition	103
Gas Turbine Heat Input (HHV)	891.7 MMBTU/hr at 72°F and 40% relative humidity
Fuel Consumption	0.876 MMSCF/hr[3]
Gas Turbine Exhaust Flow	355534 SCFM
Gas Turbine Exhaust Temperature	785.1°F
Exhaust Moisture	6-8%
Gas Turbine Power Generation	101.279 MW
Net Plant Heat Rate, LHV	7939 BTU/kW-hr

GE revised the operating conditions and the condition no. 103 and there is a slight increase in NOx, CO and VOC emissions (in the second decimal point position). GE will revise the PM10 emissions based on 5 lb/hr.

Definition of a Peaking Unit in Rule 2012

No change, from FDOC

Air Pollution Control (APC) System

No change, from FDOC

Selective Catalytic Reduction/CO Catalyst Systems (A/Ns 472140, 472142, 472145, 472149, 472153, 472155, 472157 and 472156)

No change, from FDOC

CO Oxidation Catalyst

No change, from FDOC

Aqueous Ammonia Storage Tank (A/N 472161 and 472162)

No change, from FDOC

Heated Ammonia Vaporization Skid

[1] GE Manufactures two versions of the LMS100 CTG. CPV Sentinel plans to install the LMS100PA. The PA model utilizes water injection for NOx abatement while the PB version utilizes dry low emission (DLE) combustors for NOx abatement.
[2] PUC is the acronym for the California Public Utilities Commission
[3] Represents the maximum possible fuel consumption of the CTG, based on 875.7 MMBTU/hr heat input and 1,018 BTU/scf fuel heat content. However, the emission calculations will be based on a worst-case operating scenario as identified by the applicant, which may result in a lower fuel usage depending on the ambient temperature, the employment and rate of intercooling, water injection rates, and electrical load generated.

No change, from FDOC

Ammonia Distribution Header

No change, from FDOC

Performance Warranties

No change, from FDOC

Cooling Tower System

The applicant proposes to install 8 single cell-cooling towers mechanical draft evaporative coolings (each for one turbine) and not install the two cooling towers, both mechanical draft, one of five cells (for the first 5 turbines) and one with three cells for the final 3 turbines. The circulating water rate will be 6,900 gallons per minute (GPM) for each cooling tower . The Rule 1401 emissions were determined for this equipment to verify the equipment will be exempt from AQMD permit per Rule 219, see Appendix I for emissions calculations.

Emergency Fire Pump Engine (A/N 472165)

Tier 3 engines are now available for this HP range, see Appendix D for revised emissions

Emergency Blackstart Engine (A/N 472164)

The applicant request to cancel the blackstart engine application

CRITERIA POLLUTANT EMISSIONS

The total emissions from the power plant will include the summation of all eight CTGs and the emergency fire pump engine. The emissions from the gas turbines are based on the following formula and assumptions:

GE revised the PM10 emissions from the CTG to 5 lb/hr instead of 6 lb/hr, see guarantee e-mail dated 10/21/09. GE revised the emission for the various case runs. Case 103 has the highest emissions (minor changes) and will be used to update the emissions. The CO BACT was revised to 4 ppmv and the CO emissions will be revised (lower value).

Emissions for NOx, CO and VOC

$$EF(lb/hr) = ((ppmvd/1E06)/O2) \times (1 - H2O\%)/100) \times (MW/28lb/lb\text{-}mole \times ER$$

where,

ppmvd = Uncontrolled (or controlled) concentration at 15% O_2, dry basis
MW = Molecular weight, lb/lb-mol
O2 = O2 correction factor = (20.9-15)/(20.19-O2)
H20 =percent water in the exhaust
ER = exhaust mass rate in lb/hr

The values for O2, water percentage, mass rate were provided by GE (worst case operating scenario)

Emissions for SOx

$$EF(lb/hr) = (0.25g/100ft3) \times (1lb/7000gr)(mmbt/hr)(1E06btu/mmbtu)/918btu/ft3)(64lbSOx/32lbS)$$

where,

Sulfur content	= 0.25 lb grains/100 scf
Mmbtu/hr	=789.8 mm/btu/hr
Heating value (LLH)	= 918 btu/ft3
MW S	= 32 lb/mole
MW SOx	= 64.2 lb/mole

Emissions for PM_{10}

GE guarantees 5 lb/hr at maximum operating conditions

Assumptions:
1. Emissions are based on the worst case operating scenario
2. PM_{10} emissions are based on 0.0062 lb/MMBTU (GE guarantee)
3. SO_2 to SO_3 conversion in APC equipment is accounted for in the PM_{10} AP-42 emission factor
4. SOx emissions are based on 0.25 grains S/100 scf
5. 30-Day Averages are based on 485 hours/month of operation for turbines 1-8.
6. Emissions are based on total fuel consumption rather than total hours of operation

The applicant has identified eleven possible operating scenarios. The eleven scenarios are listed as operating conditions (OC) 100 through 110 in Appendix B in the Amendment to Permit to Construct/Operate application for the CPV Sentinel Energy project:

Table 10 - Operating Scenarios

	Ambient Temp °F	H_2O Injection, lb/hr	Relative Humidity (%)	Intercooler (on/off)	Compressor Inlet Temp °F
OC100	17	34407(100%)	80	Off	17
OC101	17	24526 (75%)	80	Off	17
OC102	17	15,618 (50%)	80	Off	17
OC103	72	31603 (100)	40	On	59.3
OC104	72	32072 (100)	40	Off	72
OC105	72	22056 (75%)	40	Off	72
OC106	72	13838 (50%)	40	Off	72
OC107	107	28441 (100%)	18	On	77.4
OC108	107	27730 (100%)	18	On	107
OC109	107	18956 (75)	18	On	107
OC110	107	11812 (50%)	18	On	107

Detail of Operating Conditions

GE re-ran the operating scenarios and there were slight changes in emissions. The emissions are based on operating Case 103 reveals that GE ran the tests while varying the water injection rate, and compressor inlet temperature. Ambient temperature was allowed to vary from a minimum of 17ºF to a maximum of 107ºF. Note from the table above that for each ambient temperature, the load was varied between maximum (100%), average (75%), and minimum (50%) loads. The top five cases where fuel flow to the CTGs is the greatest (and therefore yielding the highest emissions) are shown in the table below.

Table 11 - Worst Case Operating Scenario

	Top Operating Condition
	103
Ambient Temperature, °F	72
Ambient Pressure, psia	14.132
Fuel Consumption, MMBTU/hr LHV	804.1
Fuel Consumption, lb/hr	39034
Exhaust Temperature, °F	785.1
Load, MW	101.279
Water Injection (on/off)	On
Water Injection, lb/hr	28181
Intercooler (on/off)	On

Of the top five cases, the worst case scenario occurs during periods of maximum fuel consumption (804.1 MMBTU/hr), LHV at full load (101.279 MW), low ambient temperature (72ºF), with water injection in full use, and the intercooler not in operation, as identified in the table above by operating condition no. 103. Therefore, to address the worst case scenario, the facility's NSR emissions will be based on the parameters listed in operating condition no. 103.

There are essentially four modes of operation for the CTGs. Emissions from the four operating modes are distinctly different and must be calculated independently. The following table gives more detail of the four operating modes.

Table 12 - Operating Modes of the CTGs

Mode	Description
Commissioning	The process of fine-tuning each of the CTGs. Facility follows a systematic approach to optimize performance of each of the CTGs and the associated control equipment. Emissions are expected to be greater during commissioning than during normal operation. This mode affects only the initial year of operation not to exceed 150 hours per turbine.
Start-up	The applicant has indicated that there will be up to two start-ups per day for each CTG, with each start-up lasting 25 minutes. Start up emissions are higher due to the fact that the control equipment has not reached optimal temperature to begin the chemical reactions needed to convert NOx to elemental nitrogen and water.
Normal Operation	Normal operation occurs after the CTGs and the control equipment are working optimally, at their designated levels, i.e. NOx emissions are controlled to 2.5 ppmvd at 15% O_2, CO emissions to 4.0 ppmv at 15% O_2(revise CO emissions), and VOC to 2.0 ppmvd at 15% O_2. Emissions may vary due to ambient conditions.
Shutdown	Shutdown occurs at the initiation of the turbine shutdown sequence and ends with the cessation of CTG firing, and will last approximately 10 minutes thereafter. Typically, the shutdown process will emit less than the start-up process but may emit slightly greater than during normal operation because both H_2O injection into the CTGs and NH_3 injection into the SCR reactor have ceased operation

Commissioning Period

No change, except the PM10 emissions rate will be based on 5 lb/hr instead of 6 lb/hr.

Table 13 - Proposed Commissioning Schedule

Description	Power Level	Corrected Operating Hours	Estimated Fuel Rate (MMBtu/hr)	Total Estimated Emission per Event				
				NO_X (lbs)	CO (lbs)	VOC (lbs)	PM_{10} (lbs)	SO_X (lbs)
*** First fire the unit & then shutdown to check for leaks, etc**								
	Core/Sync Idle	23	73.5	257	1049	27	115	1.2
*** Synch & Check E-stop**								
	Sync Idle	17	73.5	192	786	20	87	0.9
*** Additional AVR Commissioning**								
	5%	17	92.8	362	524	13	87	1.1
*** Break-in Run**								
	5%	12	92.8	241	349	8	58	0.7
*** Dynamic Commissioning of AVR & Commission Water**								
Load Step 1	10.00%	6	166	96	400	30	29	0.7
Load Step 2	20.00%	6	246	142	261	15	29	1.0
Load Step 3	30.00%	6	319	185	261	15	29	1.3
Load Step 4	40.00%	6	389	225	231	15	29	1.6
Load Step 5	50.00%	6	457	265	190	16	29	1.8
Load Step 6	60.00%	6	525	304	260	19	29	2.1
Load Step 7	70.00%	6	591	342	356	24	29	2.4
Load Step 8	80.00%	6	659	382	503	30	29	2.7
Load Step 9	90.00%	6	728	421	744	43	29	2.9
Load Step 10	100.00%	6	798	463	1138	69	29	3.2
Subtoal		58		2826	4344	277	288	20
*** Base load AVR Commissioning**								
	100%	23	798	1850	4550	275	115	12.9
COMPLETE - TOTAL ESTIMATED FIRED HOURS								
		150		**5729**	**11603**	**620**	**749.5**	**37**

The above table, the PM10 emissions were revised

Start-up / Shutdown of CTGs

No change, turbines 6-8 will have the same number start-ups/shutdowns as the first five turbines.

Normal Operations

The emissions during normal operations are assumed to be fully controlled to Best Available Control Technology (BACT) levels, and exclude emissions due to commissioning, start up and shutdown periods, which are not subject to BACT levels. Hourly, monthly, and annual emissions as well as the 30-day averages are calculated and shown in Appendices A through E. The emission calculations for the emergency fire pump are contained in Appendix D .

Emissions During A Non-Commissioning Year

The tables below shows the individual and cumulative emissions during a non-commissioning year from all 8 gas turbines which includes, start-up, shutdown and normal operation, as well as the emissions from the emergency fire pump which is to operate for the designated maximum of 50 hours per year (permit limit.

A. Emissions per Turbine

Mass Emission Rates, lb/hr (Non-Commissioning Year)

	Emissions, lb/hr				
LMS100PA CTG	NOx	CO	VOC	SO_2	PM_{10}
Normal Operations	7.95	7.74	2.21	0.63	5
Start up	59.76	38.15	10.21	0.42	5
Shutdown	34.95	203.88	17.48	0.12	5

Based on start-up time of 25 min per day, total time 50 minutes (0.83 hrs)
Based on 2 shut downs per day, total time 20 minutes (0.33 hr)
The start-up and shut down emissions for the purposes of calculations were assume to occur over one hour, then it makes the emissions calculations in the following tables easier to manage (data provide by GE)
Note, the CO emissions revised to 4 ppmv, based on a recent BACT determination

Turbine Mass Emission Rates per turbine, lb/dy (Non-Commissioning Year)

	Emissions, lb/dy				
LMS100PA CTG	NOx	CO	VOC	SO_2	PM_{10}
Start-up	50	32	9	0.35	4
Normal operations	119	116	33	9	75
Shutdown	12	67	6	0.040	2
TOTALS	**181**	**215**	**47**	**9.78**	**81**

Each turbines will operate up to 15 hours per day (excluding start-up and shut down times)
Based on 2 start-ups per day, total time 50 minutes (0.83 hrs)
Based on 2 shut downs per day, total time 20 minutes (0.33 hr)

Turbine Mass Emission Rates per turbine, lb/month (Non-Commissioning Year)

	Emissions, lb/month				
LMS100PA CTG	NOx	CO	VOC	SO_2	PM_{10}
Start-up	1494	954	255	11	125
Normal Operations	3578	3484	995	282	2250
Shutdown	350	2039	175	1	50
TOTALS	**5421**	**6447**	**1424.55**	**293.4**	**2425**

Turbines will operate up to 15 hours per day, every day of the month
Up to 2 start-ups and shut downs per day

Total combines turbine Mass Emission Rates, lb/month (Non-Commissioning Year)

	Emissions, lb/month				
LMS100PA CTG	NOx	CO	VOC	SO_2	PM_{10}
Start-up	11952	7632	2064	84	1000
Normal Operations	28624	27872	7992	2599	2256
Shutdown	2800	16312	1400	10	400

TOTALS	**43368**	**51813**	**11456**	**2347**	**19400**

Mass Emission Rates, lb/year (Non-Commissioning Year)

	Emissions, lb/year				
LMS100PA CTG	NOx	CO	VOC	SO_2	PM_{10}
Start-up	59760	38152	10320	424	5000
Normal Operations	167144	162776	46464	13160	105120
Shutdown	13984	81552	6992	48	2000
TOTALS	**240881**	**282475**	**63665**	**13629**	**112120**

Emissions During A Commissioning Year

The tables below show the emissions during a commissioning time per each gas turbines which includes commissioning, start-up, shutdown and normal operation,

Commissioning Emissions rate per Turbine and hours of operations per testing phase

Description		NOx	CO	VOC	SOx	PM10
	hrs	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
First fire	23	11.17	45.59	1.16	0.05	5
Synch & Check E-stop	17	11.29	46.24	1.18	0.05	5
Additional AVR	17	21.29	30.80	0.74	0.07	5
Break-in run	12	20.08	29.09	0.70	0.06	5
Dynamic AVR	58	48.72	74.90	4.77	0.34	5
Base load AVR	23	80.43	197.85	11.98	0.56	5
total- lb/hr	150					

Turbine emissions lb/hr per turbine, lb/mon and 30 day ave

Description	NOx	CO	VOC	SOx	PM10
	lb/mon	lb/mon	lb/mon	lb/mon	lb/mon
First fire	257	1048.56	26.68	1.19	115
Synch & Check E-stop	192	786.06	20.05	0.89	85
Additional AVR	362	523.56	12.55	1.12	85
Break-in run	241	349.04	8.37	0.75	60
Dynamic AVR	2826	4344.23	276.78	19.71	290
Base load AVR	1850	4550.48	275.48	12.90	115
total lb/hr ave	38.19	77.35	4.13	0.24	5
totals/mon	5728	11601.92	619.90	36.56	750
30 ave	**185**	**374**	**20**	**1**	**24**

Note the commissioning of each turbine will be conducted during one month period and after commissioning is completed for the month, then normal operation will not proceed until the following month.

Total Turbine monthly emissions (commissioning month-lb/month)

Turbine	CO lb/mon	NOX lb/mon	VOC lb/mon	PM10 lb/mon	SOx lb/mon
Unit 1	11,602	5,728	620	750	37
Unit 2	11,602	5,728	620	750	37
Unit 3	11,602	5,728	620	750	37
Unit 4	11,602	5,728	620	750	37

Unit 5	11,602	5,728	620	750	37
Unit 6	11,602	5,728	620	750	37
Unit 7	11,602	5,728	620	750	37
Unit 8	11,602	5,728	620	750	37
Total	92,815	45,824	4,959	6,000	292

Total combined Turbine (1-8) Mass Emission Rates, lb/year (Commissioning Year)

	Emissions, lb/year				
LMS100PA CTG	NOx	CO	VOC	SO_2	PM_{10}
Start-up	59760	38152	10208	424	5000
Normal Operations	167144	162776	46464	13160	105120
Shutdown	13984	81552	6992	48	2000
Commissioning	45832	92824	4960	296	6000
TOTALS	**286720**	**375295**	**68624**	**13928**	**118120**

The only difference between the lb/yr for commissioning year versus a non-commissioning year, is the additional 150 hrs per turbine of commissioning testing hours.

30-Day Averages

The 30 Day Average emissions are calculated in Appendix B for both a commissioning and non-commissioning year for the worst case operating scenario. The worst case operating scenario was defined as OC100 in Table 10 above. The values in the tables below are the cumulative 30 day averages for the entire facility (8 CTGs, the emergency fire pump and the cooling tower).

Cumulative 30-Day Averages, lb/day (Commissioning Year)

	30 Day Average, lb/day				
Eight LMS100PA CTGs	NOx[4]	CO	VOC	SOx	PM_{10}
Commissioning		2994	160	9	194
TOTALS		**2994**	**160**	**9**	**194**

The above table assumes all the turbines are commissioned in the same month for the worst case emissions scenario. Once the commissioning is completed for one turbine, then following month the turbine can commence normal operations (permit conditions will address this issue).

Cumulative 30-Day Averages, lb/day (Non-Commissioning Year)

	30 Day Average, lb/day				
Eight LMS100PA CTGs	NOx[6]	CO	VOC	SOx	PM_{10}
Total Operations		1671	367.6	75.68	625.84
TOTALS		**1671**	**367.6**	**75.68**	**625.84**

The above table assumes all the turbines are in normal operations and providing electricity to the electrical grid in the same month for the worst case emissions scenario.

[4] CPV Sentinel has elected to enter RECLAIM. As such, RECLAIM Trading Credits (RTC) will be used to satisfy the NOx offsetting requirements of Rule 2005, and therefore the 30-Day Averages for NOx need not be calculated

The following is a comparison of the cumulative 30-day averages for the entire facility (8-LMS100 PA gas turbines) for both a commissioning year and a non-commissioning year. The maximum 30-day averages for each pollutant, shown in bold.

	NOx[6]	CO	VOC	SOx	PM_{10}
Facility 30 Day Average (Commissioning Year)		**2994**	160	9	94
Facility 30 Day Average (Non-Commissioning Year)		1671	**367.6**	**75.68**	**625.84**

The following table shows the 30-day averages from one individual LMS100PA gas turbine for both a commissioning year and a non-commissioning year. The maximum 30-day averages for each pollutant are shown in bold.

Turbine

	NOx[6]	CO	VOC	SOx	PM_{10}
30 Day Average (Commissioning Year)		**372**	20	1	24
30 Day Average (Non-Commissioning Year)		209	**45.95**	**9.46**	**78.23**

Emissions from the Fire pump engine

	NOx	CO	VOC	SOx	PM_{10}
Lb/hr	**1.545**	**0.36**	0.04	0.0022	0.048
Lb/dy	**1.545**	**0.36**	0.04	0.0022	0.048
30-day ave	n/a	0	**0**	**0**	**0**
Lb/yt	**77.25**	**18.02**	**2.02**	**0.11**	**2.38**

Updated emissions applicant proposes to install a Tier 3 fire pump engine

PROHIBITORY RULE EVALUATION

RULE 212-Standards for Approving Permits

The facility emissions was revised and there is a reduction in emissions for all pollutants. The project was already noticed to the public, with the emissions reductions, the new public notice is not required.

Previous Total Project emissions

	Emissions, lb/month					
Equipment	NOx	CO	VOC	SO_2	PM_{10}	NH3
LMS100PA CTG	**48261**	**72899**	**12788**	**2693**	**27060**	25,403
Fire pump engine	13	2	0	0	0	
Blackstart engine	18	4	1	0	0	
TOTALS	**48292**	**72905**	**12789**	**2693**	**27060**	25403

NH3 = 5.86 b/hr

NH3 = ((450 hr/mon * 5 turbines) + (695 hr/mon * 3 turbines)) * 5.86 lb/hr = 25403

Revised Total Project emissions

	Emissions, lb/month					
Equipment	NOx	CO	VOC	SO_2	PM_{10}	NH3
LMS100PA CTG	**43368**	**51813**	**11396**	**2347**	**19400**	21202
Fire pump engine	6.44	1.50	0.0	0	0	
TOTALS	**43374**	**51815**	**11396**	**2347**	**19400**	21202

NH3 = 5.86 b/hr

NH3 = ((450 hr/mon * 8 turbines) * 5.89 lb/hr = 21204 lb/mon

RULE 219-Exempt equipment not requiring permits

The Cooling tower is exempt from AQMD permit per section (d)(3) . The MICR from this equipment is less than one in one million risk (max 0.00957 in a million) for the combined eight cooling towers.MICR reviewed by District modeling staff and MICR is less than the threshold value of this Rule, thus the equipment is exempt from requiring a Permit to Operate.

RULE 401-Visible Emissions

No change, from FDOC

RULE 402-Nuisance

No change, from FDOC

RULE 403-Fugitive Dust

No change from FDOC

RULE 407-Liquid and Gaseous Air Contaminants

No change from FDOC

RULE 409-Combustion Contaminants

This rule restricts the discharge of contaminants from the combustion of fuel to 0.1 grain per cubic foot of gas, calculated to 12% CO_2, averaged over 15 minutes. The equipment is expected to meet this limit based on the calculations shown below:

Estimated exhaust gas	355,534 SCFM = 21.33 mmscf/hr
Water content	12.2279
Estimated exhaust gas	355534 SCFM * (1-0.122279) = 312,060
Estimated exhaust gas	312,060 DSCFM * (60 min/hr) * (1mmcf/1E06 ft3)
Estimated exhaust gas	18.72 mmscf/hr
Maximum PM10 Emissions	5 lb/hr
Estimated CO2 in exhaust	3.9964%

Grain Loading $= \frac{(5\ lb/hr)(700\ 0\ gr/lb)}{18.72EE6\ \ scf/hr} \times \frac{12}{3.6634}$ = 0.00612 gr/dscf << 0.1 gr/dscf

The fire pump engine is not subject to this Rule.

RULE 431.1-Sulfur Content of Gaseous Fuels

No change.
Historically the sulfur content of the fuel has been less than 4 ppmv for combustion sources and the 16 ppmv sulfur content is the max allowed by the Rule. The applicant provided in the CEC application submittal the sulfur content (table 5.2-2) and the range is from 0.051 to 0.119 gr/100 ft3. The applicant for the purposes of offsets will limit the sulfur content to 0.25 gr/100 ft3 (permit condition and also require monthly testing for the sulfur content).

RULE 431.2-Sulfur Content of Liquid Fuels

No change from FDOC

RULE 474-Fuel Burning Equipment-Oxides of Nitrogen
Superseded by NOx RECLAIM.

RULE 475-Electric Power Generating Equipment
This rule applies to power generating equipment greater than 10 MW installed after May 7, 1976. Requirements are that the equipment meet a limit for combustion contaminants of 11 lbs/hr or 0.01 gr/scf. Compliance is achieved if either the mass limit or the concentration limit is met. Mass PM10 emissions from the turbine are estimated at 5.0 lbs/hr, and 0.0038 gr/scf during natural gas firing at maximum firing load (see calculations below). Therefore, compliance is expected. Compliance will be verified through the initial performance test.

$$Stack\ \ Exhaust\ \ Flow\left(\frac{scf}{hr}\right) = F_d\ \ x\ \frac{20.9}{\left(20.9 - \%O_2\right)}\ x\ TFD$$

where:
Fd: Dry F factor for fuel type, 8710 dscf/MMBtu
O2: Rule specific dry oxygen content in the effluent stream, 3%
TFD: Total fired duty measured at HHV, 891.7 MMBtu/hr

$$Combustion\ Particulate\left(\frac{grain}{scf}\right) = \frac{PM_{10}, lb/hr}{Stack\ \ Exhaust\ \ Flow, scf/hr}\ x\ 7000\ \frac{gr}{lb}$$

Stack flow = 8710(20.9/17.9)*897.7 = 9.13 mmscf/hr

Combustion particulate = (5.0/9.13E+06)*7000 = 0.0038 gr/scf

RULE 1110.2 – Emissions from gaseous- and liquid fueled engines

No change from FDOC

RULE 1134 – Emissions of NOx from Gas Turbines

No change from FDOC

RULE 1135 – Emissions of NOx from Electric Power Generating Systems

No change from FDOC

NEW SOURCE REVIEW (NSR) ANALYSIS

The following section describes the NSR analysis for CPV Sentinel. The facility can comply with NSR either by qualifying for various exemptions from or by demonstrating compliance with the following rules, except the emissions offsets requirements for PM10 and SOx is evaluated as specified in Appendix N. Each piece of equipment at CPV Sentinel is evaluated for compliance with the rules in the table below.

Table 14 - Applicable NSR Rules for CPV Sentinel

Applicable NSR Rules for Non-RECLAIM Pollutants (CO, VOC, SOx, PM_{10})	Applicable NSR Rules for RECLAIM Pollutants (NOx)
Rule 1303(a)-BACT	Rule 2005(b)(1)(A)-BACT
Rule 1303(b)(1)-Modeling	Rule 2005(b)(1)(B)-Modeling
Rule 1303(b)(2)-Offsets	Rule 2005(b)(2)-Offsets
Rule 1303(b)(3)-Sensitive Zone Requirements	Rule 2005(e)-Trading Zone Restrictions
Rule 1303(b)(4)-Facilitywide Compliance	Rule 2005(g)-Additional Requirements
Rule 1303(b)(5)-Major Polluting Facilities	Rule 2005(h)-Public Notice
Rule 1701 (b)(1) and Rule 1703 (a)(2) BACT for NOx, SOx and CO	Rule 2005(i)-Rule 1401 Compliance
	Rule 2005(j)-Compliance with Fed/State NSR

RULE 1303(a), Rule 2005(b)(1)(A)-BACT and Rules 1701 (b)(1) and 1703 (a)(2)– LMS100 CTGs

These rules state that the Executive Officer shall deny the Permit to Construct for any new source which results in an emission increase of any non-attainment air contaminant, any ozone depleting compound, or ammonia unless the applicant can demonstrate that BACT is employed for the new source. CPV Sentinel is a new source with a potential for an increase in emissions and therefore, BACT is required. Each of the LMS100 CTGs proposed for construction by CPV Sentinel will be operated on a simple cycle (no steam turbine, HRSG, or secondary electrical generator is associated with simple cycle configurations). As of the date of this evaluation, BACT for simple cycle gas turbines is shown in Table 15 below:

Table 15 - BACT Requirements for Simple Cycle Gas Turbines

NOx	CO	VOC	PM_{10}/SOx	NH_3
2.5 ppmvd, @ 15% O_2, 1-hour average	4.0 ppmvd, @ 15% O_2, 1-hour average	2.0 ppmvd, @ 15% O_2, 1-hour average	PUC quality natural gas w/ S content ≤ 1 grain/100 scf	5.0 ppmvd @ 15% O_2, 1-hour average

This information was based on a current BACT standards for this type of equipment. The CO BACT was revised after the FDOC was issued last year. Since the permits to construct has not been issued and the facility is a Major Source, the new BACT requirement applies. The new CO BACT limit is 4 ppmv, ref City of Riverside, Public Utilities Dept-Riverside Energy Resource Center, id 139796, a/n 481647 and 481649

Table 16 - Proposed BACT for CPV Sentinel CTGs

NOx	CO	VOC	PM_{10}/SOx	NH_3
2.5 ppmvd, @ 15% O_2, 1-hour average	4.0 ppmvd, @ 15% O_2, 1-hour average	2.0 ppmvd, @ 15% O_2, 1-hour average	PUC quality natural gas w/ S content ≤ 1 grain/100 scf	5.0 ppmvd @ 15% O_2, 1-hour average

Natural gas provided by the Gas Company is limited to 16 ppmv in the South Coast by Rule 431.1, Generally , the actual sulfur content is 4 (4 ppmv corresponds to 0.25 gr/100 scf). Actual gas content for combustion sources in the District is less than 4 ppmv. Rule 431.1 is not an offset rule and the applicant proposes to limit the sulfur content to less than 4 ppmv (permit condition, requires monthly testing for sulfur content)

A NOx CEMS will be used to verify compliance with the NOx BACT limit and a CO CEMS will be used to verify compliance with the CO BACT limit. The proposed control levels in the table above will meet current BACT requirements for all criteria pollutants including NH_3. BACT is satisfied for each of the CTGs.

During start-up operations for the turbines (see pages 23 and 24 for more information and see e-mail dated 6/13/08 for the start-up emissions profile) , the control system will not be on line because the catalyst have a minimum inlet temp in order to reduce the pollutants the required BACT concentration limits. The turbine is equipped with water injection (limited NOx controls) and the NOx emissions during start-up is reduced to 25 ppmv. Condition A433.1 limits the NOx emissions during the first hour of operation (includes start-up emissions with water injection in operation) and limits the number of start-ups per year and length of each start-up. During start-up it is not practical to require a NOx ppmv limit, but to limit the emissions during the start-up hour as done in condition A433.1, thus BACT needs to be defined during start-up to include the following

- Limit start-up time-condition, A99.1, A99.2, A99.3, A99.4, A99.9, A99.10, A433.1 and A433.2
- Limit start-ups per year- conditions, A99.1, A99.2, A99.3, A99.4, A99.9, A99.10, A433.1 and A433.2
- Limit NOx emissions per start-up hours, requires water injection to be used to comply- condition A433.1

RULE 1303(a) and Rule 2005(b)(1)(A)-BACT – Emergency Fire Pump Engine

Tier 3 fire pump is available, the applicant will propose a Tier 3 engine, the NOx+VOC will be less than 3 g/bhp-hr (actual 2.627 g/bhp-hr), CO is listed at 0.6 g/bhp-hr and PM10 is listed at 0.079 g/bhp-hr

RULE 1303(a)-BACT – Cooling Tower

Rule 219(e)(3) provides and exemption for water cooling towers and water cooling ponds not used for evaporative cooling of process water or not used for evaporative cooling of water from barometric jets or from barometric condensers and in which no chromium compounds are contained. The eight cooling tower being proposed at CPV Sentinel will meet the requirements of Rule 219(s)(2), Rule 1401 MICR well below one in one million limits and is therefore exempt from NSR. BACT therefore does not apply.

RULE 1303(a)-BACT – Ammonia Storage Tank

No change from FDOC

RULE 1303(b)(1) and Rule 2005(b)(1)(B) - Modeling

The primary reason for revising the previous air quality impact analysis was then to ensure that proposed changes in the locations of certain project emissions sources and changes to the dimensions and locations of other buildings and structures on the site would not cause stack plume downwash conditions that would lead to higher offsite pollutant concentrations than were presented in the previous submittals to the District. The applicant has conducted air dispersion modeling using the EPA AERMOD model. The Tier 4 Health Risk Assessment was conducted in accordance with guidelines set forth by the California Office of Environmental Health Hazard Assessment (OEHHA) and the California Air Resources Board (CARB). The OEHHA/CARB computer program (HARP) was used to determine the health risk assessment. The air dispersion model was run at a single normalized emission rate of 1.0 gram/sec. The applicant has submitted modeling results for both a commissioning and non-commissioning year which considered building downwash effects through the use of the EPA Building Profile Input Program, a program which is compatible with the ISCST3 model. Effects of terrain slope, aspect ratio, plume height, wind speed, wind direction and temperature were also accounted for in the analysis. The AERMOD model requires both surface and upper air meteorological data in the modeling applications. The National Weather Service (NWS) surface data at Dagget-Barstow station were used with wind data from the Wintec Wind Engery facility. The upper air data were obtained from the Desert Rock station in Nevada because it has the best data coverage for the modeling application. The analysis further accounted for flat, simple, intermediate, and complex terrain. Terrain features were taken from 1-second U.S. Geological Survey (USGS) data taken from its Digital Elevation Model (DEM). The DEM data provides terrain elevations with 1-meter vertical resolution and 10-meters horizontal resolution based on a UTM coordinate system. The EPA SCREEN3 model was used to estimate potential impacts due to fumigation. Potential fumigation impacts were estimated for NO_2, CO, and SO_2. Table A-2 shown below is found in Rule 1303 and lists the most stringent ambient air quality standards and allowable change in concentration for each air contaminant. The appropriate averaging times are also listed.

Table A-2
Most Stringent Ambient Air Quality Standard and
Allowable Change in Concentration
For Each Air Contaminant/Averaging Time Combination

Air Contaminant	Averaging Time	Most Stringent Air Quality Standard		Significant Change in Air Quality Concentration	
Nitrogen Dioxide	1-hour	25 pphm	338 µg/m^3	1 pphm	20 µg/m^3
	Annual	5.3 pphm	56 µg/m^3	0.05 pphm	1 µg/m^3
Carbon Monoxide	1-hour	20 ppm	23 µg/m^3	1 pphm	1.1 µg/m^3
	8-hour	9.0 ppm	10 µg/m^3	0.45 pphm	0.50 µg/m^3
Suspended Particulate Matter <10µm (PM_{10})	24-hour		50 µg/m^3		2.5 µg/m^3
	AGM[5]		30 µg/m^3		1 µg/m^3
SO2	24-hour		25 µg/m^3		1 µg/m^3

The applicant is required under Rule 1303(b)(1) to demonstrate compliance with one of the following requirements:

(a) The most stringent air quality standard shown in Table A-2 above, or

[5] AGM is the acronym for Annual Geometric Mean

(b) The significant change in air quality concentration standards shown in Table A-2 above, if the most stringent air quality standards are exceeded

The applicant has submitted the following modeled maximum project impacts for CPV Sentinel. The applicant estimated the air quality impacts for many scenarios which included the commissioning, startup, normal operation, and shutdown phases. The worst-case scenario was identified for each pollutant and each averaging period. The numbers in the table below are per turbine.

Maximum individual Turbine Impacts for CPV Sentinel

Pollutant	Averaging Time	Turbine no.	Max Impact ($\mu g/m^3$)	Background ($\mu g/m^3$)	Total Impact ($\mu g/m^3$)	Most Stringent Standard ($\mu g/m^3$)	Significant Change in air quality concentration (ug/m^3)	Comply (Yes/No)
NOx	1-hour	NO. 8	22.50	174.8	197.3	338	N/a	Yes
	Annual	No. 6	0.077	24.5	24.58	56	N/a	Yes
SO2	24-hour	No. 7	0.38	39.4	39.78	105	n/a	Yes
	1 -hour	No. 7	1.45	62.5	63.95	655	n/a	Yes
	3-hour	No. 7	1	41.6	42.6	1300	n/a	Yes
	Annual	No. 8	0.06	10.7	10.76	80	n/a	Yes
CO	1-hour	NO. 8	34.04	2645	2679	23,000	N/a	Yes
	8-hour	NO. 7	10.46	944.4	954.86	10,000	N/a	Yes

Note, for the above values, the entire project impacts is less than concentration standards, see memo dated 11/13/09 by Naveen Barry

Pollutant	Averaging Time	Turbine no.	Max Impact ($\mu g/m^3$)	Significant Change in air quality concentration (ug/m^3)	Comply (Yes/No)
PM_{10}	24-hour	8	1.99	2.5	Yes
	AGM	8	0.06	1	Yes

As seen from the table above, both the 24-hour and AGM air quality standards for PM_{10} will be comply with the Significant Change in Air Concentration limit. The basin is non-attainment for PM10, the more stringent standard applies. Therefore, the applicant will be required to show compliance with the significant change in air quality standards for PM_{10}.

The CO and NOx emissions were based on normal operation of the turbines (max hourly emissions), The short term impacts for the commissioning operations did not change and was not modeled. The CO BACT limit was revised to 4 ppmv instead of 6 ppmv, the revised CO modeling was based on 6 ppmv, because the consultant did not have enough time to update the modeling based on 4 ppmv for CO. The PM10 emissions were based on 5 lb/hr. Note, CARB adopted new NOx standards of 338 ug/m3 (1 hour) and 56 ug/m3 (annual) and the standards took effect in May 2008. Each turbine will comply with the revised NOx standards.

AQMD modeling staff reviewed the applicant's analyses for both air quality modeling and health risk assessment (HRA). Modeling staff provided their comments in a memorandum from Mr. Barry to Mr. Mike Mills dated November 13, 2009, see Appendix M. A copy of this memorandum is contained in the engineering file. Staff's review of the modeling and HRA analyses concluded that the applicant used EPA AERMOD model (version 07026) along with the appropriate model options in the analysis for NO_2, CO, PM_{10}, and SO_2. The applicant modeled both the cumulative and individual permit unit impacts for the

project. The memorandum states that the ISCST3 modeling as performed by the applicant conforms to the District's dispersion modeling requirements. No significant deficiencies in methodology were noted.

Protection of Visibility. The visibility analysis was not revised. The revisions to the project will result in the short-term project emissions to be either at the same level or less than what was previously analyzed. The second largest source of combustion pollutant emissions was the blackstart engine, which has been removed from the project. The PM_{10} emissions from the cooling towers are less than the emissions originally included. Therefore, the visibility impacts from the revised project are less than the PLUVUE II impacts contained in the original report. Confirmed by District modeling staff, see memo dated 11/13/09.

PSD Analyses The applicant estimated the emissions from the proposed project for NO_2, CO, PM_{10}, and SO_2. The emission summary is Appendix C. Rule 1702 (m) (1) states that a major stationary source includes steam electric plants of more than 250 MMBTU/hr heat input. Although this facility will have a heat input of greater than 250 MMBTU/hr, it only produces electric power through mechanical means and not through a steam process as defined under subsection (1) of the rule. Therefore, the proposed simple cycle units are subject to subsection (2) which places the Major Stationary Source threshold on emissions of 250 tons per year or more. The maximum NOx potential to emit for these 8 turbines is 143 tons per year, therefore, this project is not considered a Major Stationary Source and is not subject to the rule 1703 NOx PSD analysis.

RULE 1303(b)(2) and Rule 2005(b)(2)-Offsets – LMS100 PA CTGs

Since CPV Sentinel is a new facility with an emissions increase, offset requirements apply. CPV Sentinel has opted into AQMD's NOx RECLAIM program and as such, NOx increases will be offset with RTCs at a 1.0 to1 ratio. For non-RECLAIM non-attainment (or precursors to non-attainment) criteria pollutants the VOC emissions will be offset by the purchase of Emission Reduction Credits (ERCs) at a 1.2 to 1 ratio. Since CO is an attainment pollutant there are no offset requirements for CO. For PM10 and SOx emissions offsets please refer to Appendix N.

I Required Offsets for RECLAIM Pollutants (NOx)

The required RTCs for NOx for the first and second years of operation are shown below. The values include start-ups, commissioning (first year only), normal operation, and shutdowns, see Appendix F for details. (The total emissions for the second year excludes commissioning).

Turbines one through eight

Operating Condition 103	Hours per Year	NOx (lb/hr)	NOx (lb/year) per device	NOx (lb/year) cumulative
CTGs				
Startup	125	59.76	7,470.00	59,760
Shutdown	50	34.95	1,747.50	13,980
Normal Operation	2,628	7.95	20,862.60	167,147.8
Commissioning	150	38.19	5,728.50	45,828

CTG Totals	2,953		35,838.60	286,708.80

	Hours per Year	NOx (lb/hr)		NOx (lb/year) cumulative
Operating Condition 103				
CTG 1-8 Totals				286,708.8
Emergency Fire Pump	50	1.54	77.25	77.25
Total 1st Year Emissions (lb/year)				286,786.05
Offset Ratio				1.00
1st year RTCs (lb/year)				**286,786.05**
2nd year RTCs (lb/year)				**241,958.05**

II Required Offsets for Non-RECLAIM Pollutants (VOCs, SOx, CO and PM10)

Table 18 shows the facility-wide 30-day averages for CO and VOC. Offsets are based upon 30-day averages from individual permit units. As mentioned above, CPV Sentinel may elect to use ERCs or other means to provide the required offsets. The amounts in Table 18 are required to fully offset the facility increases and satisfy the requirements of Rule 1303(b)(2):

Table 18 – 30-Day Averages for the Entire Facility, (lb/day)

	NOx	CO	VOC
Maximum 30 Day Average		2994	367.6

Table 19 - Required Offsets for Non-RECLAIM Pollutants (for entire facility)

	NOx	CO	VOC
Maximum 30 Day Average		2994	367.6
Offset Ratio		1.2	1.2
Required Offsets			**441.42**
Required Offsets			**441**

Table 20 - Required Offsets for Non-RECLAIM Pollutants (per-turbine basis lb/day)

	NOx	CO	VOC
Maximum 30 Day Average		374	45.95
Offset Ratio			1.2
Required Offsets			**55.14**

Offsets are not required for CO, since the Salton Sea Air Basin in AQMD is in attainment with CO. The CO emissions are listed for informational purposes only in this section, however the analysis for attainment pollutants is disussed under Regulation XVII.

The table below shows the total amount of VOC ERC's that CPV Sentinel has purchased as of February 28, 2010. The table consists of two ERC certificates for VOC (certificate no. see below) purchased on 3/27/08, from Tenaska in the amount of 412 lb/day.

Total Amount of Emission Reduction Credits currently held by CPV Sentinel

Pollutant	ERC Certificate No.	Date of Purchase	Name of Seller	Amount of ERC (lb/day)
VOC	AQ007877	03/27/08	Tenaska	348
VOC	AQ007879	03/27/08	Tenaska	64

CPV Sentinel has indicated that the required amounts of offsets will be provided prior to issuance of the Facility Permit. Compliance with offset requirements of Rules 1303(b)(2) is required prior to issuance of the Permits to Construct.

The maximum PM10 and SOx emissions occur during a commissioning year and are as follows:

	PM10 lb/yr	SOX lb/yr
Maximum pounds per year, includes commissioning period	118,120	13,928

For PM10 and SOx offset evaluation, please refer to Appendix N

AB1318 (California Health & Satety Code Section 40440.14)

AB1318 was enacted by the State Legislature on 9/11/09 and was signed into law by the Governor on 10/11/09 and became effective on 1/1/2010. The bill will add Section 3619.8 to, and to add and repeal 40440.14 of, the Health and Safety Code, and to amend Section 21080 of the Public Resource Code, relating the SCAQMD.

To be eligible for the emissions credits under AB1318 the electrical generating facility shall meet the requirements pursuant to Health & Safety Code Section 4040.14 (d) as shown in Table 25 below.

Table 25 -

AB1318	Compliance for CPV Sentinel Project
Subject to State Resources conservation and development commission permitting jurisdiction	Yes
Have a power purchase agreement prior to 12/31/2008 with a public utility in the LA basin	Yes
Be under jurisdiction the AQMD, but not located within the South Coast Air Basin	Yes, facility located in the Salton Sea air basin under AQMD jurisdiction
Can not transfer credits until mitigation fees are paid. The fees are set per Rule 1309.1 adopted on Aug 3, 2007	Applicant needs to pay the mitigation fee prior to the issuance of emissions credits, fee calculation in appendix L

Turbines 1 though 5 will pay mitigations fees per Rule 1309.1 (g)(1)(F)
Turbines 6 though 8 will be mitigations fees per Rule 1309.1 (g)(1)(B)

See Appendix L for fee determination under AB1318

Fuel limits

The facility's maximum monthly and annual fuel usage (caps) for the simultaneous operation of the 8 CTGs will be 3,400 mmscf and 19640 mmscf, respectively, based on operating condition 103. The annual fuel cap will be the basis for the facility's PTE. The monthly and annual fuel caps will correspond to 485 hours/month and 2803 hours/year of operation for each turbine. These values were selected by CPV Sentinel.

The fire pump engine will have hours per year limitations. The calculations are shown below and a monthly fuel cap (ref Appendix G) will be included on the Facility Permit as a permit condition.

Commissioning period
CTG fuel/turbine = 301 mmcf

Non commissioning period Turbines 1 through 8 (per turbine)

Monthly:
CTGFuel =(485 hr/mon) * 891.7 mmbtu/hr * 1ft3/1018 btu
CTG Fuel = 425 mmcf/month

Annually:
CTG Fuel =(2803 hr/yr) * 891.7 mmbtu/hr * 1ft3/1018 btu
CTGFuel= 2,455.24 mmcf/yr

Non commissioning period Turbines 1 through 8 (total)

Monthly:
CTGFuel = 425 mmcf/month * 8 turbines
CTG Fuel = 3400 mmcf/month

Annually:
CTG Fuel =2455.24 mmcf/yr * 8 turbines
CTGFuel= 19,642 mmcf/yr

RULES 1303(b)(3)-Sensitive Zone Requirements and 2005(e)-Trading Zone Restrictions
Both rules state that credits must be obtained from the appropriate trading zone. In the case of Rule 1303(b)(3), facilities located in the South Coast Air Basin are subject to the Sensitive Zone requirements specified in Health & Safety Code Section 40410.5. CPV Sentinel is located in the Coachella Valley and is therefore eligible to obtain its ERCs from either Zone 1 or Zone 2a. Similarly in the case of Rule 2005(e), CPV Sentinel, because of its location may obtain RTCs from either Zone 1 or Zone 2, at its choosing. Therefore upon providing the adequate amount of emissions reductions credits or RTCs compliance is expected with both rules.

RULE 1303(b)(4)-Facility Compliance

No change

RULE 1303(b)(5)-Major Polluting Facilities

Rule 1303(b)(5)(A) – Alternative Analysis
No change
Rule 1303(b)(5)(B) – Statewide Compliance
No change

Rule 1303(b)(5)(C) – Protection of Visibility
Modeling is required if the source is within a Class I area and the NOx and PM10 emissions exceed 40 TPY and 15TYP respectively. There are three Class I sites is located within the minimum distances to this facility. Modeling from plume visibility is required, however, the applicant has provided modeling impact data for the Class I areas and the data was reviewed by District's modeling staff and complies with this section of the Rule.

Rule 1303(b)(5)(D) – Compliance through CEQA
No change

Rule 1401 – New Source Review of Toxic Air Contaminants
This rule specifies limits for maximum individual cancer risk (MICR), acute hazard index (HIA), chronic hazard index (HIC) and cancer burden (CB) from new permit units, relocations, or modifications to existing permits which emit toxic air contaminants. Rule 1401 requirements are summarized as follows:

Table 22 – Rule 1401 Requirements

Parameters and Specifications	Rule 1401 Requirements
MICR, without T-BACT	$\leq 1x10^{-6}$
MICR, with T-BACT	$\leq 1x10^{-5}$
Acute Hazard Index	≤ 1.0
Chronic Hazard Index	≤ 1.0
Cancer Burden	≤ 0.5

The applicant performed a Tier 4 health risk assessment using the Hot Spots Analysis and Reporting Program (HARP, version 1.2a). The applicant used EPA ISCST3 model (version 99155) in their modeling analysis. (This is the version of ISCST3 used in HARP.) The analysis included an estimate of the MICR for the nearest residential and commercial receptors, the acute and chronic hazard indices for the entire facility. PRA modeling staff reviewed the applicant's methodology and procedures used, and re-ran the HARP model and verified the health risk and hazard indices which were presented by the applicant. PRA staff concluded that each of the health risk values for MICR, HIA and HIC were appropriately estimated (see memorandum in file, dated November 13, 2009 from MR. Naveen Berry to Mr. Mike Mills). Table 24 below is a summary of the modeled health risk assessment results (list largest MICR, HIA and HIC regardless of receptor location). The cancer burden is not calculated because the MICR is less than 1 x 10^{-6} for both residential and commercial receptors. See Appendix I for TAC emissions calculations.

Table 23 – Rule 1401 Modeled Results

Turbine 1

Risk Parameter	Cancer Risk	Rule 1401 Requirements	Compliance (Yes/No)
MICR	0.00514×10^{-06}	$\leq 1 \times 10^{-6}$	Yes
HIA	0.0147	≤ 1.0	Yes
HIC	0.00016	≤ 1.0	Yes
Receptor UTMs	539411E / 374511N		

Turbine 2

Risk Parameter	Cancer Risk	Rule 1401 Requirements	Compliance (Yes/No)
MICR	0.00509×10^{-06}	$\leq 1 \times 10^{-6}$	Yes
HIA	0.0148	≤ 1.0	Yes
HIC	0.00016	≤ 1.0	Yes
Receptor UTMs	539411E /3745100N		

Turbine 3

Risk Parameter	Cancer Risk	Rule 1401 Requirements	Compliance (Yes/No)
MICR	0.00505×10^{-06}	$\leq 1 \times 10^{-6}$	Yes
HIA	0.0149	≤ 1.0	Yes
HIC	0.00015	≤ 1.0	Yes
Receptor UTMs	539411E / 6745110N		

Turbine 4

Risk Parameter	Cancer Risk	Rule 1401 Requirements	Compliance (Yes/No)
MICR	$0.00504x\ 10^{-06}$	$\leq 1 \times 10^{-6}$	Yes
HIA	0.0148	≤ 1.0	Yes
HIC	0.00015	≤ 1.0	Yes
Receptor UTMs	537111E / 3758610N		

Turbine 5

Risk Parameter	Cancer Risk	Rule 1401 Requirements	Compliance (Yes/No)
MICR	0.00506×10^{-06}	$\leq 1 \times 10^{-6}$	Yes
HIA	0.0148	≤ 1.0	Yes
HIC	0.00015	≤ 1.0	Yes
Receptor UTMs	537211E / 3758510N		

Turbine 6

Risk Parameter	Cancer Risk	Rule 1401 Requirements	Compliance (Yes/No)
MICR	0.00512×10^{-06}	$\leq 1 \times 10^{-6}$	Yes
HIA	0.0146	≤ 1.0	Yes
HIC	0.00016	≤ 1.0	Yes
Receptor UTMs	537311E / 3758410N		

Turbine 7

Risk Parameter	Cancer Risk	Rule 1401 Requirements	Compliance (Yes/No)
MICR	0.0051×10^{-06}	$\leq 1 \times 10^{-6}$	Yes
HIA	0.0146	≤ 1.0	Yes
HIC	0.00016	≤ 1.0	Yes
Receptor UTMs	537311E / 3758510N		

Turbine 8

Risk Parameter	Cancer Risk	Rule 1401 Requirements	Compliance (Yes/No)
MICR	0.0509×10^{-06}	$\leq 1 \times 10^{-6}$	Yes
HIA	0.0147	≤ 1.0	Yes
HIC	0.00016	≤ 1.0	Yes
Receptor UTMs	537211E / 3758310N		

Table 24 shows that CPV Sentinel will comply with the applicable requirements of Rule 1401. The cancer burden is not computed because the highest MICR is less than 1×10^{-6}. The applicant use EPA ISCST3 (version 99155) in their modeling analysis (this is the version of ISCST3 used in HARP) The applicant performed the risk assessment with the Hot Spots Analysis and Reporting Program (HARP, version 1.3). Planning reviewed the See Appendix H for the actual TAC emissions.

The fire pump are exempt per section (i)(1)(A). The cancer risk was calculated for this equipment and is listed below for informational purposes only.

The peak cancer risks for the total project at all receptors is 0.5 in one million. The peak acute and chronic hazard indices for the total project are 0.1 and 0.008, respectively. These total facility risks are less than the Rule 1401 cancer and non-cancer permit limits of 10 in one million and hazard index of 1, respectively. Confirmed by District modeling staff, see memo dated 11/13/09

The combined risk for all the cooling towers is 0.00957 in a million

Fire pump engine risk is 0.4699 in a million

The total risk for all the turbines, one fire pump and cooling towers is 0.52016 in a million. The peak

The table below list the MICR/HIA/HIC at the residential and commercial receptor

Table 24 – Rule 1401 Modeled Results for nearest residential/commercial receptor

Source	Residential	Commercial	Residential	Commercial	Residential	Commercial
	MICR	MICR	HIC	HIC	HIA	HIA
Gas Turbine No. 1	5.44E-06	1.32E-04	3.02E-06	2.08E-05	1.30E-03	1.58E-03
Gas Turbine No. 2	9.47E-06	9.66E-05	3.67E-06	3.25E-05	1.14E-03	1.98E-03
Gas Turbine No. 3	1.82E-05	6.95E-05	3.73E-06	4.77E05	1.27E-03	2.26E-03
Gas Turbine No. 4	3.23E-05	5.31E-05	3.31E-06	6.27E-05	1.53E-03	2.36E-03
Gas Turbine No. 5	4.77E-05	4.79E-05	2.73E-06	7.14E-05	1.44E-03	2.25E-03
Gas Turbine No. 6	5.62E-05	4.52E-05	2.22E-06	7.14E-05	1.09E-03	1.96E-03
Gas Turbine No. 7	5.62E-05	4.09E-05	1.89E-06	6.29E-05	6.88E-04	1.64E-03
Gas Turbine No. 8	5.13E-05	3.82E-05	1.76E-06	5.03E-05	3.78E-04	1.67E-03
Total Project (includes turbines, fire pump, engine & cooling towers)	2.83E-01	5.15E-02	2.45E-03	7.03E-03	9.11E-03	1.64E-02

Location	30 meters of eastern fence	Devers substation	230 m east of the eastern fence	Wintec Wind farm	230 m east of the eastern fence	

RULE 1470-Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines.

No change, Fire pump complies with this Rule

RULE 1472- Requirements for Facilities with Multiple Stationary Emergency Standby Diesel-Fueled Internal engines

No change

Rule 2005(g) – Additional Requirements

No change

Rule 2005(h) – Public Notice

No change

Rule 2005(i) – Rule 1401 Compliance.
CPV Sentinel will comply with Rule 1401 as demonstrated in the Tier 4 analysis and subsequently reviewed and found to be satisfactory by AQMD modeling staff. Compliance is expected.

Rule 2005(j) – Compliance with State and Federal NSR.

No change

Rule 2005 – Fire pump

No change

Tier 3 engines are available, the applicant proposes to install a Tier 3 engine, the NOx+VOC are below the 3 g/bhp-hr limits, see appendix D

RTCs- Rule 2012(e)(2)(C)

BACT limit = 3 g/bhp-hr
Fuel rate = 13.5 gal/hr

EF = 3 g/bhp-hr *(1 lb/454 g) * (1 hr/ 13.5 gal) * (1000 gal/M gal) *274 HP
EF = 134 lb/mgal

Rule 2012 – RECLAIM, Monitoring Recording and Recordkeeping Requirements

No change

REGULATION XVII-Prevention of Significant Deterioration

The applicant estimated the emissions from the proposed project for NO_2, CO, PM_{10}, and SO_2. The emission summary is Appendix C. Rule 1702 (m) (1) states that a major stationary source includes steam electric plants of more than 250 MMBTU/hr heat input. Although this facility will have a heat input of greater than 250 MMBTU/hr, it only produces electric power through mechanical means and not through a steam process as defined under subsection (1) of the rule. Therefore, the proposed simple cycle units are subject to subsection (2) which places the Major Stationary Source threshold on emissions of 250 tons per year or more. The maximum NOx potential to emit for these 8 turbines is 143 tons per year, and the maximum CO potential to emit for these 8 turbines is 188 tons per year. Therefore, this project is not considered a Major Stationary Source and is not subject to the rule 1703 NOx and CO PSD analysis. Rule 1701 (b)(1) requires CO BACT be applied to the Turbines. The turbines will be vented to CO control and the CO emissions will be limited to 4 ppmv (permit condition).

INTERIM PERIOD EMISSION FACTORS

RECLAIM requires a NOx emission factor to be used for reporting emissions during the interim reporting period. The interim period is defined as a period, of no greater than 12 months from initial operation, when the CEMS has not been certified. During this period, the emissions cannot be accurately, monitored, or verified. The emissions during this period are assumed to be at uncontrolled levels. The interim reporting period can be broken down into the two parts which includes the commissioning period in which an uncontrolled emission rate is assumed. The emission factor for the commissioning period is an average of for the entire 150 hour period. During this period, the turbines may be uncontrolled, partially controlled, or 100 percent controlled. The remaining interim reporting period at which controlled rates at BACT are assumed.

Since CPV Sentinel will be included in NOx RECLAIM, an interim period emission factor will be determined. In the event CEMS data is not available, NOx emissions during the interim period will be calculated using monthly fuel usage and the emission factors derived below. There will be two interim period emission factors calculated for NOx.

The first factor will be for use during commissioning stage when the CTGs are assumed to be operating at uncontrolled levels and the second factor will be for use after commissioning is complete and the CTGs are assumed to operate at BACT levels. The specific calculations are shown in Appendix G and the results are shown in the tables below.

Commissioning Period

Pollutants	NOx	CO
Total emissions (lbs)	5728	11602
Total Fuel (mmscf)	301.48	301.48
Emission Factor (lb/mmscf)	**19.0**	**38.48**

Remaining Period (Non-Commissioning start-up)

Pollutants	NOx	CO
Total emissions (lbs)	240881	282475
Total Fuel (mmscf)	19642	19642
Emission Factor (lb/mmscf)	**12.26**	**14.38**

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

No change

NSPS for Stationary Gas Turbines - 40CFR Part 60 Subpart KKKK

No change

NESHAPS for Stationary Gas Turbines - 40CFR Part 63 Subpart YYYY

This regulation applies to gas turbines located at major sources of HAP emissions. A major source is defined as a facility with emissions of 10 tpy or more of a single HAP or 25 tpy or more of a combination of HAPs. The largest single HAP emission from the turbine or engine is formaldehyde from the turbine at 900 lbs/yr, or 0.45 tpy. The total combined HAPs from both sources at CPV Sentinel are less than 25 tpy (reference Appendix I). Therefore, the CPV Sentinel facility is not a major source, and the requirements of this regulation do not apply. Ammonia is not defined as an HAP pollutant per this Rule.

EPA has indicated there are NESHAPS for area sources dated 3/5/2009 (40 CFR Part 63). Per table 2 of the Rule (pg 9703), the fire pump is listed between 50 and 500 HP, the following is required:

- Change oil and oil filter every 500 hours of operation
- Inspect air cleaner every 1000 hours
- Inspect all hoses and belts every 500 hours of operation

40 CFR Part 64 – Compliance Assurance Monitoring

The CAM regulation applies to emission units at major stationary sources required to obtain a Title V permit, which use control equipment to achieve a specified emission limit. The rule is intended to provide "reasonable assurance" that the control systems are operating properly to maintain compliance with the emission limits. Based on the emission calculations shown in Appendix ~~K~~, the CPV Sentinel facility is a major source of NOx, CO, VOC, and PM10, and the turbines will be subject to an emission limit for each of these pollutants.

NOx

- Emission Limit – NOx is subject to a 2.5 ppm 1 hour BACT limit.
- Control Equipment – NOx is controlled with the SCR
- ✓ Requirement - As a NOx Major Source under Reclaim, the turbines are required to have CEMS under Rule 2012. The use of a continuous monitor to show compliance with an emission limit is exempt from CAM under 64.2(b)(vi).

CO

- Emission Limit – CO is subject to a 4.0 ppm 1 hour BACT limit (revised CO BACT limit).
- Control Equipment – CO is controlled with the oxidation catalyst.
- ✓ Requirement – The turbines will be required to use a CO CEMS under Rule 218. The use of a continuous monitor to show compliance with an emission limit is exempt from CAM under 64.2(b)(vi).

VOC

- Emission Limit – VOC is subject to a 2.0 ppm 1 hour BACT limit.
- Control Equipment – VOC is controlled with the oxidation catalyst.
- Uncontrolled emissions-R1 emissions per turbine s 8 tons/yr (see Appendix K)

- The CAM rule applies to each pollutant specific emission units (PSEU) that meets a three-part test. The PSEU must:

  a. be subject to an emission limitation or standard, and
  b. use a control device to achieve compliance, and
  c. have pre-control emissions that exceed or are equivalent to the major source threshold.

  VOC emissions are subject to an emissions limit (2 ppmv)
  The oxidation catalyst will be used to reduce the R1 emissions below the compliance emissions limit The pre-control emissions does not exceed the 10 tons per year emissions threshold per turbine. Thus the CAM requirements for VOC does not apply for this equipment.

- ✓ Requirement – The oxidation catalyst is effective at operating temperatures above 300°F. The facility is required to maintain a temperature gauge in the exhaust (condition D12.3), which will measure the exhaust temperature on a continuous basis and record the readings on an hourly basis. The exhaust temperature is required to be at least 700°F, (with exceptions for start ups and shutdowns). This will insure that the oxidation catalyst is operating properly.

PM10

- Emission Limit – PM10 is subject to a 5 lbs/hr limit. Also an annual emissions limit based on a 12 month rolling average for PM10 and SOx, see permit condition no. A63.2
- Control Equipment – PM10 is not controlled by any specific control device.
- ✓ Requirement – Since there is no specific control device for PM10 emissions, there are no CAM requirements.

40CFR Part 72 – Acid Rain Provisions

No change

Federal NSR program for PM 2.5, PSD and 40CFR Part 51 Appendix S

The proposed facility is located in the Coachella Valley which is part of the Salton Sea Air Basin (SSAB). The SSAB is in attainment with the National Ambient Air Quality Standard for PM 2.5, and therefore the project is not subject to Non-Attainment NSR requirements such as offsets for PM2.5.

The applications were deemed complete prior to 07/15/08 and the Facility is located in attainment area. This project is not subject to Appendix S requirements.

The total PM2.5 emissions (assuming all PM10 emissions are PM2.5) is 56 tons per year is well below the 100 ton/yr PSD threshold, and therefore it is not subject to the PSD.

REGULATION XXX – Title V

There is a net decrease in emissions (see Rule 212 section) from the draft Title V permit sent to EPA on May 7, 2009. There is not relaxation of any permit permit conditions. The CO BACT limit has been reduced to 4 ppmv.

OVERALL EVALUATION / RECOMMENDATION(S)

Issue a Facility Permit to Construct with the following permit conditions.

PERMIT CONDITIONS

Facility Permit 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, 11-09-2001]

F14.1

The operator shall maintain a copy of the MSDS on site
[Rule 431.2]

(LMS100PA CTGs) Devices D1,D7,D13,D19,D25, D31, D37 and D43

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

CONTAMINANT	EMISSION LIMIT
PM_{10}	2,425 LBS IN ANY ONE MONTH
CO	6,477 LBS IN ANY ONE MONTH
SOx	293 LBS IN ANY ONE MONTH
VOC	1432 LBS IN ANY ONE MONTH

The above emissions are per one turbine. The operator shall calculate the monthly emissions for VOC, PM10 and SOx using the equation below and the following emission factors: VOC: 2.52 lb/mmcf; PM10: 5.71 lb/mmcf; and SOx: 0.71 lb/mmcf.

Monthly Emissions, lb/month = X (E.F.)

Where X = monthly fuel usage in mmscf/month and E.F. = emission factor indicated above.

Compliance with the CO emission limit shall be verified through valid CEMS data.

The operator shall calculate the emission limit(s) for the purpose of determining compliance with the monthly CO limit in the absence of valid CEMS data by using the above equation and the following emission factor(s):

(A) During the commissioning period and prior to CO catalyst installation – 38.48 lbs CO/mmcf

(B) After installation of the CO catalyst but prior to CO CEMS certification testing – 14.38 lb CO/mmcf. The emission rate shall be recalculated in accordance with Condition D82.1 if the approved CEMS certification test resulted in emission concentration higher than 4 ppmv.

(C) After CO CEMS certification testing – 14.38 lb/CO mmcf. After CO CEMS certification test is approved by the AQMD, the emissions monitored by the CEMS and calculated in accordance with condition D82.1 shall be used to calculate emissions.

For the purposes of this condition, the limit(s) shall be based on the emissions from a single turbine. During commissioning, the CO emissions shall not exceed 11,602 lbs

in any one month. During commissioning, the VOC emissions shall not exceed 620 lbs in any one month.

The operator shall provide the AQMD with written notification of the date of initial CO catalyst use within seven (7) days of this event.

For the purpose of this condition the turbine shall not commence with normal operation until the commissioning process has been completed. The District shall be notified in writing once the commissioning process has been completed. Normal operations may proceed in the same commissioning month provided the operator follows the requirements listed below.

The operator shall calculate the commissioning emissions for VOC, SOx and PM10 for the commissioning month (beginning of the month to the last day of commissioning) using the equation below and the following emission factors: VOC: 2.06 lb/mmcf; PM10: 2.49 lb/mmcf; and SOx: 0.12 lb/mmcf.

Commissioning Emissions, lb/month = X (E.F.)

Where X = commissioning fuel usage in mmscf/month and E.F. = emission factor indicated above.

The commissioning emissions for VOC, SOx and PM10 shall be subtracted from the monthly emissions limits (listed in the table at the top of this condition) and the revised monthly emission limits will be the maximum emissions allowed for the remaining of the month.

For the purpose of this condition, normal operations is defined as the turbine is able to supply electrical energy to the power grid as required under contract with SCE or other entity.
[Rule 1303 – Offsets]
Turbines 1-5

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

CONTAMINANT	EMISSION LIMIT
PM_{10}	118,120 LBS IN ANY ONE YEAR
SOx	13,928 LBS IN ANY ONE YEAR

For the purposes of this condition, the annual limit(s) shall be calculated by using annual and monthly fuel use data, and the following emission factors: PM_{10} 5.71 lb/MMSCF; and SOx: 0.25 grains/100 scf.

For the purpose of this condition, the yearly emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12 month period beginning on the first day of each calendar month.
[Rule 1303 – Offsets, 40CFR 51 subpart S]

A99.1 The 2.5 PPM NOx emission limits shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 150 hours. Start-up time shall not exceed 25 minutes for each start-up. Shutdown periods shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 300 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

For this condition start-up shall be defined as the start up process to bring the turbine in full successful operations. If during start-up the process is aborted and the start-up is restarted, then the start-up and restart is defined as "one start-up".

In this case the start-up time shall not exceed one hour. The NOx emissions limited to 29.54 pounds per hour as listed in condition A433.1

The operator shall keep records of aborted turbine start-ups and make the records available to District personnel upon request.

[Rule 2005]
Turbine 1 through 8

A99.3 The 4.0 PPM CO emission limits shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 150 hours. Start-up time shall not exceed 25 minutes for each start-up. Shutdown periods shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 300 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

For this condition start-up shall be defined as the start up process to bring the turbine in full successful operations. If during start-up the process is aborted and the start-up is restarted, then the start-up and restart is defined as "one start-up". In this case the start-up time shall not exceed one hour.
[Rule 1303(a) – BACT]
Turbine 1 through 8

A99.5 The 19 LBS/MMCF NOx emission limits shall only apply during the interim reporting period during initial turbine commissioning to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.
[Rule 2012 – Requirements for Monitoring, Reporting and Recordkeeping for Oxides of Nitrogen Emissions]
Each Turbine

A99.7 The 12.26 LBS/MMCF NOx emission limits shall only apply during the interim reporting period after initial turbine commissioning to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.
[Rule 2012 – Requirements for Monitoring, Reporting and Recordkeeping for Oxides of Nitrogen Emissions]
Each turbine

A99.9 The 2.0 PPM VOC emission limits shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 150 hours. Start-up time shall not exceed 25 minutes for each start-up. Shutdown periods shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 300 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

For this condition start-up shall be defined as the start up process to bring the turbine in full successful operations. If during start-up the process is aborted and the start-up is restarted, then the start-up and restart is defined as "one start-up". In this case the start-up time shall not exceed one hour.
[Rule 1303(a) – BACT]
Turbine 1 through 8

A195.1 The 4.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.
[Rule 1703(a)(2)– PSD-BACT]
Each Turbine

A195.2 The 2.5 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.
[*Rule 2005, Rule 1703(a)(2)- PSD-BACT]*
Each Turbine

A195.3 The 2.0 ppmv VOC emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.
[Rule 1303(a) - BACT]
Each Turbine

A327.1 For the purpose of determining compliance with District Rule 475, combustion contaminants emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.
[Rule 475]
Each Turbine

A433.1 The operator shall comply at all times with the 2.5 ppm 1-hour BACT limit for NOx, except as defined in condition A99.1 and for the following scenario:

Operating Scenario	Maximum Hourly Emission Limit	Operational Limit
Start-up hour	29.54lb/hr	NOx emissions not to exceed 29.54lbs total per start-up per turbine. Each turbine shall be limited to 300 start-ups per year, with each start-up not to exceed 25 minutes.

[Rule 1703(a)(2)-PSD-BACT, Rule 2005]
Turbine 1 through 8

B61.1 The operator shall not use natural gas containing the following specified compounds:

Compound	Grains per 100 scf
H2S	Less than 0.25

This concentration limit is an annual average based on monthly sample of natural gas composition or gas supplier documentation. Gaseous fuel samples shall be tested using District Method 307-91 for total sulfur calculated as H2S.
[Rule 1303(b) - Offset]
Each Turbine

C1.1 The operator shall limit the fuel usage to no more than 425 mmcf in any one calendar month.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine during a non-commissioning month.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.
[Rule 1303(b)(2) - Offset]
For turbines 1 -8

C1.3 The operator shall limit the fuel usage to no more than 301 mmcf.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine during a commissioning period. The max fuel usage shall not exceed 301 mmcf per month.

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

[Rule 1303(b)(2) – Offset]

Each Turbine

C1.6 The operator shall limit the fuel usage to no more than 2455 mmcf in any one calendar year.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine during a non-commissioning year.

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

[Rule 1401, Rule Rule 1701 (b)]

For turbines 1 -8

D12.1 The operator shall install and maintain a(n) flow meter to accurately indicate the fuel usage being supplied to the turbine.

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

[Rule 1303(b)(2) – Offset, Rule 2012]

Each Turbine

D29.1 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	District Method 100.1	1 hour	Outlet of the SCR
CO emissions	District Method 100.1	1 hour	Outlet of the SCR
SOX emissions	AQMD Laboratory Method 307-91	Not applicable	Fuel Sample
VOC emissions	District Method 25.3	1 hour	Outlet of the SCR
PM10 emissions	District Method 5	4 Hours	Outlet of the SCR
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR

The test shall be conducted after AQMD approval of the source test protocol, but no later the later of 180 days after initial start-up or three hundred hours of operations after 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, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 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.

The test shall be conducted when this equipment is operating at maximum, average, and minimum loads.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F.

The use of this alternative method for VOC compliance determination 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 calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

For the purpose of this condition, alternative test method may be allowed for each of the above pollutants upon concurrence of AQMD,EPA and CARB.
[Rule 1303(a)(1) - BACT, Rule 1303(b)(2) - Offset, Rule 2005, Reg 1703(a-PSD-BACT]
Each Turbine

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

Pollutant 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

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.

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

The test shall be conducted to demonstrate compliance with the Rule 1303 BACT concentration limit
[Rule 1303(a)(1) - BACT]
Each Turbine

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

Pollutant 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
PM10 emissions	District Method 5	4 hours	Outlet of the SCR

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

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, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 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.

The test shall be conducted when this equipment is operating at maximum, average, and minimum load.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F.

The use of this alternative method for VOC compliance determination 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 calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

For the purpose of this condition, alternative test method may be allowed for each of the above pollutants upon concurrence of AQMD, EPA and CARB.
[Rule 1303(a)(1) - BACT, Rule 1303(b)(2) - Offset, Reg 1703(a-PSD-BACT]
Each Turbine

D82.1 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 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 shall be installed and operated to measure CO concentrations over a 15 minute averaging time period.

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

CO Emission Rate, lbs/hr = K Cco Fd[20.9% - %O2 d)][(Qg * HHV)/10^6], where

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

Cco = Average of four consecutive 15 min. ave. CO concentration, ppm

Fd = 8710 dscf/MMBTU natural gas

$\%O_2$ d = Hourly ave. % by vol. O_2 dry, corresponding to Cco

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

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

[Rule 1303(a)(1) – BACT, Rule 218]

Each Turbine

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.

The CEMS shall be installed and operating no later than 90 days after initial start-up of the turbine 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 start-up date, the operator shall provide written notification to the District of the exact date of start-up.

The CEMS shall be installed and operating (for BACT purposes only) no later than 90 days after initial start up of the turbine.

[Rule 2005; Rule 2012, Rule 1703]

Each Turbine

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 the final California Energy Commission decision for the 07-AFC-3 project.

[CEQA]

H23.1 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]
Each turbine

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

To comply with this condition, the operator shall prior to the 1st compliance year hold a minimum NOx RTCs of 35838 lbs/yr. This condition shall apply during the 1st 12 months of operation, commencing with the initial operation of the gas turbine.

To comply with this condition, the operator shall, prior to the beginning of all years subsequent to the 1st compliance year, hold a minimum of 30,110 lbs/yr of NOx RTCs for operation of the gas turbine.

In accordance with Rule 2005(f), unused RTC's may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the 1st compliance year.

This condition shall apply to each turbine individually.
[Rule 2005]
Turbines 1 though 8

K40.1 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 (lb/hr), and lb/MMCF. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains/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),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, Rule 1303(b)(2) – Offset, Rule 1702(a)(2)-PSD-BACT, Rule 2005]
Each Turbine

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

Natural gas fuel use after CEMS certification
Natural gas fuel use during the commissioning period
Natural gas fuel use after the commissioning period and prior to CEMS certification
[Rule 2012]
Each Turbine

(SCR/CO Catalyst)

A195.4 The 5 ppmv NH3 emission limit is averaged over 60 minutes at 15% O2, dry basis. The operator shall calculate and continuously record the NH3 slip concentration using the following:

NH3 (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]

D12.2 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

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 twelve months. The records shall be kept on site and made available to AQMD personnel upon request
The ammonia injection system shall be placed in full operation as soon as the minimum temperature is reached. The minimum temperature is listed as 540 degrees F. at the inlet to the SCR reactor.
[Rule 1303(a)(1) - BACT, Rule 2005]

D12.3 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 twelve months.
The catalyst temperature range shall be remain between 740 degree F and 840 degree F.
The catalyst inlet temperature shall not exceed 840 degrees F.
The temperature range requirement of this condition does not apply during start-up operations of the turbine not to exceed 25 minutes per start-up.

For this condition start-up shall be defined as the start up process to bring the turbine in full successful operations. If during start-up the process is aborted and the start-up is restarted, then the start-up and restart is defined as "one start-up". In this case the start-up time shall not exceed one hour.
[Rule 1303(a)(1) - BACT, Rule 2005, 1702 (a)(2)-PSD-BACT]

D12.4 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.

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 twelve months.
The pressure drop across the catalyst shall not exceed 12 inches water column
[Rule 1303(a)(1) - BACT, Rule 2005, Rule 1702 (a)(2)-PSD-BACT]

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 based upon the average of the continuous monitoring for that hour.

Condition Number D12.2
Condition Number D12.3
[Rule 1303(a)(1) - BACT, Rule 2005-BACT, Rule 1702(a)(2)-PSD-BACT]

E179.2 For the purpose of the following condition numbers, continuously record shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month.

Condition Number: D12.4
[Rule 1303(a)(1) - BACT, Rule 1702(a)(2)-PSD-BACT]

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 the final California Energy Commission decision for the 07-AFC-3 project.
[CEQA]

(Ammonia Storage Tank)

C157.1 The operator shall install and maintain a pressure relief valve with a minimum pressure set at 25 psig.
[Rule 1303(a)(1) - BACT]

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]

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 the final California Energy Commission decision for the 07-AFC-3 project.
[CEQA]

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

The operator shall document an inspection each time the tank is filled to insure the vapor recovery equipment is consistently and properly used
[Rule 1303(a)(1) - BACT]

(Emergency Fire Pump)

C1.4 The operator shall limit the operating time to no more than 50 hours in any one year.

For the purposes of this condition, the operating time is inclusive of time allotted for maintenance and testing
[Rule 1110.2, Rule 1304,Rule 1470, Rule 2012]

D12.5 The operator shall install and maintain a(n) non-resettable elapsed meter to accurately indicate the elapsed operating time of the engine.

[Rule 1304, Rule 1470, Rule 2012]

B61.2 The operator shall only use diesel fuel containing the following specified compounds:

COMPOUND	Range	PPM BY WEIGHT
Sulfur	Less than or equal to	15

The operator shall maintain a copy of the MSDS on site
[Rule 431.2]

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 the final California Energy Commission decision for the 07-AFC-3 project.

I296.3 This equipment shall not be operated unless the operator demonstrates to the Executive Officer the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.

To comply with this condition, the operator shall, prior to each compliance year hold a minimum NOx RTCs of 77 lbs.

In accordance with Rule 2005(f), unused RTCs may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the 1st compliance year.
[Rule 2005]

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

Manual and automatic operation and shall list all engine operations in each of the following areas:

Emergency use hours of operation

Maintenance and testing hours

Other operating hours (describe the reason for operation)

In addition, 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 five calendar years prior to the current year and 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, Rule 1470]

(Section D; Device E54)

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

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.

For architectural applications where no thinners, reducers, or other VOC containing materials are added, maintain semi-annual records 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.

CPV SENTINEL ENERGY PROJECT
List of Appendices

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   - Normal Operations
   - Start-up Emissions
   - Shutdown Emissions
2. Appendix B – LMS100PA Monthly Emissions
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   - Non-Commissioning year
   - 30-Day Averages (Commissioning year)
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3. Appendix C – LMS100PA Annual Emissions
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8. Appendix H – Interim Period Emission Factors
9. Appendix I – TAC Emissions
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12. Appendix L- AB1318 Mitigation fees and AB1318 Offset Report
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14. Appendix N-Offset Evaluation Section

FACILITY PERMIT TO OPERATE

CPV SENTINEL LLC
62575 POWER LINE RD
DESERT HOT SPRINGS, CA 92240

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
CPV SENTINEL LLC

TABLE OF CONTENTS

FACILITY PERMIT TO OPERATE
CPV SENTINEL LLC

SECTION A: FACILITY INFORMATION

LEGAL OWNER &/OR OPERATOR:	CPV SENTINEL LLC
LEGAL OPERATOR (if different than owner):	
EQUIPMENT LOCATION:	62575 POWER LINE RD DESERT HOT SPRINGS, CA 92240
MAILING ADDRESS:	55 SECOND ST STE 525 SAN FRANCISCO, CA 94105
RESPONSIBLE OFFICIAL:	MARK TURNER
TITLE:	PROJECT MANAGER
TELEPHONE NUMBER:	(415) 293-1463
CONTACT PERSON:	MARK TURNER
TITLE:	PROJECT MANAGER
TELEPHONE NUMBER:	(415) 293-1463
INITIAL TITLE V PERMIT ISSUED:	March 02, 2010
TITLE V PERMIT EXPIRATION DATE:	March 01, 2015

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

FACILITY PERMIT TO OPERATE
CPV SENTINEL LLC

SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION

NOT APPLICABLE

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SECTION C: FACILITY PLOT PLAN

(TO BE DEVELOPED)

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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
Process 3: RULE 219 EXEMPT EQUIPMENT SUBJECT TO SOURCE SPECIFIC RULES					
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E54	C3		**VOC**: (9) [**RULE 1113, 11-8-1996;** *RULE 1113, 7-13-2007;* **RULE 1171, 11-7-2003;** *RULE 1171, 2-1-2008*]	K67.5
RULE 219 EXEMPT EQUIPMENT, EXEMPT HAND WIPING OPERATIONS	E55	C3		**VOC**: (9) [**RULE 1171, 11-7-2003;** *RULE 1171, 2-1-2008*]	

* (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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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
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SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	**Section D Page No.**	**Process**	**System**
E54	1	3	0
E55	1	3	0

FACILITY PERMIT TO OPERATE
CPV SENTINEL LLC

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 purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

The operator shall maintain a copy of the MSDS on site

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

DEVICE CONDITIONS

K. Record Keeping/Reporting

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

FACILITY PERMIT TO OPERATE
CPV SENTINEL LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

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 1113, 11-8-1996;** RULE 1113, 7-13-2007]

[Devices subject to this condition : E54]

FACILITY PERMIT TO OPERATE
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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 statues 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
CPV SENTINEL LLC

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 five years. [204]

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]

   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 non-combustion sources, compliance with emission limits shall be determined and averaged over a period of 60 minutes; [204]

   d. 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 (SO2) and be averaged over 15 consecutive minutes; [407]

   e. For the purpose of determining compliance with Rule 409, combustion contaminant emission measurements shall be corrected to 12 percent of carbon dioxide (CO2) at standard conditions and averaged over a minimum of 15 consecutive minutes. [409]

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SECTION E: ADMINISTRATIVE CONDITIONS

f. For the purpose of determining compliance with Rule 475, combustion contaminant emission measurements shall be corrected to 3 percent of oxygen (O2) at standard conditions and averaged over 15 consecutive minutes or any other averaging time specified by the Executive Officer. [475]

8. 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.

b. Brief process description, including maximum and normal operating temperatures, pressures, throughput, 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 and 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 (conflict of interest).

9. 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.

FACILITY PERMIT TO OPERATE
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SECTION E: ADMINISTRATIVE CONDITIONS

b. Brief description of the equipment tested.

c. Operating conditions under which the test was 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 and 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.

f. Calculations for volumetric flow rates, emission rates, control efficiency, and overall control efficiency.

10. 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]

11. 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
CPV SENTINEL LLC

SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS

NOT APPLICABLE

FACILITY PERMIT TO OPERATE
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SECTION G: RECORDKEEPING AND REPORTING REQUIREMENTS FOR RECLAIM SOURCES

NOT APPLICABLE

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

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

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES, POWER GENERATION					

* (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
CPV SENTINEL LLC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, CTG-1, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH A/N:	D1	C3	NOX: MAJOR SOURCE**	**CO**: 4 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**: 2.5 PPMV NATURAL GAS (4) [**RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 4-20-2001**]; **NOX**: 12.26 LBS/MMSCF (1) [**RULE 2012, 5-6-2005**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK, 7-6-2006**]; **NOX**: 19 LBS/MMSCF NATURAL GAS (1) [**RULE 2012, 5-6-2005**]; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5A) [**RULE 475, 10-8-1976;** *RULE 475, 8-7-1978*]; **PM10**: 0.1 GRAINS/SCF NATURAL GAS (5) [**RULE 409, 8-7-1981**]; **PM10**: 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**: 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)*	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9, A195.1, A195.2, A195.3, A327.1, A433.1, B61.1, C1.1, C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

* (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
CPV SENTINEL LLC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GENERATOR, 103 MW				*-BACT, 12-6-2002*]	
CO OXIDATION CATALYST, NO. 1, BASF, WITH 150 CUBIC FEET OF TOTAL CATALYST VOLUME. A/N:	C3	D1 C4 E54 E55			
SELECTIVE CATALYTIC REDUCTION, NO. 1, CORMETECH CHMT-2, 812 CU.FT.; WIDTH: 2 FT 2 IN; HEIGHT: 4 FT 2 IN; LENGTH: 10 FT 11 IN WITH A/N: AMMONIA INJECTION, GRID	C4	C3 S6		**NH3**: 5 PPMV NATURAL GAS (4) [**RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E179.3, E193.1
STACK, NO. 1, HEIGHT: 90 FT ; DIAMETER: 13 FT 6 IN A/N:	S6	C4			

* (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
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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
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, CTG-2, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 861.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH A/N:	D7	C9	NOX: MAJOR SOURCE**	**CO**: 4 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**: 2.5 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]; **NOX**: 12.26 LBS/MMSCF (1) [**RULE 2012, 5-6-2005**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK, 7-6-2006**]; **NOX**: 19 LBS/MMSCF NATURAL GAS (1) [**RULE 2012, 5-6-2005**]; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5A) [**RULE 475, 10-8-1976;** *RULE 475, 8-7-1978*]; **PM10**: 0.1 GRAINS/SCF NATURAL GAS (5) [**RULE 409, 8-7-1981**]; **PM10**: 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**: 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)*	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9, A195.1, A195.3, A327.1, A433.1, B61.1, C1.1, C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, I296.1, K40.1, K67.1

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

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

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GENERATOR, 103 MW				*-BACT, 12-6-2002*]	
CO OXIDATION CATALYST, NO. 2, BASF, WITH 150 CUBIC FEET OF TOTAL CATALYST VOLUME. A/N:	C9	D7 C10			
SELECTIVE CATALYTIC REDUCTION, NO. 2, CORMETECH CHMT-2, 812 CU.FT.; WIDTH: 2 FT 2 IN; HEIGHT: 4 FT 2 IN; LENGTH: 10 FT 11 IN WITH A/N: AMMONIA INJECTION, GRID	C10	C9 S12		**NH3**: 5 PPMV NATURAL GAS (4) [**RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E179.3, E193.1
STACK, NO. 2, HEIGHT: 90 FT ; DIAMETER: 13 FT 6 IN A/N:	S12	C10			

* (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
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 3, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH A/N: GENERATOR, 103 MW	D13	C15	NOX: MAJOR SOURCE**	**CO**: 4 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; **CO**: 20000 PPMV NATURAL GAS (5) [**RULE 407, 4-2-1982**]; **NOX**: 2.5 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012, 5-6-2005**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK, 7-6-2006**]; **NOX**: 19 LBS/MMSCF (1) [**RULE 2012, 5-6-2005**]; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5A) [**RULE 475, 10-8-1976;** *RULE 475, 8-7-1978*]; **PM10**: 0.1 GRAINS/SCF NATURAL GAS (5) [**RULE 409, 8-7-1981**]; **SO2**: (8) [**40CFR 72 - Acid Rain Provisions, 11-24-1997**]; **SOX**: 0.06 LBS/MMSCF 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) -BACT, 12-6-2002*]	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9, A195.1, A195.2, A195.3, A327.1, A433.1, B61.1, C1.1, C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

* (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
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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
Process 1: INTERNAL COMBUSTION					
CO OXIDATION CATALYST, NO. 3, BASF, WITH 150 CUBIC FEET OF TOTAL CATALYST VOLUME. A/N:	C15	D13 C16			
SELECTIVE CATALYTIC REDUCTION, NO.3, CORMETECH CHMT-2, 812 CU.FT.; WIDTH: 2 FT 2 IN; HEIGHT: 4 FT 2 IN; LENGTH: 10 FT 11 IN WITH A/N: AMMONIA INJECTION, GRID	C16	C15 S18 C28		**NH3**: 5 PPMV NATURAL GAS (4) [**RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E179.3, E193.1
STACK, NO. 3, HEIGHT: 90 FT ; DIAMETER: 13 FT 6 IN A/N:	S18	C16			

* (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
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 4, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH A/N: GENERATOR, 103 MW	D19	C21	NOX: MAJOR SOURCE**	**CO**: 4 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; **CO**: 2000 PPMV NATURAL GAS (5) [**RULE 409, 8-7-1981**]; **NOX**: 2.5 PPMV (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012, 5-6-2005**]; **NOX**: 15 PPMV (8) [**40CFR 60 Subpart KKKK, 7-6-2006**]; **NOX**: 19 LBS/MMSCF (1) ; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5B) [**RULE 475, 10-8-1976;** *RULE 475, 8-7-1978*]; **SO2**: (9) [**40CFR 72 - Acid Rain Provisions, 11-24-1997**]; **SOX**: 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) -BACT, 12-6-2002*]	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9, A195.1, A195.2, A195.3, A433.1, B61.1, C1.1, C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K67.1
CO OXIDATION CATALYST, NO. 4, BASF, WITH 150 CUBIC FEET OF TOTAL CATALYST VOLUME. A/N:	C21	D19 C22			

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

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

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NO.4, CORMETCH CHMT-2, 812 CU.FT.; WIDTH: 2 FT 2 IN; HEIGHT: 4 FT 2 IN; LENGTH: 10 FT 11 IN WITH A/N: AMMONIA INJECTION, GRID	C22	C21 S24		**NH3**: 5 PPMV NATURAL GAS (4) [**RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E179.3, E193.1
STACK, NO. 4, HEIGHT: 90 FT ; DIAMETER: 13 FT 6 IN A/N:	S24	C22			

* (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
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 5, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH A/N: GENERATOR, 103 MW	D25	C27	NOX: MAJOR SOURCE**	**CO**: 4 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; **CO**: 2000 PPMM NATURAL GAS (5) [**RULE 407, 4-2-1982**]; **NOX**: 2.5 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012, 5-6-2005**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK, 7-6-2006**]; **NOX**: 19 LBS/MMSCF (1) [**RULE 2012, 5-6-2005**]; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5C) [**RULE 475, 10-8-1976;** *RULE 475, 8-7-1978*]; **SO2**: (8) [**40CFR 72 - Acid Rain Provisions, 11-24-1997**]; **SOX**: 0.06 LBS/MMBTU NATURAL GAS (8) [**40CFR 60 Subpart KKKK, 7-6-2006**]; **VOC**: 2 PPMM NATURAL GAS (4) [**RULE 1303(a)(1)-BACT, 5-10-1996;** *RULE 1303(a)(1) -BACT, 12-6-2002*]	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9, A195.1, A195.2, A195.3, A327.1, A433.1, B61.1, C1.1, C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

* (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.)
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
CO OXIDATION CATALYST, NO.5, BASF, WITH 150 CUBIC FEET OF TOTAL CATALYST VOLUME. A/N:	C27	D25 C28			
SELECTIVE CATALYTIC REDUCTION, NO.5, CORMETECH CHMT-2, 812 CU.FT.; WIDTH: 2 FT 2 IN; HEIGHT: 4 FT 2 IN; LENGTH: 10 FT 11 IN WITH A/N: AMMONIA INJECTION, GRID	C28	B17 C27 S30		**NH3**: 5 PPMV NATURAL GAS (4) [**RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E179.3, E193.1
STACK, NO. 5, HEIGHT: 90 FT ; DIAMETER: 13 FT 6 IN A/N:	S30	C28			

* (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.)
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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
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 6, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH A/N: GENERATOR, 103 MW	D31	C33	NOX: MAJOR SOURCE**	**CO**: 4 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**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012, 5-6-2005**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK, 7-6-2006**]; **NOX**: 19 LBS/MMSCF (1) [**RULE 2012, 5-6-2005**]; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5A) [**RULE 475, 10-8-1976;** *RULE 475, 8-7-1978*]; **PM10**: 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**: 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) -BACT, 12-6-2002*]	A63.2, A99.1, A99.3, A99.5, A99.7, A99.9, A195.1, A195.2, A195.3, A327.1, A433.1, B61.1, C1.1, C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

* (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.)
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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
Process 1: INTERNAL COMBUSTION					
CO OXIDATION CATALYST, NO. 6, BASF, WITH 150 CUBIC FEET OF TOTAL CATALYST VOLUME. A/N:	C33	D31 C34			
SELECTIVE CATALYTIC REDUCTION, NO. 6, CORMETECH CHMT-2, 812 CU.FT.; WIDTH: 2 FT 2 IN; HEIGHT: 4 FT 2 IN; LENGTH: 10 FT 11 IN WITH A/N: AMMONIA INJECTION, GRID	C34	C33 S36		**NH3**: 5 PPMV NATURAL GAS (4) [**RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E179.3, E193.1
STACK, NO.6, HEIGHT: 90 FT ; DIAMETER: 13 FT 6 IN A/N:	S36	C34			

* (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
CPV SENTINEL LLC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 7, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH A/N: GENERATOR, 103 MW	D37	C39	NOX: MAJOR SOURCE**	**CO**: 4 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**: 2.5 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012, 5-6-2005**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK, 7-6-2006**]; **NOX**: 19 LBS/MMSCF (1) [**RULE 2012, 5-6-2005**]; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5A) [**RULE 475, 10-8-1976;** *RULE 475, 8-7-1978*]; **PM10**: 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**: 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) -BACT, 12-6-2002*]	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9, A195.1, A195.2, A195.3, A327.1, A433.1, B61.1, C1.1, C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, H23.1, I296.1, K40.1, K67.1

* (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
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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:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
CO OXIDATION CATALYST, NO. 7, BASF, WITH 150 CUBIC FEET OF TOTAL CATALYST VOLUME. A/N:	C39	D37 C40			
SELECTIVE CATALYTIC REDUCTION, NO. 7, CORMETECH CHMT-2, 812 CU.FT.; WIDTH: 2 FT 2 IN; HEIGHT: 4 FT 2 IN; LENGTH: 10 FT 11 IN WITH A/N: AMMONIA INJECTION, GRID	C40	C39 S42		**NH3**: 5 PPMV NATURAL GAS (4) [**RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E179.3, E193.1

* (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
CPV SENTINEL LLC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG8, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH A/N: GENERATOR, 103 MW	D43	C45	NOX: MAJOR SOURCE**	**CO**: 4 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**: 2.5 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012, 5-6-2005**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK, 7-6-2006**]; **NOX**: 19 LBS/MMSCF NATURAL GAS (1A) [**RULE 2012, 5-6-2005**]; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5A) [**RULE 475, 10-8-1976;** *RULE 475, 8-7-1978*]; **PM10**: 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**: 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) -BACT, 12-6-2002*]	A63.1, A63.2, A99.1, A99.3, A99.5, A99.7, A99.9, A195.1, A195.2, A195.3, A327.1, A433.1, B61.1, C1.1, C1.3, C1.6, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, H23.1, I296.1, K40.1, K67.1

* (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
CPV SENTINEL LLC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
CO OXIDATION CATALYST, NO. 8, BASF, WITH 150 CUBIC FEET OF TOTAL CATALYST VOLUME. A/N:	C45	D43 C46			
SELECTIVE CATALYTIC REDUCTION, NO. 8, CORMETECH CHMT-2, 812 CU.FT.; WIDTH: 2 FT 2 IN; HEIGHT: 4 FT 2 IN; LENGTH: 10 FT 11 IN WITH A/N: AMMONIA INJECTION, GRID	C46	C45 S48		**NH3**: 5 PPMV NATURAL GAS (4) [**RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E179.3, E193.1
STACK, NO.8, HEIGHT: 90 FT ; DIAMETER: 13 FT 6 IN A/N:	S48	C46			
System 2: EMERGENCY ENGINES					

* (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
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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:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
INTERNAL COMBUSTION ENGINE, EMERGENCY FIRE, DIESEL FUEL, CLARKE, MODEL JU6H-UFADTO, DRIVING AN FIRE PUMP, WITH AFTERCOOLER, TURBOCHARGER, 274 HP A/N:	D49		NOX: PROCESS UNIT**	**CO**: 2.6 GRAM/BHP-HR DIESEL (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; **NOX**: 134 LBS/1000 GAL DIESEL (1) [**RULE 2012, 5-6-2005**]; **NOX + ROG**: 3 GRAM/BHP-HR DIESEL (4) [**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; **RULE 2005, 5-6-2005**]; **PM10**: 0.15 GRAM/BHP-HR DIESEL (4) [**RULE 1303(a)(1)-BACT, 5-10-1996;** *RULE 1303(a)(1) -BACT, 12-6-2002*]; **SOX**: 0.005 GRAM/BHP-HR DIESEL (4) [**RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	B61.2, C1.4, D12.5, I296.3, K67.3
Process 2: INORGANIC CHEMICAL STORAGE					
STORAGE TANK, TK-1, 29.4% AQUEOUS AMMONIA, WITH PVR SET AT 25 PSIG, 12000 GALS; DIAMETER: 9 FT 4 IN; HEIGHT: 12 FT A/N:	D52				C157.1, E144.1, E193.1, K67.2
STORAGE TANK, TK-2, 29.4% AQUEOUS AMMONIA, WITH PVR SET AT 25 PSIG, 12000 GALS; DIAMETER: 9 FT 4 IN; HEIGHT: 12 FT A/N:	D53				C157.1, E144.1, E193.1, K67.2

* (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.

FACILITY PERMIT TO OPERATE
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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.

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SECTION H: DEVICE ID INDEX

Device Index For Section H			
Device ID	**Section H Page No.**	**Process**	**System**
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C3	3	1	1
C4	3	1	1
S6	3	1	1
D7	5	1	1
C9	5	1	1
C10	5	1	1
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C16	7	1	1
S18	7	1	1
D19	8	1	1
C21	8	1	1
C22	9	1	1
S24	9	1	1
D25	10	1	1
C27	11	1	1
C28	11	1	1
S30	11	1	1
D31	12	1	1
C33	13	1	1
C34	13	1	1
S36	13	1	1
D37	14	1	1
C39	15	1	1
C40	15	1	1
D43	16	1	1
C45	17	1	1
C46	17	1	1
S48	17	1	1
D49	18	1	2
D52	18	2	0
D53	18	2	0

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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:

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 purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

The operator shall maintain a copy of the MSDS on site

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

DEVICE CONDITIONS

A. Emission Limits

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

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 2425 LBS IN ANY ONE MONTH
CO	Less than or equal to 6477 LBS IN ANY ONE MONTH
SOX	Less than or equal to 293 LBS IN ANY ONE MONTH

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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:

VOC	Less than or equal to 1432 LBS IN ANY ONE MONTH

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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:

The operator shall calculate the monthly emissions for VOC, PM10 and SOx using the equation below and the following emission factors: VOC: 2.52 lb/mmcf; PM10: 5.71 lb/mmcf; and SOx: 0.71 lb/mmcf.

Monthly Emissions, lb/month = X (E.F.)

Where X = monthly fuel usage in mmscf/month and E.F. = emission factor indicated above

Compliance with the CO emission limit shall be verified through valid CEMS data

The operator shall calculate the emission limit(s) for the purpose of determining compliance with the monthly CO limit in the absence of valid CEMS data by using the above equation and the following emission factor(s):

(A) During the commissioning period and prior to CO catalyst installation - 38.48 lbs CO/mmcf

(B) After installation of the CO catalyst but prior to CO CEMS certification testing - 14.38 lb CO/mmcf. The emission rate shall be recalculated in accordance with Condition D82.1 if the approved CEMS certification test resulted in emission concentration higher than 4 ppmv.

(C) After CO CEMS certification testing - 14.38 lb/CO mmcf. After CO CEMS certification test is approved by the AQMD, the emissions monitored by the CEMS and calculated in accordance with condition D82.1 shall be used to calculate emissions.

For the purposes of this condition, the limit(s) shall be based on the emissions from a single turbine. During commissioning, the CO emissions shall not exceed 11,602 lbs in any one month. During commissioning, the VOC emissions shall not exceed 620 lbs in any one month.

The operator shall provide the AQMD with written notification of the date of initial CO catalyst use within seven (7) days of this event.

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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:

For the purpose of this condition the turbine shall not commence with normal operation until the commissioning process has been completed. The District shall be notified in writing once the commissioning process has been completed. Normal operations may proceed in the same commissioning month provided the operator follows the requirements listed below:

The operator shall calculate the commissioning emissions for VOC, SOx and PM10 for the commissioning month (beginning of the month to the last day of commissioning) using the equation below and the following emission factors: VOC: 2.06 lb/mmcf; PM10: 2.49 lb/mmcf; and SOx: 0.12 lb/mmcf

Commissioning Emissions, lb/month = X (E.F.)

Where X = commissioning fuel usage in mmscf/month and E.F. = emission factor indicated above.

The commissioning emissions for VOC, SOx and PM10 shall be subtracted from the monthly emissions limits (listed in the table at the top of this condition) and the revised monthly emission limits will be the maximum emissions allowed for the remaining of the month

For the purpose of this condition, normal operations is defined as the turbine is able to supply electrical energy to the power grid as required under contract with SCE or other entity.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D37, D43]

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

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 118120 LBS IN ANY ONE YEAR
SOX	Less than or equal to 13928 LBS IN ANY ONE YEAR

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

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

For the purposes of this condition, the annual limit(s) shall be calculated by using annual and montthly fuel use data, and the following emission factors: PM10 5.71 lb/MMSCF; and SOx: 0.25 grains/100 scf.

For the purpose of this condition, the yearly emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12 month period beginning on the first day of each calendar month.

[**RULE 1303, 5-10-1996;** RULE 1303, 10-20-2000; **40CFR 51 Subpart S, 3-8-2007**]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

A99.1 The 2.5 PPM NOX emission limit(s) shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 150 hours. Start-up time shall not exceed 25 minutes for each start-up. Shutdown periods shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 300 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

For the purposes of this condition, start-up shall be defined as start up process to bring the turbine in full successful operations. If during start-up the process is aborted and the start-up is restarted, then the start-up and restart is defined as "one start-up" In this case the start-up time shall not exceed one hour. The NOx emissions limited to 29.54 pounds per hour as listed in condition A433.1.

For the purposes of this condition, the aborted start-up shall be defined as not to exceed one hour.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

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

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

A99.3 The 4 PPM CO emission limit(s) shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 150 hours. Start-up time shall not exceed 25 minutes for each start-up. Shutdown periods shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 300 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

For the purposes of this condition, start-up shall be defined as the start up process to bring the turbine in full successful operations. If during start-up the process is aborted and the start-up is restarted, then the start-up and restart is defined as "one start-up". In this case the start-up time shall not exceed one hour.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

A99.5 The 19.0 LBS/MMCF NOX emission limit(s) shall only apply the interim reporting period during initial turbine commissioning to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

A99.7 The 12.26 LBS/MMCF NOX emission limit(s) shall only apply during the interim reporting period after initial turbine commissioning to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

FACILITY PERMIT TO OPERATE
CPV SENTINEL LLC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

A99.9 The 2.0 PPM ROG emission limit(s) shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 150 hours. Start-up time shall not exceed 25 minutes for each start-up. Shutdown periods shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 300 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

For the purposes of this condition, start-up shall be defined as the start up process to bring the turbine in full successful operations. If during start-up the process is aborted and the start-up is restarted, then the start-up and restart is defined as "one start-up". In this case the start-up time shall not exceed one hour.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

A195.1 The 4.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

A195.2 The 2.5 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

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

[Devices subject to this condition : D1, D13, D19, D25, D31, D37, D43]

A195.3 The 2.0 PPMV ROG emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

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

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

A195.4 The 5 PPMV NH3 emission limit(s) is averaged over 60 minutes at 15% O2, dry basis. The operator shall calculate and continuously record the NH3 slip concentration using the following.

NH3 (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 : C4, C10, C16, C22, C28, C34, C40, C46]

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 : D1, D7, D13, D25, D31, D37, D43]

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

A433.1 The operator shall comply at all times with the 2.5 ppm 1-hour BACT liimit for NOx, except as defined in condition A99.1 and for the following scenario::

Operating Scenario	Maximum Hourly Emissions Limit	Operational Limit
Start-up hour	29.54	NOx emissions not to exceed 29.54lbs total per start-up per turbine. Each turbine shall be limited to 300 start-ups per year, with each start-up not to exceed 25 minutes.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 4-20-2001**]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

B. Material/Fuel Type Limits

B61.1 The operator shall not use natural gas containing the following specified compounds:

Compound	Grains per 100 scf
H2S	greater than 0.25

This concentration limit is an annual average based on monthly sample of natural gas composition or gas supplier documentation. Gaseous fuel samples shall be tested using District Method 307-91 for total sulfur calculated as H2S.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

B61.2 The operator shall only use diesel fuel containing the following specified compounds:

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

Compound	Range	ppm by weight
Sulfur	less than or equal to	15

The operator shall maintain a copy of the MSDS on site

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

[Devices subject to this condition : D49]

C. Throughput or Operating Parameter Limits

C1.1 The operator shall limit the fuel usage to no more than 425 MM cubic feet in any one calendar month.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine during a non-commissioning month..

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

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

C1.3 The operator shall limit the fuel usage to no more than 301 MM cubic feet.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine during a commissioning period. The max fuel usage shall not exceed 301 mmcf per month.

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

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

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

C1.4 The operator shall limit the operating time to no more than 50 hour(s) in any one year.

For the purposes of this condition, the operating time is inclusive of time allotted for maintenance and testing.

[RULE 1110.2, 2-1-2008; **RULE 1303(b)(2)-Offset, 5-10-1996;** RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1470, 6-1-2007; **RULE 2012, 5-6-2005**]

[Devices subject to this condition : D49]

C1.6 The operator shall limit the fuel usage to no more than 2455 MM cubic feet per year.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine during a non-commissioning year..

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

[RULE 1401, 3-4-2005; RULE 1703(a)(3) PSD Analysis, 10-7-1988]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

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

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

[Devices subject to this condition : D52, D53]

D. Monitoring/Testing Requirements

D12.1 The operator shall install and maintain a(n) flow meter to accurately indicate the fuel usage being supplied to the turbine.

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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

[**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 : D1, D7, D13, D19, D25, D31, D37, D43]

D12.2 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

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 twelve months. The calibrations records shall be kept on site and made available to AQMD personnel upon request.

The ammonia injection system shall be placed in full operation as soon as the minimum temperature is reached. The minimum temperature is listed as 540 degrees F. at the inlet to the SCR reactor

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

[Devices subject to this condition : C4, C10, C16, C22, C28, C34, C40, C46]

D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the 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 twelve months.

The catalyst temperature range shall remain between 740 degree F and 840 degrees F

The catalyst intlet temperature shall not exceed 840 degrees F.

The temperature range requirement of this condition does not apply during start-up operations of the turbine not to exceed 25 minutes per start-up.

For this condition start-up shall be defined as the start up process to bring the turbine in full successful operations. If during start-up the process is aborted and the start-up is restarted, then the start-up and restart is defined as "one start-up". In this case the start-up time shall not exceed one hour

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

[Devices subject to this condition : C4, C10, C16, C22, C28, C34, C40, C46]

D12.4 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.

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 twelve months

It shall be calibrated once every twelve months

The pressure drop across the catalyst shall not exceed 12 inches water column

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

[Devices subject to this condition : C4, C10, C16, C22, C28, C34, C40, C46]

D12.5 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time from the engine.

[RULE 1110.2, 2-1-2008; **RULE 1303(b)(2)-Offset, 5-10-1996;** RULE 1303(b)(2) -Offset, 12-6-2002; RULE 1470, 6-1-2007; **RULE 2012, 5-6-2005**]

[Devices subject to this condition : D49]

D29.1 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
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	District Method 5	4 hours	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

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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 the later of 180 days after initial start-up or three hundred hours of operations after 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, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 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 analyt

The test shall be conducted when this equipment is operating at maximum, average, and minimum loads.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 7

The use of this alternative method for VOC compliance determination 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 calculated as carbon for natural gas fired turbines.

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

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

For the purpose of this condition, alternative test method may be allowed for each of the above pollutants upon concurrence of AQMD, EPA and CARB.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

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
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	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 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.

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

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

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

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
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	District Method 5	4 hours	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 to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 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 analyt

The test shall be conducted when this equipment is operating at maximum, average, and minimum loads.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 7

The use of this alternative method for VOC compliance determination 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 calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and

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

represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

For the purpose of this condition, alternative test method may be allowed for each of the above pollutants upon concurrence of AQMD, EPA and CARB.

[**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]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

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

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

The CEMS would 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.

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

CO Emission Rate, lbs/hr = K Cco Fd[20.9% - %O2 d)][(Qg * HHV)/1.0^6], where

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

Cco = Average of four consecutive 15 min. ave. CO concentration, ppm

Fd = 8710 dscf/MMBTU natural gas

%O2 d = Hourly ave. % by vol. O2 dry, corresponding to Cco

Qg = 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, 8-7-1981;** RULE 218, 5-14-1999]

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

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.

The CEMS shall be installed and operating no later than 90 days after initial start-up of the turbine 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 start-up date, the operator shall provide written notification to the District of the exact date of start-up

The CEMS shall be installed and operating (for BACT purposes only) no later than 90 days after initial start up of the turbine.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

E. Equipment Operation/Construction Requirements

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 : D52, D53]

E179.1 For the purpose of the following condition number(s), condition number(s), continuously record shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month.

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

Condition Number D 12- 4

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

[Devices subject to this condition : C4, C10, C16, C22, C28, C34, C40, C46]

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 based upon the average of the continuous monitoring for that hour.

Condition Number D 12- 2

Condition Number D 12- 3

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

[Devices subject to this condition : C4, C10, C16, C22, C28, C34, C40, C46]

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

Condition Number D 12- 2

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

[Devices subject to this condition : C4, C10, C16, C22, C28, C34, C40, C46]

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 the final California Energy Commission decision for the 07-AFC-3 project

[CA PRC CEQA, 11-23-1970]

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

[Devices subject to this condition : D1, C4, D7, C10, D13, C16, D19, C22, D25, C28, D31, C34, D37, C40, C46, D52, D53]

H. Applicable Rules

H23.1 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 : D1, D13, D19, D25, D31, D37, D43]

I. Administrative

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

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

To comply with this condition, the operator shall prior to the 1st compliance year hold a minimum NOx RTCs of 35767 lbs/yr. This condition shall apply during the 1st 12 months of operation, commencing with the initial operation of the gas turbine.

To comply with this condition, the operator shall, prior to the beginning of all years subsequent to the 1st compliance year, hold a minimum of 30,039 lbs/yr fo NOx RTCs for operation of the gas turbine

In accordance with Rule 2005(f), unused RTC's may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the 1st compliance year.

This condition shall apply to each turbine individually.

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

I296.3 This equipment shall not be operated unless the operator demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.

To comply with this condition, the operator shall prior to the 1st compliance year hold a minimum NOx RTCs of 77 lbs/yr. This condition shall apply during the 1st 12 months of operation, commencing with the initial operation of the fire pump

In accordance with Rule 2005(f), unused RTC's may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the 1st compliance year.

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

[Devices subject to this condition : D49]

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

K. Record Keeping/Reporting

K40.1 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 (lb/hr), and lb/MMCF. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains/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),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, 5-6-2005**]

[Devices subject to this condition : D1, D7, D13, D25, D31, D37, D43]

K67.1 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:

Natural gas fuel use after CEMS certification

Natural gas fuel use during the commissioning period

Natural gas fuel use after the commissioning period and prior to CEMS certification

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

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

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

The operator shall document an inspection each time the tank is filled to insure the vapor recovery equipment is consistently and properly used

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

[Devices subject to this condition : D52, D53]

K67.3 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:

Manual and automatic operation and shall list all engine operations in each of the following areas:

Emergency use hours of operation

Maintenance and testing hours

Other operating hours (describe the reason for operation)

In addition, 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 five calendar years prior to the current year and 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 1470, 6-1-2007]

[Devices subject to this condition : D49]

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CPV SENTINEL LLC

SECTION I: PLANS AND SCHEDULES

This section lists all plans approved by AQMD for the purposes of meeting the requirements of applicable AQMD rules.

NONE

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.

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SECTION J: AIR TOXICS

NOT APPLICABLE

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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
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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
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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)]

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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)]

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EMERGENCY PROVISIONS

17. An emergency[1] 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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1 "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.

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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.

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(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;

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(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)]

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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.

RULE SOURCE	Adopted/Amended Date	FEDERAL Enforceability
RULE 1110.2	2-1-2008	Non federally enforceable
RULE 1113	11-8-1996	Federally enforceable
RULE 1113	7-13-2007	Non federally enforceable
RULE 1171	11-7-2003	Federally enforceable
RULE 1171	2-1-2008	Non federally enforceable
RULE 1303	5-10-1996	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 1401	3-4-2005	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	Non federally enforceable
RULE 1703(a)(3) PSD Analysis	10-7-1988	Non federally enforceable
RULE 2005	4-20-2001	Federally enforceable
RULE 2005	5-6-2005	Federally enforceable
RULE 2012	5-6-2005	Federally enforceable
RULE 218	5-14-1999	Non federally enforceable
RULE 218	8-7-1981	Federally enforceable

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RULE SOURCE	Adopted/Amended Date	FEDERAL Enforceability
RULE 3002	11-14-1997	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 3005	11-14-1997	Federally enforceable
RULE 3005	3-16-2001	Non federally enforceable
RULE 3007	10-8-1993	Federally enforceable
RULE 401	11-9-2001	Non federally enforceable
RULE 401	3-2-1984	Federally enforceable
RULE 407	4-2-1982	Federally enforceable
RULE 408	5-7-1976	Federally enforceable
RULE 409	8-7-1981	Federally enforceable
RULE 431.2	5-4-1990	Federally enforceable
RULE 431.2	9-15-2000	Non federally enforceable
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 51 Subpart S	3-8-2007	Federally enforceable
40CFR 60 Subpart KKKK	7-6-2006	Federally enforceable
40CFR 72 - Acid Rain Provisions	11-24-1997	Federally enforceable

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

NONE

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APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 11-08-1996]

(1) Except as provided in paragraphs (c)(2), (c)(3), and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, or solicit the application of, any architectural coating 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, or manufacture, blend, or repackage such a coating for use within the District.

(2) Except as provided in paragraphs (c)(3) and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, solicit the application of, 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.

TABLE OF STANDARDS

VOC LIMITS

Grams of VOC Per Liter of Coating, Less Water And Less Exempt Compounds

COATING	Limit*	Effective Date of Adoption	Effective 1/1/1998	Effective 1/1/1999	Effective 7/1/2001	Effective 1/1/2005	Effective 7/1/2008
Bond Breakers	350						
Clear Wood Finishes							
Varnish	350						
Sanding Sealers	350						
Lacquer	680		550			275	
Concrete-Curing Compounds	350						
Dry-Fog Coatings	400						
Fire-proofing Exterior Coatings	350	450		350			
Fire-Retardant Coatings							
Clear	650						
Pigmented	350						
Flats	250				100		50
Graphic Arts (Sign) Coatings	500						

FACILITY PERMIT TO OPERATE
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APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 11-08-1996]

Industrial Maintenance Primers and Topcoats							
Alkyds	420						
Catalyzed Epoxy	420						
Bituminous Coatings	420						
Materials							
Inorganic Polymers	420						
Vinyl Chloride Polymers	420						
Chlorinated Rubber	420						
Acrylic Polymers	420						
Urethane Polymers	420						
Silicones	420						
Unique Vehicles	420						
Japans/Faux Finishing	350	700		350			
Coatings							
Magnesite Cement Coatings	600			450			
Mastic Coatings	300						
Metallic Pigmented Coatings	500						
Multi-Color Coatings	420		250				
Pigmented Lacquer	680		550			275	
Pre-Treatment Wash Primers	780						
Primers, Sealers, and Undercoaters	350						
Quick-Dry Enamels	400						
Roof Coatings	300						
Shellac							
Clear	730						
Pigmented	550						
Stains	350						
Swimming Pool Coatings							
Repair	650						
Other	340						
Traffic Coatings	250		150				
Waterproofing Sealers	400						
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

TABLE OF STANDARDS (cont.)

VOC LIMITS

Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

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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.

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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		
Nonflat High Gloss	250		150				50	

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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
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 Roof Coatings, Aluminum	300 500		250		50 100			
Roof Primers, Bituminous	350		350					
Rust Preventative Coatings	420		400			100		
Shellac Clear Pigmented	 730 550							
Specialty Primers	350					250	100	
Stains Stains, Interior	350 250		250				100	
Swimming Pool Coatings Repair Other	 650 340		340					
Traffic Coatings	250	150					100	
Waterproofing Sealers	400		250			100		
Waterproofing Concrete/Masonry Sealers	400					100		
Wood Preservatives Below-Ground Other	 350 350							

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

* 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.

TABLE OF STANDARDS (cont.)
VOC LIMITS

Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

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APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 11-07-2003]

(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 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	500 (4.2)
(iii)	Medical Devices & Pharmaceuticals	800 (6.7)
(B)	Repair and Maintenance Cleaning	

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APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 11-07-2003]

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS VOC g/l (lb/gal)
(i) General	25 (0.21)
(ii) Electrical Apparatus Components & Electronic Components	900 (7.5)
(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	550 (4.6)
(D) Cleaning of Ink Application Equipment	
(i) General	25 (0.21)
(ii) Flexographic Printing	25 (0.21)
(iii) Gravure Printing	
(A) Publication	750 (6.3)
(B) Packaging	25 (0.21)
(iv) Lithographic or Letter Press Printing	

FACILITY PERMIT TO OPERATE
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APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 11-07-2003]

SOLVENT CLEANING ACTIVITY		CURRENT LIMITS VOC g/l (lb/gal)
(A)	Roller Wash – Step 1	600 (5.0)
(B)	Roller Wash-Step 2, Blanket Wash, & On-Press Components	800 (6.7)
(C)	Removable Press Components	25 (0.21)
(v)	Screen Printing	750 (6.3)
(vi)	Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	800 (6.7)
(vii)	Specialty Flexographic Printing	600 (5.0)
(E)	Cleaning of Polyester Resin Application Equipment	25 (0.21)

FACILITY PERMIT TO OPERATE
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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:

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS* VOC g/l (lb/gal)	EFFECTIVE VOC g/l (lb/gal)	EFFECTIVE 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)		

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

	CURRENT LIMITS*	EFFECTIVE	EFFECTIVE
SOLVENT CLEANING ACTIVITY (cont.)	**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
CPV SENTINEL LLC

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

	CURRENT LIMITS*	EFFECTIVE	EFFECTIVE
SOLVENT CLEANING ACTIVITY (cont.)	**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
CPV SENTINEL LLC

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_2) 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_2 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_2.[40 CFR 72.9(c)(ii)]

6. Each ton of SO_2 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
CPV SENTINEL LLC

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

7. SO_2 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_2 allowance shall not be deducted in order to comply with the requirements under paragraph 41(A) of the SO_2 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_2 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_2 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
CPV SENTINEL LLC

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
CPV SENTINEL LLC

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
CPV SENTINEL LLC

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 (NOx 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
CPV SENTINEL LLC

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)]

Appendix A - CPV SENTINAL ENERGY PROJECT
LMS100 PA Hourly Emissions - Normal Operations

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/29/09	

Data:

Standard Conditions: 29.92 inches Hg and 68 degrees Fahrenheit

Uncontrolled Emissions from the CTG:

NOx = 25 ppm @ 15% O2, CO = 100 ppm @ 15% O2, VOC = 3.4 ppm, PM10 = 0.0062 lbs/MMBTU; SOx = 0.25 grains/100 scf

Controlled Emissions from the CTG:

NOx = 2.5 ppm @ 15% O2, CO = 4 ppm @ 15% O2, VOC = 2 ppm, PM10 = 0.0062 lbs/MMBTU; SOx = 0.25 grains/100 scf

CO Emissions

Operating Condition Number	Heat Input (MMBTU/hr)	Pollutant Conc. Uncontrolled (ppmvd)	Pollutant Conc. Controlled (ppmvd)	Molecular Weight (lbs/lb-mole)	Emission Rate Uncontrolled (lb/hr)	Emission Rate Controlled (lb/hr)
103	804.1	92.4	4	28	178.85	7.74

NOx Emissions

Operating Condition Number	Heat Input (MMBTU/hr)	Pollutant Conc. Uncontrolled (ppmvd)	Pollutant Conc. Controlled (ppmvd)	Molecular Weight (lb/lb-mol)	Emission Rate Uncontrolled (lb/hr)	Emission Rate Controlled (lb/hr)
103	804.1	25	2.5	46	79.50	7.950

VOC Emissions

Operating Condition Number	Heat Input (MMBTU/hr)	Pollutant Conc. Uncontrolled (ppmvd)	Pollutant Conc. Controlled (ppmvd)	Molecular Weight (lb/lb-mol)	Emission Rate Uncontrolled (lb/hr)	Emission Rate Controlled (lb/hr)
103	804.1	3.4	2.0	16	3.76	2.21

Appendix A - CPV SENTINAL ENERGY PROJECT
LMS100 PA Hourly Emissions - Normal Operations

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/29/09	

PM10 Emissions

Operating Condition Number	Heat Input (MMBTU/hr)	Emission Factor[1] (lb/MMBTU)	Emission Rate Uncontrolled (lb/hr)	Emission Rate Controlled (lb/hr)
103	804.1	0.0062	5.00	5.00

SOx Emissions

Operating Condition Number	Heat Input (MMBTU/hr)	Emission Factor[2] (lb/MMBTU)	Emission Rate Uncontrolled (lb/hr)	Emission Rate Controlled (lb/hr)
103	804.1	0.00078	0.626	0.626

[1] Based on a manufacturer guarantee of 5 lb/hr at 789.8 MMBTU/hr = 0.0076 lb/MMBTU

[2] Based on a maximum sulfur content of 0.25 grains/100 scf fuel; 918 BTU/scf natural gas (LHV); and 7,000 grains/lb, and 1 mole S for mole SO_2

SOx emissions = 0.25 g/scr)*(1lb/7000 g)*(1/100)*(804.1 Mmbtu/hr)*(1.0E06 btu/mmbtu)/918 btu/scf *(64 lb SO2/32 lb S)

NH3 Emissions

Operating Condition Number	Pollutant Conc. Controlled (ppmvd)	Molecular Weight (lb/lb-mol)	Emission Rate (lb/hr)
103	5	17	5.89

Appendix A - CPV SENTINAL ENERGY PROJECT
LMS100 PA Hourly Emissions - Normal Operations

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/29/09	

Operating Condition Number	Heat Input (MMBTU/hr	Exhaust mass rate lb/hr	O2 correction factor (ppmvd)	exhaust mw (lb/lb-mol)	water content exhasust %
103	804.1	1,641,406	0.7447	28	12.2

The above data (revised) was provided by GE and will be used to determine emissions

Emissions = ((ppmv/1E06)/O2 correction factor)*(1-H2O%/100)*(MW/28 lb/lb-mole)*exhaust mass rate lb/hr

where

PPMv is the R1 or R2 concentration limit @ 15% oxygen of the given pollutant
O2 correction factor = 20.9-15/(20.19-O2%), where O2% is the content at the given operating condtiion
H2O is the percent water contect of the exhaust at the given operating condition
MW is the molecular wt of the given pollutant
28.12 lb exhaust per lb mole (conversion)
exhaust gas mass rate at a given operating condition

Appendix A - CPV SENTINAL ENERGY PROJECT
LMS100 PA Hourly Emissions - Normal Operations

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/29/09	

Operating Condition Number	Heat Input (MMBTU/hr	Exhaust mass rate lb/hr	O2 correction factor (ppmvd)	exhaust mw (lb/lb-mol)	water content exhasust %
103	804.1	1,641,406	0.7447	28	12.2

The above data (revised) was provided by GE and will be used to determine emissions

Emissions = ((ppmv/1E06)/O2 correction factor)*(1-H2O%/100)*(MW/28 lb/lb-mole)*exhaust mass rate lb/hr

where

PPMv is the R1 or R2 concentration limit @ 15% oxygen of the given pollutant
O2 correction factor = 20.9-15/(20.19-O2%), where O2% is the content at the given operating condtiion
H2O is the percent water contect of the exhaust at the given operating condition
MW is the molecular wt of the given pollutant
28.12 lb exhaust per lb mole (conversion)
exhaust gas mass rate at a given operating condition

Appendix B - CPV SENTINEL ENERGY PROJECT
LMS100 PA Daily Emissions - Non-Commissioning Year

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/21/09	

Operating Condition 100	Hours per day	CO (lb/hr)	NOx (lb/hr)	VOC (lb/hr)	PM10 (lb/hr)	SOx (lb/hr)	CO (lb/day)	NOX (lb/day)	VOC (lb/day)	PM10 (lb/day)	SOx (lb/day)
Unit 1 Start-Up	0.833	38.15	59.76	10.21	5.00	0.42	32	50	9	4	0.350
Unit 1 Normal Operations	15	7.74	7.95	2.21	5.00	0.63	116	119	33	75	9
Unit 1 Shutdown	0.33	203.88	34.95	17.48	5.00	0.12	67	12	6	2	0.040
Unit 1 Totals	16.2						215	181	47	81	9.78

WORST MONTH	HR	start up	shut down		min	min
TUBINES 1-8	15	2	2		25	10

Turbines 1-8 operate 16 hr/dys
start up hour include start up emissions and normal operating emissions
shut down hour include shut down emissions and normal operating emissions

Appendix B - CPV SENTINEL ENERGY PROJECT
LMS100 PA Monthly Emissions - Non-Commissioning Year

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/21/09	

Operating Condition 100	Hours per Month	CO (lb/hr)	NOx (lb/hr)	VOC (lb/hr)	PM10 (lb/hr)	SOx (lb/hr)	CO (lb/month)	NOX (lb/month)	VOC (lb/month)	PM10 (lb/month)	SOx (lb/month)
Unit 1 Start-Up	25	38.15	59.76	10.21	5.00	0.42	954	1,494	255	125	11
Unit 1 Normal Operations	450	7.74	7.95	2.21	5.00	0.63	3,484	3,578	995	2,250	282
Unit 1 Shutdown	10	203.88	34.95	17.48	5.00	0.12	2,039	350	175	50	1
Unit 1 Totals	485						6,477	5,421	1,424.55	2,425.00	293.40
Unit 2 Start-Up	25	38.15	59.76	10.21	5.00	0.42	954	1,494	255	125	11
Unit 2 Normal Operations	450	7.74	7.95	2.21	5.00	0.63	3,484	3,578	995	2,250	282
Unit 2 Shutdown	10	203.88	34.95	17.48	5.00	0.12	2,039	350	175	50	1
Unit 2 Totals	485						6,477	5,421	1,424.55	2,425	293.40
Unit 3 Start-Up	25	38.15	59.76	10.21	5.00	0.42	954	1,494	255	125	11
Unit 3 Normal Operations	450	7.74	7.95	2.21	5.00	0.63	3,484	3,578	995	2,250	282
Unit 3 Shutdown	10	203.88	34.95	17.48	5.00	0.12	2,039	350	175	50	1
Unit 3 Totals	485						6,477	5,421	1,424.55	2,425	293.40
Unit 4 Start-Up	25	38.15	59.76	10.21	5.00	0.42	954	1,494	255	125	11
Unit 4 Normal Operations	450	7.74	7.95	2.21	5.00	0.63	3,484	3,578	995	2,250	282
Unit 4 Shutdown	10	203.88	34.95	17.48	5.00	0.12	2,039	350	175	50	1
Unit 4 Totals	485						6,477	5,421	1,424.55	2,425	293
Unit 5 Start-Up	25	38.15	59.76	10.21	5.00	0.42	954	1,494	255	125	11
Unit 5 Normal Operations	450	7.74	7.95	2.21	5.00	0.63	3,484	3,578	995	2,250	282
Unit 5 Shutdown	10	203.88	34.95	17.48	5.00	0.12	2,039	350	175	50	1
Unit 5 Totals	485						6,477	5,421	1,424.55	2,425	293
Unit 6 Start-Up	25	38.15	59.76	10.21	5.00	0.42	954	1,494	255	125	11
Unit 6 Normal Operations	450	7.74	7.95	2.21	5.00	0.63	3,484	3,578	995	2,250	282
Unit 6 Shutdown	10	203.88	34.95	17.48	5.00	0.12	2,039	350	175	50	1
Unit 6 Totals	485						6,477	5,421	1,424.55	2,425	293
Unit 7 Start-Up	25	38.15	59.76	10.21	5.00	0.42	954	1,494	255	125	11
Unit 7 Normal Operations	450	7.74	7.95	2.21	5.00	0.63	3,484	3,578	995	2,250	282
Unit 7 Shutdown	10	203.88	34.95	17.48	5.00	0.12	2,039	350	175	50	1
Unit 7 Totals	485						6,477	5,421	1,424.55	2,425	293

Unit 8 Start-Up	25	38.15	59.76	10.21	5.00	0.42	954	1,494	255	125	11
Unit 8 Normal Operations	450	7.74	7.95	2.21	5.00	0.63	3,484	3,578	995	2,250	282
Unit 8 Shutdown	10	203.88	34.95	17.48	5.00	0.12	2,039	350	175	50	1
Unit 8 Totals	485						6,477	5,421	1,424.55	2,425	293
Total Monthly Emissions (lb/month)							51,813	43,368	11,396	19,400	2,347

WORST MONTH	HR	start up	shut down	min	min
TUBINES 1-8	15	2	2	25	10

start up hour include start up emissions and normal operating emissions
shut down hour include shut down emissions and normal operating emissions

Appendix B - CPV SENTINEL ENERGY PROJECT
LMS100 PA - 30 Day Averages[1] - Non-Commissioning Year

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/21/09	

Turbine	CO lb/mon	NOX lb/mon	VOC lb/mon	PM10 lb/mon	SOx lb/mon
Unit 1	6476.57	5421.00	1424.55	2425.00	293.40
Unit 2	6476.57	5421.00	1424.55	2425.00	293.40
Unit 3	6476.57	5421.00	1424.55	2425.00	293.40
Unit 4	6476.57	5421.00	1424.55	2425.00	293.40
Unit 5	6,476.57	5,421.00	1,424.55	2,425.00	293.40
Unit 6	6,476.57	5,421.00	1,424.55	2,425.00	293.40
Unit 7	6,476.57	5,421.00	1,424.55	2,425.00	293.40
Unit 8	6,476.57	5,421.00	1,424.55	2,425.00	293.40

	CO 30-ave	NOX 30-ave	VOC 30-ave	PM10 30-ave	SOx 30-ave
Unit 1	208.92	174.87	45.95	78.23	9.46
Unit 2	208.92	174.87	45.95	78.23	9.46
Unit 3	208.92	174.87	45.95	78.23	9.46
Unit 4	208.92	174.87	45.95	78.23	9.46
Unit 5	208.92	174.87	45.95	78.23	9.46
Unit 6	208.92	174.87	45.95	78.23	9.46
Unit 7	208.92	174.87	45.95	78.23	9.46
Unit 8	208.92	174.87	45.95	78.23	9.46
total	1,671	1,399	367.60	625.84	75.68
ERC			441.12	751.01	90.82

30 day ave is bases on worst case month of 31 days

Appendix B - CPV SENTINEL ENERGY PROJECT
LMS100 PA - 30 Day Averages[1] - Commissioning Month

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/28/09	

Operating Condition 100	Hours per Month	CO (lb/hr)	NOx (lb/hr)	PM10 (lb/hr)	VOC (lb/hr)	SOx (lb/hr)	NOX (lb/month)	CO (lb/month)	PM10 lb/month	VOC lb/month	SOx lb/month
Unit 1 Startup	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 1 Commissioning	150	77.35	38.19	5.00	4.13	0.244	5728.5	11,603	750	620	37
Unit 1 Normal Operations	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 1 Shutdown	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 2 Startup	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 2 Commissioning	150	77.35	38.19	5.00	4.13	0.244	5728.5	11,603	750	620	37
Unit 2 Normal Operations	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 2 Shutdown	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 3 Startup	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 3 Commissioning	150	77.35	38.19	5.00	4.13	0.244	5728.5	11,603	750	620	37
Unit 3 Normal Operations	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 3 Shutdown	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 4 Startup	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 4 Commissioning	150	77.35	38.19	5.00	4.13	0.244	5728.5	11,603	750	620	37
Unit 4 Normal Operations	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 4 Shutdown	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 5 Startup	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 5 Commissioning	150	77.35	38.19	5.00	4.13	0.244	5728.5	11,603	750	620	37
Unit 5 Normal Operations	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 5 Shutdown	0	0.00		0.00	0.00	0.000		0	0	0	0
Unit 6 Startup	0	0		0	0	0		0	0	0	0
Unit 6 Commissioning	150	77.35	38.19	5.00	4.130	0.24	5728.5	11,603	750	620	37
Unit 6 Normal Operations	0	0		0	0	0		0	0	0	0
Unit 6 Shutdown	0	0		0	0	0		0	0	0	0
Unit 7 Startup	0	0		0	0	0		0	0	0	0
Unit 7 Commissioning	150	77	38.19	5	4	0.24	5728.5	11,603	750	620	37
Unit 7 Normal Operations	0	0		0	0	0		0	0	0	0
Unit 7 Shutdown	0	0		0	0	0		0	0	0	0

Unit 8 Startup	0	0		0	0	0		0	0	0	0
Unit 8 Commissioning	150	77	38.19	5	4	0.24	5728.5	11,603	750	620	37
Unit 8 Normal Operations	0	0		0	0	0		0	0	0	0
Unit 8 Shutdown	0	0		0	0	0		0	0	0	0
							lb/month	lb/month	lb/month	lb/month	lb/month
Total Monthly Emissions (lb/month)							45,828	92,820	6,000	4,956	293
								lb/day	lb/day	lb/day	lb/day
30-Day Average (lb/day)								3,094	200	165	10
30-Day Average (lb/day) per turbine								387	25	21	1

[1] CPV Sentinel will be in NOx RECLAIM. As such NOx will be offset with RTCs

The commissioing time for each turbine will be done within a one month period, not to exceed 150 hours per turbine
During the commissioning month the turbine will not proceed with normal operations unitl the following month (permit conditions)

Appendix B - CPV SENTINEL ENERGY PROJECT
LMS100 PA - 30 Day Averages - Commissioning Month

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/28/09	

Turbine	CO lb/mon	NOX lb/mon	VOC lb/mon	PM10 lb/mon	SOx lb/mon
Unit 1	11,603	5,729	620	750	37
Unit 2	11,603	5,729	620	750	37
Unit 3	11,603	5,729	620	750	37
Unit 4	11,603	5,729	620	750	37
Unit 5	11,603	5,729	620	750	37
Unit 6	11,603	5,729	620	750	37
Unit 7	11,603	5,729	620	750	37
Unit 8	11,603	5,729	620	750	37
Total	92,820	45,828	4,956	6,000	293

	CO 30-ave	NOx 30-ave	VOC 30-ave	PM10 30-ave	SOx 30-ave
Unit 1	374.27	184.79	19.98	24.19	1.18
Unit 2	374.27	184.79	19.98	24.19	1.18
Unit 3	374.27	184.79	19.98	24.19	1.18
Unit 4	374.27	184.79	19.98	24.19	1.18
Unit 5	374.27	184.79	19.98	24.19	1.18
Unit 6	374.27	184.79	19.98	24.19	1.18
Unit 7	374.27	184.79	19.98	24.19	1.18
Unit 8	374.27	184.79	19.98	24.19	1.18
total	2,994.19	1,478.32	159.87	193.55	9.45

30 day ave is bases on worst case month of 31 days

Appendix C - CPV SENTINEL ENERGY PROJECT
LMS100 PA Annual Emissions - Commissioning Year

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/28/09	

Operating Condition 100	Hours per Year	CO (lbs/hr)	NOx (lbs/hr)	VOC (lbs/hr)	PM10 (lbs/hr)	SOx (lbs/hr)	CO (lbs/year)	NOX (lbs/year)	VOC (lbs/year)	PM10 (lbs/year)	SOx (lbs/year)
Unit 1 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 1 Commissioning	150	77.35	38.19	4.13	5.00	0.24	11,603	5,729	620	750	37
Unit 1 Normal Operation	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 1 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 1 Totals	2,953						46,912	35,839	8,578	14,765	1,740
Unit 2 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 2 Commissioning	150	77.35	38.19	4.13	5.00	0.24	11,603	5,729	620	750	37
Unit 2 Normal Operation	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 2 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 2 Totals	2,953						46,912	35,839	8,578	14,765	1,740
Unit 3 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 3 Commissioning	150	77.35	38.19	4.13	5.00	0.24	11,603	5,729	620	750	37
Unit 3 Normal Operation	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 3 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 3 Totals	2,953						46,912	35,839	8,578	14,765	1,740
Unit 4 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 4 Commissioning	150	77.35	38.19	4.13	5.00	0.24	11,603	5,729	620	750	37
Unit 4 Normal Operation	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 4 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 4 Totals	2,953						46,912	35,839	8,578	14,765	1,740
Unit 5 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 5 Commissioning	150	77.35	38.19	4.13	5.00	0.24	11,603	5,729	620	750	37
Unit 5 Normal Operation	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 5 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 5 Totals	2,953						46,912	35,839	8,578	14,765	1,740
Unit 6 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 6 Commissioning	150	77.35	38.19	4.13	5.00	0.24	11,603	5,729	620	750	37
Unit 6 Normal Operation	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 6 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6

Unit 6 Totals	2,953						46,912	35,839	8,578	14,765	1,740
Unit 7 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 7 Commissioning	150	77.35	38.19	4.13	5.00	0.24	11,603	5,729	620	750	37
Unit 7 Normal Operation	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 7 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 7 Totals	2,953						46,912	35,839	8,578	14,765	1,740
Unit 8 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 8 Commissioning	150	77.35	38.19	4.13	5.00	0.24	11,603	5,729	620	750	37
Unit 8 Normal Operation	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 8 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 8 Totals	2,953						46,912	35,839	8,578	14,765	1,740
Total Annual Emissions (lb/year)							375,295	286,709	68,621	118,120	13,922
Total Annual Emissions (tons/year)							188	143	34	59	7

Appendix C - CPV SENTINEL ENERGY PROJECT
LMS100 PA Annual Emissions - Non-Commissioning Year

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/23/09	

Operating Condition 100	Hours per Year	CO (lbs/hr)	NOx (lbs/hr)	VOC (lbs/hr)	PM10 (lbs/hr)	SOx (lbs/hr)	CO (lbs/year)	NOX (lbs/year)	VOC (lbs/year)	PM10 (lbs/year)	SOx (lbs/year)
Unit 1 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 1 Normal Operations	2628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 1 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 1 Totals	2,803						35,309	30,110	7,958	14,015	1,704
Unit 2 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 2 Normal Operations	2628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 2 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 2 Totals	2,803						35,309	30,110	7,958	14,015	1,704
Unit 3 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 3 Normal Operations	2628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 3 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 3 Totals	2,803						35,309	30,110	7,958	14,015	1,704
Unit 4 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 4 Normal Operations	2628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 4 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 4 Totals	2,803						35,309	30,110	7,958	14,015	1,704
Unit 5 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 5 Normal Operations	2628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 5 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 5 Totals	2,803						35,309	30,110	7,958	14,015	1,704
Unit 6 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 6 Normal Operations	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 6 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 6 Totals	2,803						35,309	30,110	7,958	14,015	1,704
Unit 7 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 7 Normal Operations	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 7 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 7 Totals	2,803						35,309	30,110	7,958	14,015	1,704

Unit 8 Start-Up	125	38.15	59.76	10.21	5.00	0.42	4,769	7,470	1,276	625	53
Unit 8 Normal Operations	2,628	7.74	7.95	2.21	5.00	0.63	20,347	20,893	5,808	13,140	1,645
Unit 8 Shutdown	50	203.88	34.95	17.48	5.00	0.12	10,194	1,748	874	250	6
Unit 8 Totals	2,803						35,309	30,110	7,958	14,015	1,704
Total Annual Emissions (lb/year)							282,475	240,881	63,665	112,120	13,629
Total Annual Emissions (tons/year)							141	120	32	56	7

Appendix D - CPV SENTINEL ENERGY PROJECT
Emergency Fire Pump Emissions

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/23/09	

Data:
Standard Conditions: 29.92 inches Hg and 68 degrees Fahrenheit
Manufacturer: Clarke
Model No.: JW6H-UFADTO
Type of Fuel: No. 2 Diesel w/ 15 ppmw sulfur compounds by weight
Rated Power: 274 bhp at 2,100 rpm
Engine Design: Lean Burn
Maximum Rated Fuel Consumption: 13.5 gph
No. of Cylinders: 6

Assumptions:
Maximum hours of operation 50.00 hr/yr
Steady speed, steady load operations

Pollutant	Emission Factor[7] (gm/BHP-hr)	Maximum Rated Power (BHP)	Conversion Factor (gm/lb)	Emission Rate (lb/hr)	Annual Emission Rate[8] (lb/year)	Monthly Emission Rate[9] (lb/month)	Worst Monthl Emission Rate[11] (lb/month)	30 Day Average[10] (lb/day)
NOx	2.5600	274	454	1.545	77.25	6.44	7.73	0.249
CO	0.60	274	454	0.360	18.02	1.50	1.80	0.058
VOC	0.0670	274	454	0.040	2.02	0.17	0.20	0.007
PM10	0.0790	274	454	0.048	2.38	0.20	0.24	0.008
SOx	0.2158	274	454	0.0022	0.11	0.01	0.01	0.000

[7] Provided by the engine manufacturer (Clarke)
SOx emissions factor in terms of lb/mgal, SOx emissions = EF *gal/hr * (1/1000)
[8] Emission rate (lb/hr) multiplied by max hours of operation provide by applicant
[9] Emission rate (lb/year) divided by 12
[10] Emission rate (lb/month) divided by 31

[11] the engine can be tested 1 dy/wk up to 5 wks/mon, depending on the month, Emission rate (lb/hr) times 5 (for Rule 212 g reporting)

Appendix E - CPV CENTINEL ENERGY PROJECT
LMS100 PA Comissioning Emissions

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/29/09	

LMS100 PA Commissioning Emissions -

COMMISSIONSING Emissions per Turbine

Description		NOx	CO	VOC	SOx	PM10
	hrs	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
First fire	23	11.17	45.59	1.16	0.05	5.00
Synch & Check E-stop	17	11.29	46.24	1.18	0.05	5.00
Additional AVR	17	21.29	30.80	0.74	0.07	5.00
Break-in run	12	20.08	29.09	0.70	0.06	5.00
Dynamic AVR	58	48.72	74.90	4.77	0.34	5.00
Base laod AVR	23	80.43	197.85	11.98	0.56	5.00
total- lb/hr	150					

Description	NOx	CO	VOC	SOx	PM10
	lb/mon	lb/mon	lb/mon	lb/mon	lb/mon
First fire	257	1048.56	26.68	1.19	115.00
Synch & Check E-stop	192	786.06	20.05	0.89	85.00
Additional AVR	362	523.56	12.55	1.12	85.00
Break-in run	241	349.04	8.37	0.75	60.00
Dynamic AVR	2826	4344.23	276.78	19.71	290.00
Base laod AVR	1850	4550.48	275.48	12.90	115.00
totall lb/hr ave	38.19	77.35	4.13	0.24	5.00
totals/mon	5728	11601.92	619.90	36.56	750.00
30 ave	**185**	**374**	**20**	**1**	**24**

Commissioning emisssions provided by GE

Appendix E - CPV CENTINEL ENERGY PROJECT
LMS100 PA Comissioning Emissions

PAGES	PAGE	A/N 472139
BY RDO	DATE 11/13/09	

Description	Power Level	Corrected Operating Hours	Estimated Fuel Rate (MMBtu/hr)	Total Estimated Emission per Event					Exhaust Temperature (deg F)	Exhaust Flow (lb/sec)
				NO_X (lbs)	CO (lbs)	VOC (lbs)	PM_{10} (lbs)	SO_X (lbs)		
*** First fire the unit & then shutdown to check for leaks, etc**										
	Core/Sync Idle	23	73.5	257	1049	27	115.4	1.2	859	82
*** Synch & Check E-stop**										
	Sync Idle	17	73.5	192	786	20	86.5	0.9	859	82
*** Additional AVR Commissioning**										
	5%	17	92.8	362	524	13	86.5	1.1	864	113
*** Break-in Run**										
	5%	12	92.8	241	349	8	57.7	0.7	864	113
*** Dynamic Commissioning of AVR & Commission Water**										
Load Step 1	10.00%	6	166	96	400	30	28.8	0.7	868	144
Load Step 2	20.00%	6	246	142	261	15	28.8	1.0	827	195
Load Step 3	30.00%	6	319	185	261	15	28.8	1.3	806	238
Load Step 4	40.00%	6	389	225	231	15	28.8	1.6	785	278
Load Step 5	50.00%	6	457	265	190	16	28.8	1.8	770	316
Load Step 6	60.00%	6	525	304	260	19	28.8	2.1	760	351
Load Step 7	70.00%	6	591	342	356	24	28.8	2.4	752	385
Load Step 8	80.00%	6	659	382	503	30	28.8	2.7	752	415
Load Step 9	90.00%	6	728	421	744	43	28.8	2.9	758	443
Load Step 10	100.00%	6	798	463	1138	69	28.8	3.2	767	470
Subtoal		58		2826	4344	277	288.5	20		
*** Base load AVR Commissioning**										
	100%	23	798	1850	4550	275	115.4	12.9	767	470
COMPLETE - TOTAL ESTIMATED FIRED HOURS										
		150		**5729**	**11603**	**620**	750.0	**37**		

Detailed commissioning emissions provided by GE

Appendix F -CPV SENTINEL ENERGY PROJECT
Reg 13 emissions offset Calculations

		A/N 472139
BY RDO	DATE 10/23/09	

Normal operations (Non-commissioning month)

Tabel 1

Pollutant	CTGs	Fire Pump Engine	Emission offset ratio	Emission Total ERC Required	Note
VOC(lbs/day)	367.60	0	1.2	441.12	ERCs
PM10 (lbs/day	625.84	0	1.2	751.01	Priority Reserve
SOX (lbs/day)	75.68	0	1.2	90.82	Priority Reserve
CO (lbs/day)	1,671.36	0	1.2	-	Offsets not required

Commissioning month

Table 2

Pollutant	CTGs	Fire and Blackstart Engine	Emission offset ratio	Emission Total ERC Required	Note
VOC(lbs/day)	159.87	-	1.2	191.85	ERCs
PM10 (lbs/day	193.55	-	1.2	232.26	Priority Reserve
SOX (lbs/day)	9.45	-	1.2	11.33	Priority Reserve
CO (lbs/day)	2,994.19	0	1.2	0	Offsets not required

Emissions offsets will be based on the values listed in table 1
Note comissioning will be done in one month for each turbine. The turbine will not be allowed to proceed with normal operations until the following month after commissionning is completed

Appendix F -CPV SENTINEL ENERGY PROJECT
NOx RTC Calculations

		A/N 472139
BY RDO	DATE 10/23/09	

Turbines 1 through 8

Data:
Operating Schedule (1st Year):
Startups = 300
Shutdowns = 300
Normal Operations = 2,634 hours/year
Commissioning Period =150 hours
Number of turbines =8

Operating Condition 100	Hours per Year	NOx (lb/hr)	NOx (lb/year) per device	NOx (lb/year) cumulative
CTGs				
Startup	125	59.76	7,470.00	59,760.00
Shutdown	50	34.95	1,747.50	13,980.00
Normal Operation	2,628	7.95	20,892.60	167,140.80
Commissioning	150	38.19	5,728.50	45,828.00
CTG Totals	2,953		35,838.60	286,708.80

Total NOx emissions

				NOx (lb/year) cumulative
CTG 1-5 Totals				286,708.80
Emergency Fire Pump	50	1.55	77.25	77.25
Total 1st Year Emissions (lb/year)				286,786.05
Offset Ratio				1.00
1st year RTCs (lb/year)				286,786.05
2nd year RTCs (lb/year)				240,958.05

Appendix G - CPV SENTINEL ENERGY PROJECT
Emission Factors

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BY RDO	DATE 10/29/08	

Total Hours of Commissioning = 150 hours

Fuel Consumption During the Commissioning Period per Turbine

Commissioning Schedule	Hours per Phase	Heat Input (MMBTU/hr)	Fuel Heating Value (BTU/scf)	Fuel Consumption (MMscf/hr)	Fuel Consumption per Phase (MMscf)	Cumulative Fuel Cons. during Comm. (MMscf)
Phase 1	23	74	1,018	0.0722	1.6606	1.6606
Phase 2	17	74	1,018	0.0722	1.2274	2.8880
Phase 3	17	93	1,018	0.0912	1.5497	4.4377
Phase 4	12	93	1,018	0.0912	1.0939	5.5316
Phase 5	58	4,878	1,018	4.7917	277.9214	283.4530
Phase 6	23	798	1,018	0.7839	18.0295	301.4825

Commissioning Period Emission Factor

Commissioning Schedule	Fuel Consumption per Phase (MMscf)	NOx Emissions per Phase (lb)	NOx EF lb/mmscf	CO Emissions per Phase (lb)	CO EF lb/mmscf
Phase 1	1.6606	257		1,049	
Phase 2	1.2274	192		786	
Phase 3	1.5497	362		524	
Phase 4	1.0939	241		349	
Phase 5	277.9214	2,826		4,344	
Phase 6	18.0295	1,850		4,550	
TOTALS	301.4825	5,728	19.00	11,602	38.48

Commissioning Period Emission Factor

Commissioning Schedule	Fuel Consumption per Phase (MMscf)	VOC Emissions per Phase (lb)	VOC EF lb/mmscf	SOx Emissions per Phase (lb)	SOx EF lb/mmscf
Phase 1	1.6606	27		1	
Phase 2	1.2274	20		1	
Phase 3	1.5497	13		1	
Phase 4	1.0939	8		1	
Phase 5	277.9214	277		20	
Phase 6	18.0295	275		13	
TOTALS	301.4825	620	2.06	37	0.12

Commissioning Period Emission Factor

Commissioning Schedule	Fuel Consumption per Phase (MMscf)	PM10 Emissions per Phase (lb)	PM10 EF lb/mmscf
Phase 1	1.6606	115	
Phase 2	1.2274	87	
Phase 3	1.5497	87	
Phase 4	1.0939	58	
Phase 5	277.9214	288	
Phase 6	18.0295	115	
TOTALS	301.4825	750	2.49

Appendix G - CPV SENTINEL ENERGY PROJECT
Emission Factors

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BY RDO	DATE 10/29/09	

Annual fuel consumption (AFC) during non-commissioning is calculated as follows:
AFC = ((8 CTGs*2803 hr/yr)*(891.7 MMBTU/hr)(1 scf/1,018 BTU) = 19641.93 MMscf/yr

Emissions During the Non-Commissioning Period

Total NOx Emissions (lb/yr)	Total CO Emissions (lb/yr)	Total SOx Emissions (lb/yr)	AFC (MMscf/yr)	NOx EF lb/mmscf	CO EF lb/mmscf
240,881	282,475	13,629	19,642.0	12.2636	14.3812

The total NOx, CO and SOx emissions as well as the AFC are for all 8 CTGs

Emission Factor Determination for Condition A63.1

PM10 EF lb/MMBTU	SOx EF gr/100 scf	VOC EF lb/MMBTU	Grains/lb	Heat Content BTU/scf	PM10 lb/mmscf	SOx lb/mmscf	VOC lb/mmscf
0.0056	0.250	0.0025	7,000	1,018	5.71	0.7143	2.5254

lb/mmbtu based on HHV
PM = 5 lb/hr * (1/891.7 mmbtu/hr) * 1018 btu/ft3 = 5.71 lb/mmcf
VOC = 2.21 lb/hr * (1/891.7 mmbtu/hr) *1018 btu/ft3 = 2.52

Appendix I - CPV SENTINEL ENERGY PROJECT
TAC Emissions

PAGES	PAGE	A/N 450894
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Hazardous Air Pollutant Emissions from The Project

Source	Total Annual HAP Emissions (ton/yr)
Unit 1	0.830
Unit 2	0.830
Unit 3	0.830
Unit 4	0.830
Unit 5	0.830
Unit 6	0.830
Unit 7	0.830
Unit 8	0.830
Fire Pump	neg
Cooling Tower 1-8	0.036
Total all sources	**6.675**

Note: Ammonia and Diesel Particulate are not HAPs
For the CAA112 requirements the combination of all Polyaromatic Hydrocarbons (PAH) will be considered Polycylic Organic Matter (POM), each individual PAH is not a HAP.

Appendix I - CPV SENTINEL ENERGY PROJECT
TAC Emissions

PAGES	PAGE	A/N 450894
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Toxic Air Contaminant Emissions from Each Turbine 1 - 8

Max Fuel Flow (HHV) **891.7 MMBtu/hr**
Maximum annual hours of operation **2803 hr/yr**
includes 2628 hours of normal operations plus 300 startups and 300 shutdowns
Operations Fuel Flow based on the maximum fuel flow (Case 103; 72°F ambient temperature; 100% load with evaporative cooling)

Pollutant	CAS	Emission Factor (lb/MMBtu)	Emission Factor (lb/MMcf)	Emission factor source	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lb/yr)
Ammonia *	7664417			max TBACT level	5.867	1.64E+04
1,3-Butadiene	106990	4.30E-07		AP-42	3.83E-04	1.07E+00
Acetaldehyde	75070	4.00E-05		AP-42	3.57E-02	1.00E+02
Acrolein	107028	3.62E-06		AP-42	3.23E-03	9.05E+00
Benzene	71432	3.26E-06		AP-42	2.91E-03	8.15E+00
Ethylbenzene	100414	3.20E-05		AP-42	2.85E-02	8.00E+01
Formaldehyde	50000	3.60E-04		AP-42	3.21E-01	9.00E+02
Propylene Oxide	75569	2.90E-05		AP-42	2.59E-02	7.25E+01
Toluene	108883	1.30E-04		AP-42	1.16E-01	3.25E+02
Xylenes	1330207	6.40E-05		AP-42	5.71E-02	1.60E+02
PAH						
Benzo(a)anthracene	56553	2.22E-08	2.26E-05	CATEF mean	1.98E-05	5.55E-02
Benzo(a)pyrene	50328	1.37E-08	1.39E-05	CATEF mean	1.22E-05	1.32E-01
Benzo(b)fluoranthene	205992	1.11E-08	1.13E-05	CATEF mean	9.90E-06	2.77E-02
Benzo(k)fluoranthene	207089	1.08E-08	1.10E-05	CATEF mean	9.64E-06	2.70E-02
Chrysene	218019	2.48E-08	2.52E-05	CATEF mean	2.21E-05	6.19E-02
Dibenz(a,h)anthracene	53703	2.31E-08	2.35E-05	CATEF mean	2.06E-05	5.77E-02
Indeno(1,2,3-cd)pyrene	193395	2.31E-08	2.35E-05	CATEF mean	2.06E-05	5.77E-02
Naphthalene	91203	1.63E-06	1.66E-03	CATEF mean	1.45E-03	4.08E+00
Total PAHs (other than naphthalene)					1.15E-04	4.20E-01
Total Annual HAP Emissions per Turbine (ton/yr)						**8.30E-01**

Notes:

- Emission factors obtained from US EPA AP-42 Table 3.1-3 for uncontrolled natural gas-fired stationary turbines. Formaldehyde, Benzene, and Acrolein emission factors are from the Background document for AP-42 Section 3.1, Table 3.4-1 for a natural gas-fired
'combustion turbine with a CO catalyst.
- Emission factors obtained from the CATEF database for natural gas-fired combustion turbines with SCR and CO catalyst.
- Ammonia emission rate based on an exhaust NH_3 limit of 5 ppmv @ 15% O_2 provided by the turbine vendor.
- Used a HHV (Btu/scf) = 1018
* not a CAA112 HAP

Appendix I - CPV SENTINEL ENERGY PROJECT
TAC Emissions

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Toxic Air Contaminant Emissions from Emergency Diesel Firewater Pump

Rated Horsepower	**274**	**BHP**
Expected non-emergency usage	**50**	**hr/yr**

Pollutant	CAS	Emission Factor (Power Output) (g/hp-hr)	Emission factor source	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lb/yr)
Diesel Particulate (PM10)	9901	0.07	Vendor guarantee	0.042	2.112

Appendix I - CPV SENTINEL ENERGY PROJECT
TAC Emissions

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Toxic Air Contaminant Emissions from Cooling Tower Cells 1 - 8

design circulating water rate	6,900	gallons/min	1380
cycles of concentration	6.8		
Drift Eliminator Control	0.000005	=	0.0005 %
Operating hours per year	2,803		
Number of cells in the cooling tower	1		

Toxic Air Contaminant	CAS	TAC Concentration in water[1]		Total tower emissions		Emissions per cell	
		ug/liter	lb/(1000 gallon)	lb/hr	lb/yr	lb/hr	lb/yr
Antimony	7440360	0.34	0.000003	3.99E-08	1.12E-04	3.99E-08	1.12E-04
Arsenic	7440382	2.3	0.000019	2.70E-07	7.57E-04	2.70E-07	7.57E-04
Chlorine	7782505	27000	0.225299	3.17E-03	8.89E+00	3.17E-03	8.89E+00
Chromium	18540299	0.91	0.000008	1.07E-07	3.00E-04	1.07E-07	3.00E-04
Copper *	7440508	0.85	0.000007	9.98E-08	2.80E-04	9.98E-08	2.80E-04
Fluoride *	1101	570	0.004756	6.69E-05	1.88E-01	6.69E-05	1.88E-01
Lead	7439921	0.21	0.000002	2.47E-08	6.91E-05	2.47E-08	6.91E-05
Selenium	7782492	1.3	0.000011	1.53E-07	4.28E-04	1.53E-07	4.28E-04
Silica *	7631869	11000	0.091789	1.29E-03	3.62E+00	1.29E-03	3.62E+00
Sulfate *	9960	8300	0.069259	9.75E-04	2.73E+00	9.75E-04	2.73E+00
Vanadium *	7440622	38.3	0.000320	4.50E-06	1.26E-02	4.50E-06	1.26E-02
Zinc *	7440666	70	0.000584	8.22E-06	2.30E-02	8.22E-06	2.30E-02
Total Annual HAP Emissions (ton/yr)					**4.45E-03**		

Note:
The maximum concentration for each TAC as determined from water samples collected from the existing onsite well.
* not a CAA112 HAP

Appendix J - CPV SENTINEL ENERGY PROJECT
Additional fees calculations

PAGES	PAGE	A/N 450894
BY RDO	DATE 3/05/08	

CPV Sentinel additional fees

A. application no.472139
Turbine no. 1 master file

free hours	8	Per Rule 301(l)(3)(B)
project hours	229	Engineering review time
billed hours	221	review time-8 hrs
fee rate	$ 121.91	Per Rule 301(l)(3)(B)
fee amount	$ 26,942.11	
Max fee per Rule	$ 14,882.78	Per Rule 301(l)(3)(B)
fee due	**$ 14,882.78**	Per Rule 301(l)(3)(B)

Air Quality Analysisi/healt risk assement fees

fee schedule	G	
fee rate	$ 3,771.87	
modeling hrs	100	hours-staff review time
fee rate	$ 107.88	
free hours	35	
billed hours	65	review time- 35 hrs
fee billed	$ 7,012.20	Table IIA, Rule 301
total fee due	**$ 10,784.07**	Table IIA, Rule 301

Title V	$ 14,882.78
modeling/rule 1401	$ 10,784.07
total	**$ 25,666.85**

B. application no.472137
Title V application

Public Notic Fees

Riverside county	**$1,053.57**	Table IIB, Rule 301

Appendix K - CPV SENTINEL ENERGY PROJECT
LMS100 PA Uncontrolled VOC Annual Emissions - Non-Commissioning Year

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/29/09	

Operating Condition 103	Hours per Year	VOC (lbs/hr)	VOC (lbs/year)
Unit 1 Start-Up	125	10.32	1,290
Unit 1 Normal Operation	2,628	5.11	13,429
Unit 1 Shutdown	50	17.48	874
Unit 1 Totals	2,803		15,593
Unit 1 Totals-ton/yr			8

Per GE the max uncontrolled VOC emissions rate is listed at 5.11 lb/hr for Case 100

Appendix L - CPV SENTINEL ENERGY PROJECT
LMS100 PA - 30 Day Averages[1] - Non-Commissioning Year

PAGES	PAGE	A/N 472139
BY RDO	DATE 10/21/09	

Turbine 1-5

	PM10 30-ave	SOx 30-ave	PM10 ERC	SOx ERC
Unit 1	78.23	9.46	93.87	11.36
Unit 2	78.23	9.46	93.87	11.36
Unit 3	78.23	9.46	93.87	11.36
Unit 4	78.23	9.46	93.87	11.36
Unit 5	78.23	9.46	93.87	11.36
total			469.35	58.70
fee rate			$ 50,417.00	$ 15,083.00
Fee total			$ 23,663,462.90	$ 885,372.10

Turbine 6-8

	PM10 30-ave	SOx 30-ave	PM10 ERC	SOx ERC
Unit 6	78.23	9.46	93.87	11.36
Unit 7	78.23	9.46	93.87	11.36
Unit 8	78.23	9.46	93.87	11.36
total			281.61	35.22
fee rate			$ 92,000.00	$ 34,400.00
fee total			$ 25,908,387.10	$ 1,211,568.00

fee totals

	Mitigation fee
PM!10	$ 49,571,850.00
SOx	$ 2,096,940.10
total	**$ 51,668,790.10**

APPENDIX A

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

MEMORANDUM

DATE: November 13, 2009

TO: Mike Mills

FROM: Naveen Berry

SUBJECT: Review of an Air Quality Analysis and a Health Risk Assessment for Amendment to Permit to Construct/Permit to Operate Application for the CPV Sentinel Energy Project (A/N's 472139 thru 472158)

As you requested, Planning, Rule Development & Area Sources (PRA) staff reviewed the air quality analysis and the health risk assessment (HRA) for the proposed project by CPV Sentinel (CPVS) located in Riverside County (A/N's 472139 thru 472158). The project was previously reviewed by PRA staff and found to be in compliance with Rules 1303 and 1401. However, there have been changes to the project, such as a reduction in the maximum operating hours for three turbines, replacement of the 3-cell and 5-cell cooling towers with 8 single-cell towers located adjacent to the individual turbines, elimination of the black start engine, and a reduction in the guaranteed PM_{10} emission rate for the turbines to 5 lb/hr. Therefore, the air quality analysis and HRA were revised to reflect these changes and the report (dated October 15, 2009 and revised on November 12, 2009) was submitted along with a DVD containing electronic files. PRA staff reviewed the air quality analysis and HRA and our comments are as follows:

- **AERMOD Modeling for the Air Quality Analysis**
  - ✓ The applicant used EPA AERMOD model (version 07026) with appropriate model options in their modeling analysis for NO_2, CO, PM_{10}, and SO_2.
  - ✓ The source parameters are consistent with those listed in Table 4-4 and are assumed to be correct.
  - ✓ The receptor grid spacing and the area covered are adequate to determine the maximum impacts from the facility.
  - ✓ The applicant used four years (1998 through 2001) of meteorological data in their modeling applications. The AERMOD model requires both surface and upper air meteorological data in the modeling applications. The National Weather Service (NWS) surface data at Dagget-Barstow station were used with wind data from the Wintec Wind Energy facility. The wind data at Wintec facility were processed as on-site data since it is adjacent to the proposed project site. The upper air data were obtained from the Desert Rock station in Nevada because it has the best data coverage for the modeling application. These meteorological data are appropriate for the facility impact area.
  - ✓ BPIP-PRIME was used to generate the parameters used in the AERMOD model for building downwash effects.
  - ✓ The AERMOD modeling conforms to the District's dispersion modeling requirements.

- **Application of AERMOD Model Output for the Air Quality Analysis**
  - ✓ The applicant estimated the air quality impacts for the total project (eight turbines, one fire pump engine, and eight cooling towers (for PM_{10} analysis only)). The applicant used the highest monitoring data from 2004 through 2006 (these were the most recent three years when the original application was submitted) for the applicable monitoring stations (Palm Springs, Indio, and Riverside-Rubidoux) to determine the background concentrations for each criteria pollutant. The predicted modeling results were added to the background concentrations for comparison to the ambient air quality standards.
  - ✓ The applicant estimated the air quality impacts for many scenarios which included the commissioning, startup, normal operation, and shutdown phases. The worst-case scenario was identified for each pollutant and each averaging period. The air quality analysis estimated the total project impact; therefore, the impact for each individual permit unit will be less than the total project impacts identified.
  - ✓ The model results for NO_2, SO_2, CO, and PM_{10} analysis for the proposed project are presented in Table 4-5 of the report. PRA staff reproduced selected modeling scenarios and confirmed that the information provided in Table 4-5 is consistent with the model output files. PRA staff results are presented below.
  - ✓ The peak 1-hour NO_2 impact for the total project plus background concentrations is 287 $\mu g/m^3$. The peak annual NO_2 impact for the total project plus background is 25.3 $\mu g/m^3$. These impacts are less than the state 1-hour NO_2 standard of 339 $\mu g/m^3$ and the state annual NO_2 standard of 57 $\mu g/m^3$.
  - ✓ The peak 1-hour and 8-hour CO impacts for the total project plus background concentrations are 2,815 $\mu g/m^3$ and 976.4 $\mu g/m^3$, respectively. These impacts are less than the state and federal 1-hour and 8-hour CO standards of 23,000 $\mu g/m^3$ and 10,000$\mu g/m^3$, respectively.
  - ✓ Background PM_{10} air quality in the impact area exceeds the state 24-hour and annual PM_{10} standards; therefore, project increments are compared to the Rule 1303 significance thresholds in Table A-2. The peak 24-hour PM_{10} impact from the total project is 13.9 $\mu g/m^3$ and the peak impact from an individual permit unit is 1.99 $\mu g/m^3$. The annual PM_{10} impact for the total project is 0.59 $\mu g/m^3$. These impacts are less than the Rule 1303 PM_{10} 24-hour and annual significance thresholds of 2.5 $\mu g/m^3$ and 1.0 $\mu g/m^3$, respectively, for an individual permit unit.

- **PSD Analyses**
  - ✓ The applicant estimated the emissions from the proposed project for NO_2, CO, PM_{10}, and SO_2. The emission summary is provided in Table 4-2 of the report. It has been determined that the proposed project is not subject to PSD Rule requirements since none of the criteria emissions are greater than the PSD threshold of 250 tons per year.

- **Visibility Analyses**
  - ✓ The visibility analysis was not revised. The revisions to the project will result in the short-term project emissions to be either at the same level or less than what was previously analyzed. The second largest source of combustion pollutant emissions was the blackstart engine, which has been removed from the project. The PM_{10} emissions from the cooling towers are less than the emissions originally included. Therefore, the visibility impacts from the revised project are less than the PLUVUE II impacts contained in the original report.

- **ISCST3 Modeling for the Health Risk Assessment**
  - ✓ The applicant used EPA ISCST3 model (version 99155) in their modeling analysis. (This is the version of ISCST3 used in HARP.)
  - ✓ The source parameters are assumed to be correct.
  - ✓ The receptor grid spacing and the area covered are adequate to determine the maximum impacts from the facility.
  - ✓ The applicant used the same meteorological data which is used in the air quality analysis.
  - ✓ The ISCST3 modeling conforms to the District's dispersion modeling procedures.

- **Application of HARP for the Health Risk Impacts**
  - ✓ The applicant performed the risk assessment with the Hot Spots Analysis and Reporting Program (HARP, version 1.4a). The District HRA procedures require HARP to be used in Tier 4 risk assessments.
  - ✓ The applicant estimated the health risk values for the total project (a total of 17 emission sources including eight turbines, eight cooling towers, and one fire pump engine).
  - ✓ The peak cancer risks for the total project at all receptors is 0.5 in one million. The peak acute and chronic hazard indices for the total project are 0.1 and 0.008, respectively. These total facility risks are less than the Rule 1401 cancer and non-cancer permit limits of 10 in one million and hazard index of 1, respectively.

Modeling staff spent a total of 30 hours on this review. Please direct any questions to Thomas Chico at ext. 3149.

TC:JB

cc: Roy Olivares

APPENDIX N

Emissions Offset Evaluation Prepared for

Addendum to Determination of Compliance Submitted to CEC

CPV Sentinel Energy Project

(March 2, 2010)

This document is being submitted by the South Coast Air Quality Management District (AQMD) as part of its Determination of Compliance (DOC) for the CPV Sentinel Energy Project (CPV Sentinel). Under federal, state and local laws, rules and regulations, it is required that emission increases of specified nonattainment air contaminants and their precursors be offset for the CPV Sentinel. This evaluation is done pollutant specific for compliance with local, state and federal laws based on AQMD Regulations XIII (Rule 1303) and XX (Rule 2005); the federal Clean Air Act and NSR Regulations; and State of California Clean Air Act No Net Increase and Assembly Bill (AB) 1318 provisions.

Emission offsets for Volatile Organic Compounds (VOCs) will be provided by CPV Sentinel in the form of Emission Reduction Credits (ERCs) purchased by CPV Sentinel in the open market pursuant to AQMD Regulation XIII (Rule 1303). Emission offsets for Nitrogen Oxides (NOx) will also be provided by CPV Sentinel in the form of RECLAIM Trading Credits (RTCs) purchased by CPV Sentinel in the open market pursuant to AQMD Regulation XX (Rule 2005). Emission offsets for Sulfur Oxides (SOx) and Particulate Matter-less than 10 micron in diameter- (PM10) will be provided by AQMD from offset credits pursuant to AB 1318 (Health & Safety Code Section 40440.14(a)). CPV Sentinel will pay AQMD mitigation fees for SOx and PM10 offsets, which in turn AQMD will invest in emission reduction projects pursuant to AB 1318. Emission offsets for Carbon Monoxide (CO) and Particulate Matter-less than 2.5 micron in diameter- (PM2.5) are not required, since the Salton Sea Air Basin (SSAB), where CPV Sentinel is to be located, is not classified as nonattainment with respect to CO or PM2.5.

The CPV offset evaluation for SOx and PM10, which is provided under this DOC to CEC, pursuant to AB 1318 (Health & Safety Code Section 40440.14(c)), will also be submitted to the U.S. Environmental Protection Agency (EPA) for approval and inclusion into the State Implementation Plan (SIP). Table 1 below shows the CPV Sentinel emissions and the source of offsets for each air contaminant. Emissions in the first year are higher due to initial commissioning of the CPV Sentinel power plant.

Table 1 – Maximum Emissions and Offsets		
Pollutant	**Maximum Emissions Needing Offsets**	**Offset Source**
VOC	441 lbs/day*	ERCs – supplied by CPV Sentinel, LLC.
NOx	Commissioning Year RTCs – 286,786.05 lbs/year Other Years RTCs – 240,958.05 lbs/year	RTCs – supplied by CPV Sentinel, LLC.
SOx	Commissioning Year – 13,928 lbs/year Other Years – 13,560 lbs/year	AQMD's internal offset accounts, per AB1318.
PM10	Commissioning Year –118,120 lbs/year Other Years – 112,180 lbs/year	
CO	Worst case – 188 tons/year	Not Nonattainment pollutant in SSAB. Offsets not required.**
PM2.5	Worst case*** – 59.06 tons/year	Not Nonattainment pollutant in SSAB. Offsets not required.****

*Includes 1.2-to-1.0 offset ratio, as per Rule 1303(b)(2)(A.)

** SSAB is not classified as Nonattaiment for federal and state ambient air quality standards for CO. (SSAB is classified as Attainment for state and is Unclassified/Attainment for federal.) Therefore, no CO offsets are required. The worst case maximum yearly CO emission of 188 tons/year is below the 250 ton/year threshold for Prevention of Significant Deterioration (PSD) as specified by Rule 1701(b)(2). Therefore, does not require a PSD permit.

***Assuming all (100%) of PM10 emissions are PM2.5.

****SSAB is not classified as Nonattainment for federal and state ambient air quality standards for PM2.5. (SSAB is Unclassified for state and Unclassified/Attainment for federal.) Therefore, no PM2.5 offsets are required. The worst case maximum yearly PM2.5 emission of 59.06 tons/year is below the 250 ton/year threshold for PSD and, therefore, it does not require a PSD permit.

VOC Emissions

The CPV Sentinel project complies with all of the VOC offset requirements (at a 1.2-to-1.0 offset ratio) through CPV Sentinel providing VOC ERCs prior to issuance of the PC, as specified in AQMD Rule 1303(b)(2). As shown in Table 2 below, CPV Sentinel has already purchased adequate amounts of VOC ERCs to offset 412 lbs/day of VOC emissions and will provide an additional 29 lbs/day of VOC ERCs prior to issuance of the final Title V permit to cover the maximum offset liability of 441 lbs/day of VOC emissions (see Table 1 above).

Table 2 – Maximum VOC Emission Rates and Offsets		
ERC Certificate No.	**ERC Certificate Registered Owner**	**ERC Certificate Amount (lbs/day)**
AQ007877	Tenasko	348
AQ007879	Tenasko	64
	Total Amounts of VOC ERCs Provided	412
	Additional VOC ERCs to be Provided	29
	Total Emissions & VOC ERCs	441

NOX Emissions

The CPV Sentinel project complies with all of the NOx offset requirements (at a 1.0-to-1.0 offset ratio) through requiring CPV Sentinel to hold sufficient NOx RTCs to offset the annual emission increase for the first year of operation prior to commencement of initial operation, as specified in Rule 2005(b)(2). AQMD provides a programmatic demonstration, as approved by EPA, in March of each year in its Annual RECLAIM Audit report to the Governing Board that the 1.2 to 1 offset ratio required by federal law is met on an aggregate basis for RECLAIM new and modified sources. CPV Sentinel shall also, at the commencement of each subsequent compliance year, hold NOx RTCs equal to the amount required by permit conditions, as specified in Rule 2005(f)(1).

CO Emissions

The CPV Sentinel project complies with the CO offset requirements on the basis that the SSAB is not classified as "Nonattainment" for federal and state ambient air quality standards for CO. (SSAB is classified as Attainment for state and Unclassified/Attainment for federal.) Therefore offsets are not required. Also the maximum worst case yearly CO emission is 188 tons/year, which is below the PSD threshold of 250 tons/year. Therefore, no PSD permit is required.

PM2.5 Emissions

The CPV Sentinel project complies with the PM2.5 offset requirements on the basis that the SSAB is not classified as "Nonattainment" for federal and state ambient air quality standards for PM2.5. (SSAB is Unclassified for state and Unclassified/Attainment for federal.) Therefore, offsets are not required. Also the maximum worst case yearly PM2.5 emission, even assuming that all (100%) of the PM10 emissions are PM2.5, is 59.06 tons/year, which is below the PSD threshold of 250 tons/year. Therefore, no PSD permit is required.

PM10 and SOx Emissions

Emission Offsets - The SSAB is attainment with both federal and state SO2 and Sulfate ambient air quality standards, as applicable. However, SO2 is also considered a precursor to PM10. Presently the SSAB is still designated as "Nonattainment" with both federal and state PM10 ambient air quality standards.

CPV Sentinel is obtaining offsets for both PM10 and SOx from the AQMD internal bank pursuant to AB 1318. Under federal law any required PM10 and SOx offsets have to be provided at an offset ratio of 1.0-to-1.0. In addition, California state law offset requirements, if applicable to any project, requires actual (not maximum potential) emissions to be offset at the same 1.0-to-1.0 offset ratio as the actual emissions. Therefore, the maximum amount of offsets that are being provided for the CPV Sentinel project's emissions in the initial commissioning year[1] are 118,120 lbs/year and 13,928 lbs/year of PM10 and SOx, respectively, as shown earlier in Table 1. These amounts of offsets are obtained by CPV Sentinel and provided by AQMD from AQMD's internal emission credit accounts pursuant to AB 1318.

In Attachment I, AQMD has provided an internal emission offset account tracking system pursuant to AB 1318. The amounts of emission offsets presently deposited by AQMD in the AB 1318 tracking system cover the amounts needed by CPV Sentinel (please see Attachment 1). As indicated earlier, the offset evaluations for PM10 and SOx and the AB 1318 tracking system will also be submitted to EPA in the form of a SIP revision.

Redesignation & Maintenance Plan – Although CPV Sentinel is obtaining and AQMD is providing emission offsets for PM10 and SOx (as precursor to PM10), the AQMD and CARB Governing Boards have already approved the SSAB PM10 Redesignation and Maintenance Plan (RMP) for submittal to EPA for inclusion into the SIP. Under federal NSR offsets are required prior to start of operation. Upon EPA's approval of this RMP and redesignation of SSAB as attainment with federal PM10 NAAQS, this project will not be subject to the Nonattainment federal NSR requirements and will not be required to provide any PM10 or SOx offsets to meet federal requirements.

In addition, the CPV Sentinel project maximum worst case year (i.e. the initial commissioning year) PM10 emissions are 118,120 lbs/year (or 59.06 tons/year). The federal Major Source threshold for PM10 offsets is 70 tons/year, below which no offsets are required under federal NSR regulations. Although the CPV Sentinel project maximum potential to emit PM10 emissions are below the federal Major Source threshold for offsets, CPV Sentinel is obtaining offsets for both PM10 and SOx from the AQMD internal bank pursuant to AB 1318.

[1] Although the amount of maximum annual emissions after the initial commissioning and start up are 112,180 lbs/year of PM10 and 13,560 lbs/year of SOx, the amount of offsets that are provided from AQMD's internal offset account for the CPV Sentinel project are to offset the commissioning year's emissions of 118,120 lbs/year and 13,928 lbs/year of PM10 and SOx, respectively. This is the maximum worst case, because it assumes that all eight gas turbines are commissioned and started up in the same year.

Attachment I

Assembly Bill (AB) 1318 – Tracking System

OBJECTIVES:
AB 1318, which went into effect on January 1, 2010, requires AQMD, upon making a specified finding, to transfer SOx and PM10 emission offsets from its internal offset accounts to eligible electric generating facilities. In implementing this emission offset transfer, AB 1318 requires AQMD to rely on the internal offset tracking system used prior to adoption of Rule 1315 or a new tracking system approved by EPA. Therefore, this new AB 1318 offset tracking system will be submitted to EPA for approval and inclusion into the SIP.

AB 1318 PROVISIONS:
The specified findings required to be made in order to determine whether or not an electrical generating facility is eligible to receive emission offsets from AQMD's internal offset account are as follows:

- **"In order to be eligible for emission reduction credits pursuant to this section, an electrical generating facility shall meet all of the following requirements:"** [Health & Safety Code Section 40440.14(d)]
    - **"Be subject to the permitting jurisdiction of the State Energy Resources Conservation and Development Commission."** [Health & Safety Code Section 40440.14(d)(1)]
    - **"Have a purchase agreement, executed on or before December 31, 2008, to provide electricity to a public utility, as defined in Section 216 of the Public Utilities Code, subject to regulation by the Public Utilities Commission, for use within the Los Angeles Basin Local Reliability Area."** [Health & Safety Code Section 40440.14(d)(2)]
    - **"Be under the jurisdiction of the south coast district, but not within the South Coast Air Basin."** [Health & Safety Code Section 40440.14(d)(3)]

AQMD's requirements for implementation of the emission offset credit transfer from its internal offset credit account and offset tracking system, as specified in AB1318, are as follows:

- **"The executive officer of the south coast district, upon finding that the eligible electrical generating facility proposed for certification by the State Energy Resources Conservation and Development Commission meets the requirements of the applicable new source review rule and all other applicable district regulations that must be met under Section 1744.5 of Title 20 of the California Code of Regulations, shall credit to the south coast district's internal emission credit accounts and transfer from the south coast district's internal emission credit accounts to eligible electrical generating facilities emission credits in the full amounts needed to issue permits for eligible electrical generating facilities to meet requirements for sulfur oxides (SOx) and particulate matter (PM2.5 and PM10) emissions."** [Health and Safety Code Section 40440.14(a)]

- In implementing this permitting action, **"the south coast district shall rely on the offset tracking system used prior to the adoption of Rule 1315 of the south coast district until a new tracking system is approved by the United States Environmental Protection Agency and is in effect, at which point that new system shall be used by the south coast district."** [Health & Safety Code Section 40440.14(b)(1)]
- **"In addition to using the prior offset tracking system, the district shall also make use of any emission credits that have resulted from emission reductions and shutdowns from minor sources since 1990. The district shall make any necessary submissions to the United States Environmental Protection Agency with regard to the crediting and use of emission reductions and shutdowns from minor sources."** [Health & Safety Code Section 40440.14(b)(2)]

In addition, AQMD is required to report the emission offsets to CEC as follows:

- **"Within 60 days of the effective date of this section, for each eligible electrical generating facility, the south coast district shall report to the State Energy Resources Conservation and Development Commission the emission credits to be credited and transferred pursuant to subdivision (a). The State Energy Resources Conservation and Development Commission shall determine whether the emission credits to be credited and transferred satisfy all applicable legal requirements. In the exercise of its regulatory responsibilities under its power facility and site certification authority, the State Energy Resources Conservation and Development Commission shall not certify an eligible electrical generation facility if it determines that the credit and transfer by the south coast district do not satisfy all applicable legal requirements."** [Health & Safety Code Section 40440.14(c)]

Finally, the transfer of offsets to an electrical generating facility is subject to the following:

- **"The executive officer shall not transfer emission reduction credits to an electrical generating facility pursuant to this section until the receipt of payment of the mitigation fees set forth in the south coast district's Rule 1309.1, as adopted on August 3, 2007. The mitigation fees shall only be used for emission reduction purposes. The south coast district shall ensure that at least 30 percent of the fees are used for emission reductions in areas within close proximity to the electrical generating facility and at least 30 percent are used for emission reductions in areas designated as "Environmental Justice Areas" in Rule 1309.1."** [Health & Safety Code Section 40440.14(e)]

AB 1318 TRACKING SYSTEM:

For the purposes of AB 1318 Tracking System, AQMD has identified a series of emission offsets for PM10 and SOx which have been created as a result of reductions from permitted equipment that permanently ceased operation in AQMD. These offsets all meet the integrity criteria for qualifying as offsets, meaning they are all Real, Permanent, Quantifiable, Enforceable and Surplus. These offsets are all result of emission reductions from permitted equipment that permanently ceased operation in AQMD and the AQMD has not issued any ERCs to the companies who operated the equipment as a result of the

reductions. These PM10 and SOx offsets have been removed from the AQMD's internal offset accounts and have not been used by any other source permitted by AQMD.

The amounts of emission offsets are based on actual PM10 and SOx emissions reported to AQMD under AQMD's Annual Emissions Reporting Program. In addition, for each source of credit, the equipment has been shutdown and the permits have been inactivated by AQMD. The emission reductions have occurred during the calendar years 2002 and 2008 for PM10 credits and during the period of calendar years 2002 through 2006 for SOx credits.

Tables A and B below include a listing of the PM10 and SOx offsets, respectively, deposited in the AB 1318 Tracking System for use by electrical generating facilities eligible to use the offsets pursuant to AB 1318 requirements. Tables A and B below show the PM10 and SOx offsets in the AB 1318 Tracking System available for use by eligible electric generating facilities. These offsets are available for transfer to any electrical generating facility which is eligible to obtain offsets from AQMD and upon receipt of payment of mitigation fees set forth in AQMD's Rule 1309.1, as adopted on August 3, 2007, pursuant to AB 1318.

Table A - PM10 Reductions from Sources Which Ceased Operation

Company Name	Location	Equipment Description	Emission Credits (lb/year)
AAA GLASS CORP	LOS ANGELES	GLASS MELTING FURNACE	1,877.8
AES ALAMITOS, LLC	LONG BEACH	TURBINE ENGINE - NATURAL GAS/OIL	604.8
AES ALAMITOS, LLC	LONG BEACH	TURBINE ENGINE - NATURAL GAS/OIL	604.8
AES ALAMITOS, LLC	LONG BEACH	TURBINE ENGINE - NATURAL GAS/OIL	604.8
AES ALAMITOS, LLC	LONG BEACH	TURBINE ENGINE - NATURAL GAS/OIL	604.8
AES HUNTINGTON BEACH, LLC	HUNTINGTON BEACH	TURBINE ENGINE - NATURAL GAS/OIL	1,417.2
AES HUNTINGTON BEACH, LLC	HUNTINGTON BEACH	TURBINE ENGINE - NATURAL GAS/OIL	1,417.2
AES HUNTINGTON BEACH, LLC	HUNTINGTON BEACH	TURBINE ENGINE - NATURAL GAS/OIL	1,417.2
ANAHEIM MARRIOTT HOTEL	ANAHEIM	BOILER - NATURAL GAS	20.4
ANAHEIM MARRIOTT HOTEL	ANAHEIM	BOILER - NATURAL GAS	20.4
ANAHEIM MARRIOTT HOTEL	ANAHEIM	BOILER - NATURAL GAS	19.3
ANAHEIM MARRIOTT HOTEL	ANAHEIM	BOILER - NATURAL GAS	19.3
ASSOCIATED READY MIXED CONCRETE INC	CORONA	CONCRETE BATCH EQUIPMENT	27.4
ASTECHENGINEEREDPRODUCTSINC.	SANTA ANA	ABRASIVE BLASTING - OPEN	16.0
AURORA MODULAR INDUSTRIES	MORENO VALLEY	OPEN SPRAY EQUIPMENT	451.4
AURORA MODULAR INDUSTRIES	MORENO VALLEY	OPEN SPRAY EQUIPMENT	451.4
AURORA MODULAR INDUSTRIES	MORENO VALLEY	OPEN SPRAY EQUIPMENT	451.4
AURORA MODULAR INDUSTRIES	MORENO VALLEY	OPEN SPRAY EQUIPMENT	451.4
AURORA MODULAR INDUSTRIES	MORENO VALLEY	OPEN SPRAY EQUIPMENT	451.4
BLACKHAWK FURNITURE, INC	RIVERSIDE	SPRAY BOOTH	604.0
BOCCHI LABORATORIES INC	WALNUT	BOILER - NATURAL GAS	87.6
CALIFORNIA PORTLAND CEMENT CO	SAN JUAN CAPISTRANO	CEMENT STORAGE SILO	12.0
CBS INC	LOS ANGELES	BOILER - NATURAL GAS/OIL	89.6
CBS INC	LOS ANGELES	BOILER - NATURAL GAS/OIL	89.6
CENTURY RIM CORP	BREA	BAKERY OVEN	32.1
CENTURY RIM CORP	BREA	SPRAY BOOTH	5,272.0
CHANDLER AGGREGATES	CORONA	AGGREGATE PRODUCTION	1,411.2
CLEAN STEEL INC	LONG BEACH	MATERIAL SIZE REDUCTION	4,112.5
CMC PRINTED BAG INC	WHITTIER	AFTERBURNER	29.0
COLOR MASTER PRINTEX, INC	VERNON	TENTER FRAME OVEN	75.6
COLOR MASTER PRINTEX, INC	VERNON	BOILER - NATURAL GAS	75.6

Company Name	Location	Equipment Description	Emission Credits (lb/year)
COLOR MASTER PRINTEX, INC	VERNON	BOILER - NATURAL GAS	75.6
COLORGRAPHICS	LOS ANGELES	PRINTING PRESS - HEAT SET	5.0
COLORGRAPHICS	LOS ANGELES	PRINTING PRESS - HEAT SET	5.0
COLORGRAPHICS	LOS ANGELES	PRINTING PRESS - HEAT SET	5.0
COLORGRAPHICS	LOS ANGELES	AFTERBURNER	5.0
COMMONWEALTH ALUMINUM CONCAST INC	TORRANCE	COATING EQUIPMENT WITH AFTERBURNER	671.7
CREST GRAPHICS INC	COMMERCE	PRINTING PRESS WITH AFTERBURNER	48.7
CREST GRAPHICS INC	COMMERCE	DRYING OVEN WITH AFTERBURNER	77.0
DIAMOND PACIFIC PRODUCTS CO	PERRIS	BOILER - NATURAL GAS	92.8
DOUGLAS FURNITURE OF CALIFORNIA LLC	REDONDO BEACH	BOILER - WOOD FIRED WITH BAGHOUSE	32.5
DYNAMITE INC	DIAMOND BAR	PORTABLE DIESEL ICE	1,704.0
DYNAMITE INC	DIAMOND BAR	PORTABLE DIESEL ICE	1,118.0
EL CAMINO COLLEGE	TORRANCE	BOILER - NATURAL GAS	192.0
ELSINORE READY-MIX CO INC	LAKE ELSINORE	AGGREGATE SIZE REDUCTION	13.7
EQUITABLE REAL EST/COMPASS MGMT LEASING	IRVINE	BOILER - NATURAL GAS	4.9
FALCON FOAM, A DIV OF ATLAS ROOFING CORP	LOS ANGELES	BOILER - NATURAL GAS	293.1
FALCON FOAM, A DIV OF ATLAS ROOFING CORP	LOS ANGELES	AFTERBURNER	230.2
FORD AUTO BODY INC	SAN FERNANDO	SPRAY BOOTH	6.0
FS PRECISION TECH LLC	COMPTON	ABRASIVE BLASTING CABINET	77.2
FS PRECISION TECH LLC	COMPTON	ABRASIVE BLASTING CABINET	30.3
FS PRECISION TECH LLC	COMPTON	ABRASIVE BLASTING CABINET	30.3
FS PRECISION TECH LLC	COMPTON	ABRASIVE BLASTING CABINET	30.3
GREAT AMERICAN PICTURE FRAME CO	LOS ANGELES	OPEN SPRAY EQUIPMENT	104.5
GREAT AMERICAN PICTURE FRAME CO	LOS ANGELES	SPRAY BOOTH	104.5
GREAT AMERICAN PICTURE FRAME CO	LOS ANGELES	OPEN SPRAY EQUIPMENT	104.5
HOLGA INC	VAN NUYS	PAINT BURNOFF FURNACE	18.6
HONEYWELL INTERNATIONAL INC	TORRANCE	JET ENGINE TEST EQUIPMENT	59.0
INTERMETRO INDUSTRIES CORP	RANCHO CUCAMONGA	HEAT TREATING FURNACE	65.0
INTERMETRO INDUSTRIES CORP	RANCHO CUCAMONGA	NICKEL PLATING TANK	17.0
INTERMETRO INDUSTRIES CORP	RANCHO CUCAMONGA	BOILER - NATURAL GAS	87.5
INTERSTATE BRANDS CORP/DICARLO	SAN PEDRO	BAKERY OVEN	131.2
INTERSTATE BRANDS CORP/DICARLO	SAN PEDRO	BAKERY OVEN	133.5

Company Name	Location	Equipment Description	Emission Credits (lb/year)
INTERSTATE BRANDS CORP/DICARLO	SAN PEDRO	BAKERY OVEN	93.0
INTERSTATE BRANDS CORP/DICARLO	SAN PEDRO	BOILER - NATURAL GAS	109.0
KMC WHEEL CO INC	RIVERSIDE	ALUMINUM FURNACE	2,940.8
KRACO ENTERPRISES INC	COMPTON	BOILER - OIL	429.5
KRAFT FOODS NORTH AMERICA/NABISCO DIV	BUENA PARK	BAKERY OVEN	110.1
KRAFT FOODS NORTH AMERICA/NABISCO DIV	BUENA PARK	BAKERY OVEN	110.1
KRAFT FOODS NORTH AMERICA/NABISCO DIV	BUENA PARK	BAKERY OVEN	110.1
LITHOGRAPHIX INC	LOS ANGELES	AFTERBURNER	15.0
LITTLE COMPANY OF MARY HOSPITAL	TORRANCE	BOILER - NATURAL GAS/OIL	404.7
LONG BEACH AQUARIUM OF THE PACIFIC	LONG BEACH	HEATER/FURNACE - NATURAL GAS	301.3
MATTHEWS INTERNATIONAL CORP	ROMOLAND	FOUNDRY SAND STORAGE WITH BAGHOUSE	9,460.5
MOUNTAINVIEW GENERATING STATION	REDLANDS	UTILITY BOILER - NATURAL GAS/OIL	3,365.5
MOUNTAINVIEW GENERATING STATION	REDLANDS	UTILITY BOILER - NATURAL GAS/OIL	3,365.5
NEVILLE CHEM CO	ANAHEIM	CHEMICAL STORAGE TANK	268.4
NEVILLE CHEM CO	ANAHEIM	BOILER - NATURAL GAS	239.7
OLDCASTLE WESTILE, INC.	CORONA	CEMENT SLURRY SYSTEM	2,111.0
ONE WILSHIRE, CARLYLE ONE WILSHIRE, LLC	LOS ANGELES	BOILER - NATURAL GAS	19.1
ONTARIO SANDBLASTING CO	ONTARIO	ABRASIVE BLASTING CABINET	12.8
ONTARIO SANDBLASTING CO	ONTARIO	ABRASIVE BLASTING CABINET WITH BAGHOUSE	12.8
ONTARIO SANDBLASTING CO	ONTARIO	ABRASIVE BLASTING CABINET WITH BAGHOUSE	12.8
ORTIZ ENTERPRISES INC	VARIOUS LOCATIONS	AGGREGATE CRUSHING SYSTEM	1,233.0
PACIFIC SUN CASUAL FURN DIV OF PAC OUTDO	HEMET	POWDER COATING SPRAY BOOTH	30.0
PARADISE TEXTILE CO	CHINO	HEATER/FURNACE - NATURAL GAS	1,109.5
PLASTI PERSONALITIES INC	HARBOR CITY	BOILER - NATURAL GAS	9.4
POLYCLAD LAMINATES INC	SANTA ANA	BOILER - NATURAL GAS	291.6
POLYCLAD LAMINATES INC	SANTA ANA	BOILER - NATURAL GAS	291.6
PRATT & WHITNEY ROCKETDYNE, INC.	CANOGA PARK	BOILER - NATURAL GAS	30.5
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	TURBINE ENGINE - NATURAL GAS/OIL	1,959.1
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	TURBINE ENGINE - NATURAL GAS/OIL	1,959.1
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	TURBINE ENGINE - NATURAL GAS/OIL	1,959.1
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	TURBINE ENGINE - NATURAL GAS/OIL	1,959.1

Company Name	Location	Equipment Description	Emission Credits (lb/year)
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	UTILITY BOILER - NATURAL GAS/OIL	33,079.3
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	UTILITY BOILER - NATURAL GAS/OIL	33,079.3
SCHEU MANUFACTURING COMPANY	RANCHO CUCAMONGA	CURING OVEN	13.0
SHAWCOR PIPE PROTECTION LLC.	FONTANA	ABRASIVE BLASTING - OPEN	7,677.0
SMURFIT-STONE CONTAINER ENTERPRISES	SANTA FE SPRINGS	BOILER - NATURAL GAS/LPG	237.0
STATEWIDE SANDBLASTING	VARIOUS LOCATIONS	ABRASIVE BLASTING - OPEN	2,313.0
SUNLAW COGENERATION PARTNERS I	VERNON	TURBINE ENGINE - NATURAL GAS	1,295.4
SUNLAW COGENERATION PARTNERS I	VERNON	TURBINE ENGINE - NATURAL GAS	2,467.4
TABC, INC	LONG BEACH	CURING OVEN	121.5
TELAIR INTERNATIONAL	RANCHO DOMINGUEZ	SPRAY BOOTH	69.5
THE BOEING COMPANY	SEAL BEACH	EMERGENCY ICE - DIESEL FIRE PUMP	868.0
TREND OFFSET PRINTING SERVICES, INC	LOS ALAMITOS	AFTERBURNER	42.0
UNIVERSAL DIE CASTING CO	VERNON	BRASS CRUCIBLE	370.5
US POSTAL SERVICE, SANTA CLARITA CENTER	SANTA CLARITA	HEATER/FURNACE - NATURAL GAS	66.0
VALMONT COATINGS, CALWEST GALV	LONG BEACH	PORTABLE DIESEL ICE	2.7
VOUGHT AIRCRAFT INDUSTRIES	HAWTHORNE	BOILER - NATURAL GAS	51.0
WEBB-MASSEY CO INC	ORANGE	SPRAY BOOTH	572.7
WEBB-MASSEY CO INC	ORANGE	SPRAY BOOTH	572.7
WHITEWATER ROCK & SUPPLY CO	WHITE WATER	ROCK CRUSHING SYSTEM	1,460.0
WINGS WEST INC	SANTA ANA	SPRAY BOOTH	498.0
WINGS WEST INC	SANTA ANA	SPRAY BOOTH	498.0
WINGS WEST INC	SANTA ANA	SPRAY BOOTH	498.0
WOODARD, LLC.	ONTARIO	POWDER COATING OVEN	10.2
WOODARD, LLC.	ONTARIO	DRYING OVEN	5.1
		Total	**148,582.7**

Table B - SOx Reductions from Sources Which Ceased Operation

Company Name	Location	Equipment Description	Emission Credits (lb/year)
AAA GLASS CORP	LOS ANGELES	GLASS MELTING FURNACE	6,295.4
AES ALAMITOS, LLC	LONG BEACH	TURBINE ENGINE - NATURAL GAS/OIL	108.0
AES ALAMITOS, LLC	LONG BEACH	TURBINE ENGINE - NATURAL GAS/OIL	108.0
AES ALAMITOS, LLC	LONG BEACH	TURBINE ENGINE - NATURAL GAS/OIL	108.0
AES ALAMITOS, LLC	LONG BEACH	TURBINE ENGINE - NATURAL GAS/OIL	108.0
CBS INC	LOS ANGELES	BOILER - NATURAL GAS/OIL	7.1
CBS INC	LOS ANGELES	BOILER - NATURAL GAS/OIL	7.1
CENTURY RIM CORP	BREA	BAKERY OVEN	3.5
COLOR AMERICA TEXTILE PROCESSING INC	LOS ANGELES	CARPET PROCESSING SYS WITH ESP	3.3
EL CAMINO COLLEGE	TORRANCE	BOILER - NATURAL GAS	15.2
GATEWAY SANDBLASTING	VARIOUS LOCATIONS	OPEN ABRASIVE BLASTING	455.2
HOLGA INC	VAN NUYS	PAINT BURNOFF FURNACE	2.0
HONEYWELL INTERNATIONAL INC	TORRANCE	JET ENGINE TEST EQUIPMENT	4.5
MOUNTAINVIEW GENERATING STATION	REDLANDS	UTILITY BOILER - NATURAL GAS/OIL	265.5
MOUNTAINVIEW GENERATING STATION	REDLANDS	UTILITY BOILER - NATURAL GAS/OIL	265.5
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	TURBINE ENGINE - NATURAL GAS/OIL	169.6
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	TURBINE ENGINE - NATURAL GAS/OIL	169.6
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	TURBINE ENGINE - NATURAL GAS/OIL	169.6
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	TURBINE ENGINE - NATURAL GAS/OIL	169.6
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	UTILITY BOILER - NATURAL GAS/OIL	2,611.3
RELIANT ENERGY ETIWANDA, INC.	ETIWANDA	UTILITY BOILER - NATURAL GAS/OIL	2,611.3
SUNLAW COGENERATION PARTNERS I	VERNON	TURBINE ENGINE - NATURAL GAS	2,506.4
SUNLAW COGENERATION PARTNERS I	VERNON	TURBINE ENGINE - NATURAL GAS	2,193.5
THE BOEING COMPANY	SEAL BEACH	EMERGENCY ICE - DIESEL FIRE PUMP	183.5
		Total	**18,540.6**

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION FOR THE *CPV SENTINEL ENERGY PROJECT* BY THE *CPV SENTINEL, L.L.C*

DOCKET NO. 07-AFC-3

PROOF OF SERVICE
(Revised 2/16/2010)

APPLICANT

CPV Sentinel, LLC
Mark O. Turner, Director
Competitive Power Ventures, Inc.
55 2nd Street, Suite 525
San Francisco, CA 94105
mturner@cpv.com

APPLICANT'S CONSULTANT

Dale Shileikis - URS Corporation
221 Main Street, Suite 600
San Francisco, CA 94105-1916
dale_shileikis@urscorp.com

COUNSEL FOR APPLICANT

Michael J. Carroll
LATHAM & WATKINS LLP
650 Town Center Drive, 20th Floor
Costa Mesa, CA 92626-1925
michael.carroll@lw.com

INTERESTED AGENCIES

California ISO
e-recipient@caiso.com

Mohsen Nazemi, PE
South Coast AQMD
21865 Copley Drive
Diamond Bar, CA 91765-4178
mnazemi@aqmd.gov

INTERVENORS

Angela Johnson Meszaros
CA Communities Against Toxics
1107 Fair Oaks Avenue, #246
South Pasadena, CA 91030
Angela@CleanAirMatters.net

ENERGY COMMISSION

JAMES D. BOYD
Vice Chair and Presiding Member
jboyd@energy.state.ca.us

Kenneth Celli, Hearing Officer
kcelli@energy.state.ca.us

John Kessler, Project Manager
jkessler@energy.state.ca.us

Caryn Holmes, Staff Counsel
cholmes@energy.state.ca.us

*Jennifer Jennings
Public Adviser
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, Maria Santourdjian, declare that on March 4, 2010, I served and a filed copy of the attached SCAQMD Addendum to DOC and POC. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:
[http://www.energy.ca.gov/sitingcases/sentinel/index.html]

The documents has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

For service to all other parties:

__x__ sent electronically to all email addresses on the Proof of Service list;

_____ by personal delivery;

__x__ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses NOT marked "email preferred."

AND

For filing with the Energy Commission:

__x__ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

OR

_____ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 07-AFC-3
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Originally Signed by
Maria Santourdjian