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DOCKET
06-AFC-3
DATE FEB 28 2007
RECD. FEB 28 2007

February 28, 2007

Mr. Bill Pfanner
Project Manager
Systems Assessment and Facility Siting Division
California Energy Commission
1516 9th Street, MS 15
Sacramento, CA 95814-5512

Subject: LSP South Bay, LLC - South Bay Replacement Project AFC (06-AFC-3): Docketing of Data Response Information Provided to San Diego Air Pollution Control District

Dear Mr. Pfanner:

On behalf of LS Power South Bay, LLC, please find attached the following that has recently been provided to the San Diego Air Pollution Control District (District) in response to their February 21, 2007 request for information to facilitate their review of the application for a Determination of Compliance on the South Bay Replacement Project:

- 12 hard copies of health risk assessment modeling input information tables;
- 5 compact discs containing health risk assessment modeling files; and
- 12 hard copies of AFC Table 8.1-32, updated with the results of the health risk assessment modeling.

For docketing purpose, also find attached the Proof of Service declaration. We will coordinate this submittal with the Commission's Docket Unit.

LSP South Bay, LLC appreciates the continued opportunity to work with CEC staff on this important project.

Sincerely,
CH2M HILL

for Robert C. Mason
Project Director

Attachments

cc: Docket Unit - California Energy Commission
Kevin Johnson, LSP South Bay, LLC

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

APPLICATION FOR CERTIFICATION FOR THE SOUTH BAY REPLACEMENT PROJECT	**DOCKET NO. 06-AFC-3** PROOF OF SERVICE LIST (REVISED 2/8/07)

INSTRUCTIONS: All parties shall 1) send an original signed document plus 12 copies OR 2) mail one original signed copy AND e-mail the document to the web address below, AND 3) all parties shall also send a printed OR electronic copy of the documents that shall include a proof of service declaration to each of the individuals on the proof of service:

DOCKET UNIT

Send the original signed document Plus the required 12 copies to the address below:

CALIFORNIA ENERGY COMMISSION
DOCKET UNIT, MS-4
Attn: DOCKET NO. 06-AFC-3
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

* * * *

In addition to the documents sent to the Commission's Docket Unit, also send Individual copies of any document to:

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DECLARATION OF SERVICE

I, Sarah Madams, declare that on February 28, 2007, I deposited the required copies of the attached SDAPCD Health Risk Modeling in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above. I declare under penalty of perjury that the foregoing is true and correct.

OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

[signature]

Table 8.1B-8
South Bay Energy Facility
Annual and Maximum Hourly Non-Criteria Pollutant Emissions From Gas Turbines

Non-Criteria Pollutant	Emission Factor [1] (lb/MMscf)	1 Turbine Max Firing Rate (MMBtu/hr)	Natural Gas HHV (Btu/scf)	Turbine Operating Hours (hrs/yr)	1 Turbine Max Hourly Firing Rate (MMscf/hr)	1 Turbine Annual Avg Firing Rate (MMscf/yr)	1 Turbine Max. Hourly Emissions (lbs/hr)	2 Turbines Max. Hourly Emissions (lbs/hr)	1 Turbine Annual Emissions (tons/yr)	2 Turbines Annual Emissions (tons/yr)	Hourly Emission Rate Per Turbine (g/sec)	Annual Emission Rate Per Turbine (g/sec)
Ammonia	10 ppmv slip	2,452.7	1,018	8,760	2.41	16,616.48	3.29E+01	6.58E+01	113.44	226.88	4.15E+00	3.26E+00
Propylene	7.71E-01	2,452.7	1,018	8,760	2.41	16,616.48	1.86E+00	3.72E+00	6.41	12.81	2.34E-01	1.84E-01
Hazardous Air Pollutants												
Acetaldehyde	4.08E-02	2,452.7	1,018	8,760	2.41	16,616.48	9.83E-02	1.97E-01	3.39E-01	6.78E-01	1.24E-02	9.75E-03
Acrolein	6.53E-03	2,452.7	1,018	8,760	2.41	16,616.48	1.57E-02	3.15E-02	5.43E-02	1.09E-01	1.98E-03	1.56E-03
Benzene	1.22E-02	2,452.7	1,018	8,760	2.41	16,616.48	2.94E-02	5.88E-02	1.01E-01	2.03E-01	3.70E-03	2.92E-03
1,3-Butadiene	4.39E-04	2,452.7	1,018	8,760	2.41	16,616.48	1.06E-03	2.12E-03	3.65E-03	7.29E-03	1.33E-04	1.05E-04
Ethylbenzene	3.26E-02	2,452.7	1,018	8,760	2.41	16,616.48	7.85E-02	1.57E-01	2.71E-01	5.42E-01	9.90E-03	7.79E-03
Formaldehyde	7.24E-01	2,452.7	1,018	8,760	2.41	16,616.48	1.74E+00	3.49E+00	6.02E+00	1.20E+01	2.20E-01	1.73E-01
Hexane	2.59E-01	2,452.7	1,018	8,760	2.41	16,616.48	6.24E-01	1.25E+00	2.15E+00	4.30E+00	7.86E-02	6.19E-02
Naphthalene	1.66E-03	2,452.7	1,018	8,760	2.41	16,616.48	4.00E-03	8.00E-03	1.38E-02	2.76E-02	5.04E-04	3.97E-04
PAHs (listed individually below)	1.31E-04	2,452.7	1,018	8,760	2.41	16,616.48	3.16E-04	6.31E-04	1.09E-03	2.18E-03	3.98E-05	3.13E-05
Benzo(a)anthracene	2.26E-05	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	1.39E-05	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthrene	1.13E-05	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthrene	1.10E-05	--	--	--	--	--	--	--	--	--	--	--
Chrysene	2.52E-05	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	2.35E-05	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	2.35E-05	--	--	--	--	--	--	--	--	--	--	--
Propylene oxide	2.96E-02	2,452.7	1,018	8,760	2.41	16,616.48	7.13E-02	1.43E-01	2.46E-01	4.92E-01	8.98E-03	7.07E-03
Toluene	1.33E-01	2,452.7	1,018	8,760	2.41	16,616.48	3.20E-01	6.41E-01	1.10E+00	2.21E+00	4.04E-02	3.18E-02
Xylene	6.53E-02	2,452.7	1,018	8,760	2.41	16,616.48	1.57E-01	3.15E-01	5.43E-01	1.09E+00	1.98E-02	1.56E-02
Total HAPs =	--	--	--	--	--	--	--	--	--	21.7	--	--

(1) All factors except PAHs, hexane and propylene from AP-42, Table 3.1-3, 4/00. Acrolein, benzene and formaldehyde reflect no oxidation catalyst, such as might occur during the first hour of a startup or commissioning. Individual PAHs, hexane and propylene are CATEF mean results because AP-42 does not include factors for these compounds

Non-Criteria Pollutant Emissions from Standby/Emergency Engine

Engine	Pollutant	Hourly Emissions (lbs/hr)	Annual Emissions (tons/yr)		One-hour Emiss. Rate (g/sec)	Annual Emiss. Rate (g/sec)
Fire Water Pump Engine	Diesel PM	0.074	0.0019		9.33E-03	5.33E-05

Table 8.1B-8 (cont'd)

Annual and Maximum Hourly Non-Criteria Pollutant Emissions From the Auxiliary Boiler

Non-Criteria Pollutant	Emission Factor [1] (lb/MMscf)	Aux. Boiler Max Firing Rate (MMBtu/hr)	Natural Gas HHV (Btu/scf)	Aux. Boiler Operating Hours (hrs/yr)	Aux. Boiler Max Hourly Firing Rate (MMscf/hr)	Aux. Boiler Annual Avg Firing Rate (MMscf/yr)	Aux. Boiler Max. Hourly Emissions (lbs/hr)	Aux. Boiler Max. Hourly Emissions (lbs/hr)	Aux. Boiler Annual Emissions (tons/yr)		Hourly Emission Rate Per Turbine (g/sec)	Annual Emission Rate Per Turbine (g/sec)
Ammonia	--	38.0	1,018	1,664	0.037	62.15	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Propylene	1.55E-02	38.0	1,018	1,664	0.037	62.15	5.79E-04	5.79E-04	4.82E-04		7.29E-05	1.39E-05
Hazardous Air Pollutants												
Acetaldehyde	9.00E-04	38.0	1,018	1,664	0.037	62.15	3.36E-05	3.36E-05	2.80E-05		4.24E-06	8.05E-07
Acrolein	8.00E-04	38.0	1,018	1,664	0.037	62.15	2.99E-05	2.99E-05	2.49E-05		3.76E-06	7.15E-07
Benzene	1.70E-03	38.0	1,018	1,664	0.037	62.15	6.35E-05	6.35E-05	5.28E-05		8.00E-06	1.52E-06
Ethylbenzene	2.00E-02	38.0	1,018	1,664	0.037	62.15	7.47E-04	7.47E-04	6.21E-04		9.41E-05	1.79E-05
Formaldehyde	3.60E-03	38.0	1,018	1,664	0.037	62.15	1.34E-04	1.34E-04	1.12E-04		1.69E-05	3.22E-06
Hexane	1.30E-03	38.0	1,018	1,664	0.037	62.15	4.86E-05	4.86E-05	4.04E-05		6.12E-06	1.16E-06
Naphthalene	3.00E-04	38.0	1,018	1,664	0.037	62.15	1.12E-05	1.12E-05	9.32E-06		1.41E-06	2.68E-07
Polycyclic Aromatics (2)	1.00E-04	38.0	1,018	1,664	0.037	62.15	3.73E-06	3.73E-06	3.11E-06		4.71E-07	8.94E-08
Toluene	7.80E-03	38.0	1,018	1,664	0.037	62.15	2.91E-04	2.91E-04	2.42E-04		3.67E-05	6.97E-06
Xylene	5.80E-03	38.0	1,018	1,664	0.037	62.15	2.17E-04	2.17E-04	1.80E-04		2.73E-05	5.18E-06
Total HAPs =	--	--	--	--	--	--	--	--	1.31E-03	--	--	--

1) Emission factors from Ventura County APCD.
2) Polycyclic aromatic hydrocarbons, excluding naphthalene (modeled separately).

Table 8.1E-2
South Bay Replacement Project
Calculation of Modeling Inputs and Cancer Risk for Gas Turbines

		Derived (OEHHA) Method			Average Point Estimate			High-End Point Estimate			Derived (Adjusted) Method			Worker Exp. Derived (OEHHA) Method		
Non-Criteria Pollutant	Annual Average Emissions Per Turbine g/s	Unit Risk (per ug/m3)	Cancer Risk Model Input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (2)	Unit Risk (per ug/m3)	Cancer Risk Model Input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (3)	Unit Risk (per ug/m3)	Cancer Risk Model Input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (4)	Unit Risk (per ug/m3)	Cancer Risk Model Input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (5)	Unit Risk (per ug/m3)	Cancer Risk Model Input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (6)
Ammonia	3.26E+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propylene	1.84E-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Acetaldehyde	9.75E-03	3.77E-06	3.68E-02	2.42E-02	2.60E-06	2.54E-02	1.67E-02	3.77E-06	3.68E-02	2.42E-02	2.90E-06	2.83E-02	1.86E-02	5.72E-07	5.58E-03	3.67E-03
Acrolein	1.56E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzene	2.92E-03	3.77E-05	1.10E-01	7.23E-02	2.60E-05	7.58E-02	4.98E-02	3.77E-05	1.10E-01	7.23E-02	2.90E-05	8.46E-02	5.56E-02	5.72E-06	1.67E-02	1.10E-02
1,3-Butadiene	1.05E-04	2.26E-04	2.37E-02	1.56E-02	1.56E-04	1.64E-02	1.08E-02	2.26E-04	2.37E-02	1.56E-02	1.74E-04	1.83E-02	1.20E-02	3.43E-05	3.60E-03	2.37E-03
Ethylbenzene	7.79E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Formaldehyde	1.73E-01	7.91E-06	1.37E+00	9.00E-01	5.46E-06	9.45E-01	6.21E-01	7.91E-06	1.37E+00	9.00E-01	6.08E-06	1.05E+00	6.92E-01	1.20E-06	2.08E-01	1.37E-01
Hexane	6.19E-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphthalene	3.97E-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAHs (listed individually below) (Note 1)	3.13E-05	8.09E-03	2.53E-01	1.67E-01	8.05E-03	2.52E-01	1.66E-01	4.02E-02	1.26E+00	8.27E-01	8.09E-03	2.53E-01	1.67E-01	1.47E-02	4.60E-01	3.03E-01
Benzo(a)anthracene		*8.09E-04*			*8.05E-04*			*4.02E-03*			*8.09E-04*			*1.47E-03*		
Benzo(a)pyrene		*8.09E-03*			*8.05E-03*			*4.02E-02*			*8.09E-03*			*1.47E-02*		
Benzo(b)fluoranthrene		*8.09E-04*			*8.05E-04*			*4.02E-03*			*8.09E-04*			*1.47E-03*		
Benzo(k)fluoranthrene		*8.09E-04*			*8.05E-04*			*4.02E-03*			*8.09E-04*			*1.47E-03*		
Chrysene		*8.09E-05*			*8.05E-05*			*4.02E-04*			*8.09E-05*			*1.47E-04*		
Dibenz(a,h)anthracene		*3.41E-03*			*3.47E-03*			*1.48E-02*			*3.41E-03*			*5.17E-03*		
Indeno(1,2,3-cd)pyrene		*8.09E-04*			*8.05E-04*			*4.02E-03*			*8.09E-04*			*1.47E-03*		
Propylene oxide	7.07E-03	4.90E-06	3.46E-02	2.28E-02	3.38E-06	2.39E-02	1.57E-02	4.90E-06	3.46E-02	2.28E-02	3.76E-06	2.66E-02	1.75E-02	7.43E-07	5.25E-03	3.45E-03
Toluene	3.18E-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xylene	1.56E-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			1.83E+00 per ug/m3	1.20E+00 in one million		1.34E+00 per ug/m3	8.80E-01 in one million		2.83E+00 per ug/m3	1.86E+00 in one million		1.46E+00 per ug/m3	9.62E-01 in one million		6.99E-01 per ug/m3	4.60E-01 in one million

Note: The underlined numbers are updated values from the June 30, 2006 AFC.

Notes:

(1) Maximum unit risk value applied to all PAHs for purposes of this analysis.

(2) Based on modeled cancer risk from both CTG of 1.20 in one million.

(3) Based on modeled cancer risk from both CTG of 0.880 in one million.

(4) Based on modeled cancer risk from both CTG of 1.86 in one million.

(5) Based on modeled cancer risk from both CTG of 0.962 in one million.

(6) Based on modeled cancer risk from both CTG of 0.460 in one million.

Table 8.1E-3
South Bay Replacement Project
Calculation of Modeling Inputs and HHIs for Gas Turbines

Non-Criteria Pollutant	Max Hourly Emissions Per Turbine g/s	HARP Acute HI (per ug/m3)	Acute HHI Model Input (per ug/m3 per g/s)	Modeled Contribution to Acute HHI	Annual Average Emissions, g/s	HARP Chronic HI (per ug/m3)	Chronic HHI Model Input (per ug/m3 per g/s)	Modeled Contribution to Chronic HHI
Ammonia	4.1450	3.13E-04	1.30E-03	2.28E-02	3.26E+00	5.00E-03	1.63E-02	1.07E-02
Propylene	0.2341	--	--	--	1.84E-01	3.33E-04	6.14E-05	4.03E-05
Acetaldehyde	1.239E-02	--	--	--	9.75E-03	1.11E-01	1.08E-03	7.11E-04
Acrolein	1.982E-03	5.26E+00	1.04E-02	1.83E-01	1.56E-03	1.67E+01	2.61E-02	1.71E-02
Benzene	3.704E-03	7.69E-04	2.85E-06	5.01E-05	2.92E-03	1.67E-02	4.87E-05	3.20E-05
1,3-Butadiene	1.333E-04	--	--	--	1.05E-04	5.00E-02	5.25E-06	3.45E-06
Ethylbenzene	9.897E-03	--	--	--	7.79E-03	5.00E-04	3.90E-06	2.56E-06
Formaldehyde	2.198E-01	1.06E-02	2.33E-03	4.10E-02	1.73E-01	3.33E-01	5.76E-02	3.79E-02
Hexane	7.863E-02	--	--	--	6.19E-02	1.43E-04	8.85E-06	5.82E-06
Naphthalene	5.039E-04	--	--	--	3.97E-04	1.11E-01	4.40E-05	2.89E-05
PAHs (listed individually below)	3.977E-05	--	--	--	3.13E-05	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--
Benzo(b)fluoranthrene	--	--	--	--	--	--	--	--
Benzo(k)fluoranthrene	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--
Propylene oxide	8.980E-03	3.23E-04	2.90E-06	5.10E-05	7.07E-03	3.33E-02	2.35E-04	1.55E-04
Toluene	4.038E-02	2.70E-05	1.09E-06	1.92E-05	3.18E-02	3.33E-03	1.06E-04	6.96E-05
Xylene	1.982E-02	4.55E-05	9.02E-07	1.59E-05	1.56E-02	1.43E-03	2.23E-05	1.47E-05
		Total =	1.41E-02	2.47E-01		Total =	1.02E-01	6.68E-02

Note: The underlined numbers are updated values from the June 30, 2006 AFC.

Table 8.1E-4
South Bay Replacement Project
Cancer Risk Assessment Modeling Inputs and Results for Auxiliary Boiler and Fire Pump Engine

		Derived (OEHHA) Method			Average Point Estimate			High-End Point Estimate			Derived (Adjusted) Method			Worker Exposure: Derived (OEHHA) Method		
Non-Criteria Pollutant	Annual Average Emissions, g/s	Unit Risk (per ug/m3)	Cancer Risk Model Input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (2)	Unit Risk (per ug/m3)	Cancer Risk Model Input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (3)	Unit Risk (per ug/m3)	Cancer Risk Model Input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (4)	Unit Risk (per ug/m3)	Cancer Risk Model Input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (5)	Unit Risk (per ug/m3)	Cancer Risk Model input (per ug/m3 per g/s)	Modeled Contribution to Cancer Risk (6)
Auxiliary Boiler																
Propylene	1.39E-05	0	0	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00
Acetaldehyde	8.05E-07	3.77E-06	3.03E-06	6.26E-06	2.60E-06	2.09E-06	4.30E-06	3.77E-06	3.03E-06	6.24E-06	2.90E-06	2.33E-06	4.79E-06	5.72E-07	4.60E-07	9.47E-07
Acrolein	7.15E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzene	1.52E-06	3.77E-05	5.73E-05	1.18E-04	2.60E-05	3.95E-05	8.12E-05	3.77E-05	5.73E-05	1.18E-04	2.90E-05	4.41E-05	9.05E-05	5.72E-06	8.69E-06	1.79E-05
Ethylbenzene	1.79E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Formaldehyde	3.22E-06	7.91E-06	2.55E-05	5.25E-05	5.46E-06	1.76E-05	3.61E-05	7.91E-06	2.55E-05	5.24E-05	6.08E-06	1.96E-05	4.02E-05	1.20E-06	3.86E-06	7.94E-06
Hexane	1.16E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphthalene	2.68E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polycyclic Aromatic Hydrocarbons	8.94E-08	8.09E-03	7.23E-04	1.49E-03	8.05E-03	7.20E-04	1.48E-03	4.02E-02	3.59E-03	7.39E-03	8.09E-03	7.23E-04	1.48E-03	1.47E-02	1.31E-03	2.70E-03
Toluene	6.97E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xylene	5.18E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			8.09E-04 per ug/m3	1.67E-03 in one million		7.79E-04 per ug/m3	1.60E-03 in one million		3.68E-03 per ug/m3	7.57E-03 in one million		7.89E-04 per ug/m3	1.62E-03 in one million		1.33E-03 per ug/m3	2.73E-03 in one million
Diesel Fire Pump Engine																
Diesel Exhaust Particulate	5.33E-05	4.15E-04	2.21E-02 per ug/m3	6.40E-01 in one million	2.86E-04	1.52E-02 per ug/m3	4.41E-01 in one million	4.15E-04	2.21E-02 per ug/m3	6.40E-01 in one million	3.19E-04	1.70E-02 per ug/m3	4.92E-01 in one million	6.29E-05	3.35E-03 per ug/m3	9.71E-02 in one million

Note: The underlined numbers are updated values from the June 30, 2006 AFC.

Notes:

(1) Maximum unit risk value applied to all PAHs for purposes of this analysis.

Table 8.1E-5
South Bay Replacement Project
Calculation of Risk Assessment Modeling Inputs and Results for Auxiliary Boiler and Fire Pump Engine

Non-Criteria Pollutant	Max Hourly Emissions for Aux Boiler, g/s	HARP Acute HI (per ug/m3)	Acute HHI Model Input (per ug/m3 per g/s)	Modeled Contribution to Acute HHI	Annual Average Emissions, g/s	HARP Chronic HI (per ug/m3)	Chronic HHI Model Input (per ug/m3 per g/s)	Modeled Contribution to Chronic HHI
Auxiliary Boiler								
Propylene	7.29E-05	--	--	--	1.39E-05	3.33E-04	4.61E-09	1.05E-08
Acetaldehyde	4.235E-06	--	--		8.05E-07	1.11E-01	8.93E-08	2.03E-07
Acrolein	3.765E-06	5.26E+00	1.98E-05	1.08E-03	7.15E-07	1.67E+01	1.19E-05	2.71E-05
Benzene	8.000E-06	7.69E-04	6.15E-09	3.35E-07	1.52E-06	1.67E-02	2.54E-08	5.77E-08
Ethylbenzene	9.412E-05	--	--		1.79E-05	5.00E-04	8.94E-09	2.03E-08
Formaldehyde	1.694E-05	1.06E-02	1.80E-07	9.79E-06	3.22E-06	3.33E-01	1.07E-06	2.44E-06
Hexane	6.118E-06	--	--	--	1.16E-06	1.43E-04	1.66E-10	3.78E-10
Naphthalene	1.412E-06	--	--	--	2.68E-07	1.11E-01	2.98E-08	6.77E-08
Polycyclic Aromatic Hydrocarbons	4.706E-07	--	--	--	8.94E-08	--	--	--
Toluene	3.671E-05	2.70E-05	9.91E-10	5.40E-08	6.97E-06	3.33E-03	2.32E-08	5.28E-08
Xylene	2.729E-05	4.55E-05	1.24E-09	6.77E-08	5.18E-06	1.43E-03	7.41E-09	1.69E-08
		Total =	2.00E-05	1.09E-03		Total =	1.32E-05	3.00E-05
Fire Pump Engine								
Particulate Em from Diesel-Fueled Engines	9.33E-03	n/a	n/a	n/a	5.33E-05	0.2	1.07E-05	3.10E-04
						Total =	1.07E-05	3.10E-04

Note: The underlined numbers are updated values from the June 30, 2006 AFC.

Table 8.1E-6
South Bay Replacement Project
Summary of Modeling Input Values for HRA

Emitting Unit	Derived (OEHHA) Method Cancer Risk (Res)	Average Point Estimate Cancer Risk (Res)	High-end Point Estimate Cancer Risk (Res)	Derived (Adjusted) Method Cancer Risk (Res)	Derived (OEHHA) Method Cancer Risk (Worker)	Acute HHI Model Input (per ug/m3)	Chronic HHI Model Input (per ug/m3)
Each CTG	1.827E+00	1.338E+00	2.832E+00	1.463E+00	6.990E-01	1.406E-02	1.016E-01
Auxiliary Boiler	8.089E-04	7.788E-04	3.679E-03	7.891E-04	1.327E-03	1.999E-05	1.320E-05
Fire Pump Engine	2.211E-02	1.524E-02	2.211E-02	1.699E-02	3.351E-03	n/a	1.065E-05

All modeling input values are in units of per ug/m3

TABLE 8.1-32 (UPDATED FEBRUARY 21, 2007 FOR REMODELING WITH CHULA VISTA METEOROLOGICAL DATA)

MAXIMUM POTENTIAL HEALTH RISKS FROM THE OPERATION OF SBRP

	Significance Thresholds	SBRP	Significant?
Maximum Incremental Cancer Risk (MICR) at Point of Maximum Impact	10 in one million	2.11 [a] (1.21) [b] in one million	No
MICR to Maximally-Exposed Individual (Resident) (MEI)	10 in one million	1.13 [a] (0.60) [b] in one million	No
MICR to Maximally-Exposed Worker (Offsite) (MEW) [c]	10 in one million	0.42 in one million	No
Maximum Acute Inhalation Health Hazard Index	1.0	0.25	No
Maximum Chronic Inhalation Health Hazard Index	1.0	0.067	No

a. High-End Point Estimate gives the maximum cancer risk of the four methods used by OEHHA and in HARP Version 1.3.

b. Derived (Adjusted) Method used by San Diego Air Pollution Control District to determine compliance with Regulation 1200.

c. The worker is assumed to be exposed at the work location 8 hours per day, instead of 24, 245 days per year, instead of 365, and for 40 years, instead of 70.

Note: The underlined numbers are updated values from the February 14, 2007 submittal.