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VIA EMAIL

Ms. Felicia Miller, Siting Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814



**Re: Huntington Beach Energy Project (12-AFC-02)
Applicant's Responses to Staff's Workshop Queries and Related Air Quality
Modeling Files**

Dear Ms. Miller:

On behalf of Applicant AES Southland Development, LLC, please find enclosed herewith for docketing Applicant's responses to Staff's queries regarding Air Quality raised during the November 14, 2012 workshop for the Huntington Beach Energy Project. In addition to the enclosed written responses, Applicant provides for docketing five (5) disks, which contain air quality modeling files related thereto. Due to the formatting of and software required to access the air quality modeling files, Applicant will serve to the parties identified on the enclosed proof of service only the written responses. Should any party wish to obtain a disk containing the modeling files, Applicant will provide a copy upon request.

Respectfully submitted,

A handwritten signature in blue ink that reads "Melissa A. Foster".

Melissa A. Foster

MAF:jmw
Enclosure
cc: Proof of Service List

Huntington Beach Energy Project

(12-AFC-02)

Applicant's Responses CEC Staff's Workshop Queries (Air Quality)

Submitted to
California Energy Commission

Prepared by
AES Southland Development, LLC

With Assistance from

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March 13, 2013

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Introduction

Attached are AES Southland Development, LLC's (AES or the Applicant) responses to certain Workshop Queries that were posed during the California Energy Commission (CEC) Data Response Workshop that was held on November 14, 2012.

A background discussion for each Workshop Query is provided, followed by the Applicant's response. The Workshop Queries have been given a unique Workshop Query (WSQ) number. Any future Workshop Queries will be assigned sequential numbers. New or revised graphics or tables are numbered in reference to the WSQ number. For example, the first table used in response to WSQ 1 would be numbered Table WSQ1-1. The first figure used in response to WSQ 2 would be Figure WSQ2-1, and so on.

Additional tables, figures, or documents submitted in response to a Workshop Query (for example, supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end of each discipline-specific section and are not sequentially page-numbered consistently with the remainder of the document, though they may have their own internal page numbering system.

Workshop Queries (1-2)

BACKGROUND

During the California Energy Commission (CEC) Data Response Workshop that was held on November 14, 2012, CEC Staff requested additional clarification on information submitted in the Application for Construction (AFC) and/or responses provided in previous Data Response Sets. The Applicant has provided responses below to Workshop Queries (WSQ) 1 and 2.

WORKSHOP QUERY

1. CEC Staff indicated that the results of the 1-hour nitrogen dioxide (NO₂) construction modeling presented in the AFC remain above the state and federal 1-hour ambient air quality standards (AAQS). As a result, please prepare a more robust analysis that identifies the spatial extent and number of exceedances of the state and federal 1-hour AAQS. This analysis may include a determination of whether the state and federal 1-hour AAQS can be met throughout the 96-month construction period by reverse engineering the construction equipment counts and construction schedule.

Response: In response to this query, the Applicant and its engineering contractor reviewed the construction equipment list and the construction schedule for the Huntington Beach Energy Project (HBEP). This review determined that the number of equipment were overly conservative due to the assumption that multiple contractors would be used and these contractors would each use multiple pieces of the same equipment in the same month. The construction schedule was shortened to reduce excessive contingency periods included in the initial construction schedule. A revised construction equipment list and schedule were submitted on February 22, 2013, as Attachment DR75-1 to Data Responses, Set 2A. In addition, emission factors for NO₂ and diesel particulate matter (DPM) were updated to reflect the projected year of each construction activity. These modifications reduced construction emissions of nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide (SO₂), particulate matter with aerodynamic diameter less than or equal to 10 microns (PM₁₀), particulate matter with aerodynamic diameter less than or equal to 2.5 microns (PM_{2.5}), and greenhouse gases (GHG), which include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). The revised maximum daily and annual construction emissions for criteria pollutants and GHGs are presented in Tables WSQ1-1 and WSQ1-2, respectively, which are revisions of AFC Tables 5.1-10R and 5.1-11R.

TABLE WSQ1-1

Maximum Daily and Annual Emissions Estimates for HBEP Construction Activities

Construction Emissions	NO _x	CO	VOC	SO ₂	PM ₁₀	PM _{2.5}
Maximum Daily Emissions (pounds per day [lb/day])	79.5	88.1	12.7	0.20	81.0	20.6
Maximum Annual Emissions (tons per year [tons/yr])	8.6	9.1	1.3	0.02	5.8	1.4

Note: Maximum daily and annual emissions include contributions from onsite construction equipment, onsite vehicles, and offsite vehicles. The PM₁₀ and PM_{2.5} emissions include exhaust and fugitive dust emissions.

TABLE WSQ1-2

Maximum Annual Greenhouse Gas Emissions Estimates for HBEP Construction Activities

Greenhouse Gas Emissions	CO ₂	CH ₄	N ₂ O	CO ₂ Equivalent
Total (metric tons)	2,121	0.11	0.04	2,136

Note: The CO₂ equivalent total assumes a global warming potential of 21 for CH₄ and 310 for N₂O (IPCC, 1996).

Beyond the revisions to construction emissions set forth above, the Applicant also updated the modeling methodology in response to Staff's query, specifically as it relates to characterization of emission sources. In the AFC, the construction impact analysis characterized construction equipment exhaust emissions as elevated volume sources. As part of this revised construction impact analysis, hourly exhaust emissions, calculated by dividing the maximum monthly exhaust emissions by the hours worked per month, were modeled as point sources spaced approximately 20 meters (m) apart over the construction areas. The construction equipment exhausts were assumed to be horizontal stack releases. The horizontal release type is an American Meteorological Society/U.S. Environmental Protection Agency (EPA) Regulatory Model (AERMOD) beta option (i.e., non-regulatory default option), which negates mechanical plume rise; this conservative approach was used because it is unknown whether the construction equipment will have vertically oriented exhaust stacks. Stack release parameters were selected based on data for typical construction equipment, which consist of a stack release temperature of 533 degrees Kelvin (K; 500 degrees Fahrenheit [°F]), a stack diameter of 0.127 m (5 inches), and a release height of 4.6 m (15 feet). The Applicant docketed the source parameters and emission rates used to perform the revised construction impact analysis on February 22, 2013, as Tables DR75-1 through DR75-5 to Data Responses, Set 2A.

In addition, the AERMOD Plume Volume Molar Ratio Method (PVMRM) model option was used to model the 1-hour construction NO₂ impacts with an in-stack NO₂ to NO_x ratio of 0.20 (CAPCOA, 2011) and an ambient NO₂ ratio of 0.80 (EPA, 2011). Hourly ozone background concentrations, collected at the Costa Mesa monitoring station between 2005 and 2007 and preprocessed for use with AERMOD by the South Coast Air Quality Management District (SCAQMD), were also used to model NO₂ impacts. The results of the revised 1-hour NO₂ impact analysis for HBEP construction are presented in Table WSQ1-3. As shown in Table WSQ1-3, the impacts of NO₂ during HBEP construction are below the state and federal 1-hour AAQS during peak construction activities.

TABLE WSQ1-3

Maximum Modeled HBEP NO₂ Impacts from Construction and the Ambient Air Quality Standards

Pollutant	Averaging Period	Maximum Modeled Concentration (µg/m ³)	Background Concentration ^a (µg/m ³)	Total Predicted Concentration (µg/m ³)	State Standard (µg/m ³)	Federal Standard (µg/m ³)
NO ₂	1-hour	69.5	132	202	339	—
	Federal 1-hour ^b	69.5	107	177	—	188

^aBackground concentrations were the highest concentrations monitored during 2009 through 2011.

^bTotal predicted concentrations for the federal 1-hour NO₂ standard are the respective maximum modeled concentrations combined with the three-year average of 98th percentile background concentrations.

µg/m³ = micrograms per cubic meter

The remainder of this response presents revisions to AFC Section 5.1, Air Quality, as applicable, resulting from data and methodology changes used to conduct the revised construction impact analysis for 1-hour NO₂. These revisions include a comparison of daily construction emissions to the SCAQMD California Environmental Quality Act (CEQA) significance thresholds, updated ambient air quality data, and modeled impacts for criteria pollutants evaluated.

Daily Construction Emissions:

During the revised 90-month construction period, various stages of construction will overlap (e.g., the construction of Block 1 will overlap for several months with the construction of Block 2). The construction air quality impacts presented in this response address HBEP construction. The cumulative construction air quality impacts associated with construction of HBEP and demolition of the Huntington Beach Generating Station Units 3 and 4 are addressed in the response to Workshop Query 2. To evaluate the overall potential air quality impacts from construction activities, the schedules for each activity were aligned and the maximum daily emissions were compared to the daily SCAQMD CEQA significance thresholds for construction, as presented in Table WSQ1-4, which is a revision of AFC Table 5.1-22R. As shown in Table WSQ1-4, the maximum daily emissions are less than the SCAQMD CEQA significance thresholds for all pollutants. Therefore, the daily emissions from construction are expected to be less than significant.

TABLE WSQ1-4

Maximum Daily HBEP Construction Emissions and the SCAQMD CEQA Significance Thresholds

Construction Emission Source	NO _x	CO	VOC	SO ₂	PM ₁₀	PM _{2.5}
Maximum Daily Emissions (lb/day)	79.5	88.1	12.7	0.20	81.0	20.6
SCAQMD CEQA Significance Threshold (lb/day)	100	550	75	150	150	55
Exceed Threshold? (yes or no)	No	No	No	No	No	No

Note: Maximum daily emissions include contributions from onsite construction equipment, onsite vehicles, and offsite vehicles. The PM₁₀ and PM_{2.5} emissions include exhaust and fugitive dust emissions.

Ambient Air Quality Data:

The AFC was submitted in June 2012 using ambient air quality data from 2008, 2009, and 2010 because 2011 ambient air quality data were not available. Now that the 2011 data is available, the ambient air quality data used for this analysis reflects the most recent three (3) years of ambient air quality data. Tables WSQ1-5 through WSQ1-10 present the ambient air quality data for NO₂, ozone, SO₂, CO, PM₁₀, and PM_{2.5}, respectively, for the three most recent years of available data. These tables are revisions of AFC Tables 5.1-4R through 5.1-9R.

TABLE WSQ1-5

Background NO₂ Concentrations (µg/m³)

Station	Averaging Time	CAAQS/NAAQS	2009	2010	2011
North Coastal Orange County (Costa Mesa)	1-hour (max)	339/—	122.3	131.7	114.8
	1-hour (98th percentile)	—/188	107.2	105.4	99.7
	Annual*	57/100	24.5	21.3	18.8
Central Orange County (Anaheim)	1-hour (max)	339/—	127.9	137.9	139.2
	1-hour (98th percentile)	—/188	116.6	115.0	114.8
	Annual*	57/100	33.7	32.9	31.6
South Coastal LA County 1 (Long Beach)	1-hour (max)	339/—	208.8	174.6	199.4
	1-hour (98th percentile)	—/188	131.7	132.1	127.9
	Annual*	57/100	39.9	37.3	33.3

*Annual Arithmetic Mean

CAAQS = California Ambient Air Quality Standard

NAAQS = National Ambient Air Quality Standard

Source: SCAQMD, 2012; SCAQMD, 2013; EPA, 2013

TABLE WSQ1-6
Background Ozone Concentrations ($\mu\text{g}/\text{m}^3$)

Station	Averaging Time	CAAQS/NAAQS	2009	2010	2011
North Coastal Orange County (Costa Mesa)	1-hour	180/—	171	190	183
	8-hour	137/147	147	149	151
Saddleback Valley (Mission Viejo)	1-hour	180/—	238	230	185
	8-hour	137/147	187	161	163
Central Orange County (Anaheim)	1-hour	180/—	183	204	173
	8-hour	137/147	151	173	141
South Coastal LA County 1 (Long Beach)	1-hour	180/—	175	198	143
	8-hour	137/147	134	165	120

Source: SCAQMD, 2012; SCAQMD, 2013

TABLE WSQ1-7
Background SO₂ Concentrations ($\mu\text{g}/\text{m}^3$)

Station	Averaging Time	CAAQS/NAAQS	2008 ^a	2009	2010	2011
North Coastal Orange County (Costa Mesa)	1-hour (max)	655/—	—	26.2	18.7	15.1
	1-hour (99th percentile)	—/196	—	15.7	10.8	9.4
	3-hour ^b	—/1,300	17.3	17.3	7.5	NM
	24-hour	105/—	—	10.5	5.5	2.6
South Coastal LA County 1 (Long Beach)	1-hour (max)	655/—	—	52.4	78.5	29.1
	1-hour (99th percentile)	—/196	—	31.4	31.4	21.0
	3-hour ^b	—/1,300	98.4	29.6	48.3	NM
	24-hour	105/—	—	13.1	15.7	10.5

^a3-hour SO₂ concentrations were not monitored at the nearby monitoring stations in 2011; therefore, 2008 data are presented.

^bEPA Secondary Standard

NM = not measured

Source: SCAQMD, 2012; SCAQMD, 2013; ARB, 2012; EPA, 2013

TABLE WSQ1-8
Background CO Concentrations ($\mu\text{g}/\text{m}^3$)

Station	Averaging Time	CAAQS/NAAQS	2009	2010	2011
North Coastal Orange County (Costa Mesa)	1-hour	23,000/40,000	3,436	2,290	3,321
	8-hour	10,000/10,000	2,519	2,405	2,519
Saddleback Valley (Mission Viejo)	1-hour	23,000/40,000	2,290	1,145	1,603
	8-hour	10,000/10,000	1,145	1,031	916
Central Orange County (Anaheim)	1-hour	23,000/40,000	3,436	3,436	3,092
	8-hour	10,000/10,000	3,092	2,290	2,405
South Coastal LA County 1 (Long Beach)	1-hour	23,000/40,000	3,436	3,436	3,665
	8-hour	10,000/10,000	2,519	2,405	2,978

Source: SCAQMD, 2012; SCAQMD, 2013; EPA, 2013

TABLE WSQ1-9
Background PM₁₀ Concentrations (µg/m³)

Station	Averaging Time	CAAQS/NAAQS	2009	2010	2011
Saddleback Valley (Mission Viejo)	24-hour	50/150	56	34	48
	Annual*	20/—	23.5	18.1	19.2
Central Orange County (Anaheim)	24-hour	50/150	63	43	53
	Annual*	20/—	30.9	22.4	24.8
South Coastal LA County 1 (Long Beach)	24-hour	50/150	62	44	43
	Annual*	20/—	30.5	22.0	24.2
South Coastal LA County 2 (South Long Beach)	24-hour	50/150	83	76	50
	Annual*	20/—	33.2	27.3	28.7

*Annual Arithmetic Mean

Source: SCAQMD, 2012; SCAQMD, 2013

TABLE WSQ1-10
Background PM_{2.5} Concentrations (µg/m³)

Station	Averaging Time	CAAQS/NAAQS	2009	2010	2011
Saddleback Valley (Mission Viejo)	24-hour (98th percentile)	—/35	23.8	17.3	28.8
	Annual*	12/12	9.5	8.0	8.6
Central Orange County (Anaheim)	24-hour (98th percentile)	—/35	32.1	25.2	28.1
	Annual*	12/12	11.8	10.2	11.0
South Coastal LA County 1 (Long Beach)	24-hour (98th percentile)	—/35	34.2	28.3	27.8
	Annual*	12/12	13.0	10.5	11.0
South Coastal LA County 2 (South Long Beach)	24-hour (98th percentile)	—/35	30.5	26.5	26.6
	Annual*	12/12	12.5	10.4	10.7

*Annual Arithmetic Mean

Source: SCAQMD, 2012; SCAQMD, 2013

A revised summary of the background concentrations for 2008 through 2011, based on the ambient air quality data above, is presented in Table WSQ1-11, which is a revision of AFC Table 5.1-21R.

TABLE WSQ1-11
Background Air Concentrations (2008–2011)^a

Pollutant	Averaging Time	2008		2009		2010		2011		Maximum ^b
		ppm	µg/m ³	ppm	µg/m ³	ppm	µg/m ³	ppm	µg/m ³	µg/m ³
NO ₂ ^c	1-hour (max)	—	—	0.065	122	0.070	132	0.061	115	132
	1-hour (98th percentile)	—	—	0.057	107	0.056	105	0.053	99.7	107
	Annual ^e	—	—	0.0130	24.5	0.0113	21.3	0.0100	18.8	24.5
SO ₂ ^c	1-hour (max)	—	—	0.01	26.2	0.0095	24.9	0.0077	20.2	26.2
	1-hour (99th percentile)	—	—	0.006	15.7	0.006	14.4	0.005	12.6	15.7
	3-hour ^f	0.0066	17.3	0.0066	17.3	0.0038	9.9	NM	NM	17.3
	24-hour	—	—	0.004	10.5	0.0021	5.50	0.0010	2.62	10.5
CO ^c	1-hour	—	—	3	3,436	2	2,290	3	3,321	3,436
	8-hour	—	—	2.2	2,519	2.1	2,405	2.2	2,519	2,519
PM ₁₀ ^d	24-hour	—	—	—	56	—	34	—	48	56
	Annual ^e	—	—	—	23.5	—	18.1	—	19.2	23.5
PM _{2.5} ^d	24-hour (98th percentile)	—	—	—	23.8	—	17.3	—	28.8	28.8
	Annual ^e	—	—	—	9.5	—	8.0	—	8.6	9.5

^aThe SCAQMD, California Air Resources Board (ARB), and EPA ambient air quality data summaries were used as reference.

^bMaximum value considers only the three most recent years of ambient air quality data.

^cData from the Costa Mesa monitoring station.

^dData from the Mission Viejo monitoring station.

^eAnnual Arithmetic Mean

^fEPA Secondary Standard

ppm = parts per million

NM = not measured

Modeled Impacts:

In addition to the SCAQMD CEQA significance thresholds, the CEC requires an assessment of the potential ambient air quality impacts for construction. However, only the inclusion of the maximum hourly, daily, monthly, and annual rolling 12-month emissions from onsite activities are required. Therefore, the modeled concentrations of NO₂, CO, PM₁₀, PM_{2.5}, and SO₂ from onsite construction activities were combined with the ambient background concentrations and compared to the AAQS.

Table WSQ1-12, which is a revision of AFC Table 5.1C.10R from Appendix 5.1C, Dispersion Modeling and Climate Information, presents the modeled concentrations from onsite construction activities. The AERMOD input and output files have been separately prepared and are included with this submission on compact disc.

TABLE WSQ1-12
Construction Modeling Results

Source	Year	NO ₂ (µg/m ³)		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
		1-hr ^a	Annual ^b	1-hr	8-hr	1-hr	3-hr	24-hr	24-hr	Annual	24-hr	Annual
ALL	2005	69.3	6.71	84.5	66.6	0.16	0.15	0.037	218	34	48.2	10.9
FUG		—	—	—	—	—	—	—	217	33.8	47.4	10.9
EXH		69.3	6.71	84.5	66.6	0.16	0.15	0.037	1.20	0.23	1.20	0.023
EAST		20.8	6.71	18.3	13.4	0.05	0.05	0.013	30.3	—	3.15	10.9
WEST		64.5	—	81.3	63.2	0.15	0.14	0.035	217	—	48.1	—
SOUTH		—	—	—	—	—	—	—	—	34	—	—
ALL	2006	69.5	6.62	85.9	63.0	0.16	0.15	0.035	193	34	42.4	11.0
FUG		—	—	—	—	—	—	—	192	33.5	41.8	11.0
EXH		69.5	6.62	85.9	63.0	0.16	0.15	0.035	1.14	0.23	1.14	0.023
EAST		21.0	6.62	18.4	14.1	0.05	0.05	0.012	27.1	—	2.86	11.0
WEST		64.7	—	81.7	60.5	0.15	0.14	0.033	191	—	42.2	—
SOUTH		—	—	—	—	—	—	—	—	34	—	—
ALL	2007	67.4	6.14	82.8	76.2	0.16	0.15	0.041	197	35	43.6	10.0
FUG		—	—	—	—	—	—	—	196	34.5	42.9	9.9
EXH		67.4	6.14	82.8	76.2	0.16	0.15	0.041	1.30	0.23	1.30	0.021
EAST		21.8	6.14	19.1	14.6	0.06	0.05	0.012	27.0	—	2.86	10.0
WEST		62.5	—	79.4	69.7	0.15	0.14	0.035	196	—	43.5	—
SOUTH		—	—	—	—	—	—	—	—	35	—	—

^aThe 1-hour NO₂ concentration includes an in-stack NO₂ to NO_x ratio of 0.20 (CAPCOA, 2011) and an ambient NO₂ ratio of 0.80 (EPA, 2011).

^bThe annual NO₂ concentration includes an ambient NO₂ ratio of 0.75 (EPA, 2005).

Table WSQ1-13, which is a revision of AFC Table 5.1-27R, indicates that the maximum NO₂, SO₂, and CO construction impacts combined with the background concentrations will be below the AAQS for each averaging period. For particulate matter, the annual and 24-hour PM₁₀ background concentrations exceed the state AAQS without adding the modeled concentrations, and the PM_{2.5} modeled concentrations are nearly equal to or exceed the AAQS without adding the background concentrations. As a result, the predicted impacts will be greater than the AAQS without mitigation. Based on the modeling analysis, although fugitive dust is a significant contributor to the predicted concentrations, the maximum PM₁₀ and PM_{2.5} concentrations will remain at or near the property boundary and the implementation of construction mitigation measures presented in AFC Section 5.1.8.1, Construction Mitigation, is expected to reduce any offsite construction air quality impacts to less-than-significant levels.

TABLE WSQ1-13

Maximum Modeled Impacts from Construction and the Ambient Air Quality Standards

Pollutant	Averaging Period	Maximum Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Background Concentration ^a ($\mu\text{g}/\text{m}^3$)	Total Predicted Concentration ($\mu\text{g}/\text{m}^3$)	State Standard ($\mu\text{g}/\text{m}^3$)	Federal Standard ($\mu\text{g}/\text{m}^3$)
NO ₂	1-hour ^b	69.5	132	202	339	—
	Federal 1-hour ^{b,c}	69.5	107	177	—	188
	Annual ^d	6.71	24.5	31.2	57	100
SO ₂	1-hour	0.16	26.2	26.4	655	—
	Federal 1-hour ^e	0.16	15.7	15.9	—	196
	3-hour	0.15	17.3	17.5	—	1,300
	24-hour	0.04	10.5	10.5	105	365
CO	1-hour	85.9	3,436	3,522	23,000	40,000
	8-hour	76.2	2,519	2,595	10,000	10,000
PM ₁₀	24-hour	218	56	273.5	50	150
	Annual	34.8	23.5	58.3	20	—
PM _{2.5}	24-hour ^c	48.2	28.8	77.0	—	35
	Annual	11.0	9.5	20.5	12	12

^aBackground concentrations were the highest concentrations monitored during 2009 through 2011 with the exception of the 3-hour SO₂ averaging period, which was taken as the highest concentrations monitored during 2008 through 2010.

^bThe maximum 1-hour NO₂ concentration includes an in-stack NO₂ to NO_x ratio of 0.20 (CAPCOA, 2011) and an ambient NO₂ ratio of 0.80 (EPA, 2011).

^cTotal predicted concentrations for the federal 1-hour NO₂ standard and 24-hour PM_{2.5} standard are the respective maximum modeled concentrations combined with the three-year average of 98th percentile background concentrations.

^dThe maximum annual NO₂ concentration includes an ambient NO₂ ratio of 0.75 (EPA, 2005).

^eTotal predicted concentrations for the federal 1-hour SO₂ standard are the maximum modeled concentrations combined with the three-year average of 99th percentile background concentrations.

References:

California Air Pollution Control Officers Association (CAPCOA). 2011. *Modeling Compliance of the Federal 1-hour NO₂ NAAQS*. Available online at: http://www.valleyair.org/busind/pto/Tox_Resources/CAPCOANO2GuidanceDocument10-27-11.pdf. Accessed first quarter 2013.

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U.S. Environmental Protection Agency (EPA). 2005. Guideline on Air Quality Models, 40 Code of Federal Regulations, Part 51, Appendix W. November.

WORKSHOP QUERY

2. In conjunction with the revised construction impact analysis requested in WSQ 1, please prepare an impact analysis for all modeling pollutants for the following scenarios: 1) Block 1 operation plus Block 2 construction; 2) Block 1 and Block 2 operation plus demolition of Units 1 and 2; and 3) demolition of Units 3 and 4 as they align with the development of HBEP.

Response: In response to this query, the Applicant has completed an impact analysis for each of the three scenarios identified by CEC Staff during the Workshop. The data, methodology, and results of each impact analysis are described below.

A. Block 1 Operation and Construction of Block 2

This scenario is intended to determine modeled impacts from the simultaneous operation of Block 1 and construction of Block 2. To evaluate the air quality impacts from this scenario, Block 1 operation emissions were obtained from AFC Table 5.1-24 (June 2012) and Block 2 construction emissions were obtained from Table 5.1A.46R from Appendix 5.1AR, which was submitted on February 22, 2013 as Attachment DR75-1 to Data Responses, Set 2A. Modeling was performed according to methodology presented in AFC Section 5.1.6.3, Air Quality Impact Analysis, with the following exceptions: construction emissions were modeled according to the methodology described in the response to Workshop Query 1 and the extent of the receptor grid was reduced to 10 kilometers (km) from the project fenceline. The AERMOD modeling setup for this scenario is presented in Figure WSQ2-1.

Table WSQ2-1 presents a comparison of the maximum modeled concentrations to the AAQS. As shown, the maximum NO₂, SO₂, CO, and PM_{2.5} concentrations combined with the background concentrations do not exceed the AAQS. Therefore, Block 1 operation and construction of Block 2 will not cause or contribute to the violation of a standard, and the NO₂, SO₂, CO, and PM_{2.5} impacts will be less than significant. For PM₁₀, the annual and 24-hour background concentrations exceed the state AAQS without adding the modeled concentrations. As a result, the predicted scenario impacts plus background also exceed the state AAQS and would further contribute to an existing violation of the state AAQS without mitigation. The implementation of construction and operation mitigation measures presented in AFC Section 5.1.8, Mitigation Measures, is expected to reduce the PM₁₀ impacts to less-than-significant levels.

A summary of the dispersion modeling input files for this scenario, as well as the complete modeling results, are presented in Attachment WSQ2-1. The AERMOD input and output files have been separately prepared and are included with this submission on compact disc.

TABLE WSQ2-1

Maximum Modeled Impacts from Block 1 Operation and Construction of Block 2

Pollutant	Averaging Period	Maximum Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Background Concentration ^a ($\mu\text{g}/\text{m}^3$)	Total Predicted Concentration ($\mu\text{g}/\text{m}^3$)	State Standard ($\mu\text{g}/\text{m}^3$)	Federal Standard ($\mu\text{g}/\text{m}^3$)
NO ₂	1-hour ^b	61.2	132	193	339	—
	Federal 1-hour ^{b,c}	61.2	107	168	—	188
	Annual ^d	3.14	24.5	27.6	57	100
SO ₂	1-hour	0.94	26.2	27.1	655	—
	Federal 1-hour ^e	0.94	15.7	16.6	—	196
	3-hour	0.79	17.3	18.1	—	1,300
	24-hour	0.31	10.5	10.8	105	365
CO	1-hour	72.7	3,436	3,509	23,000	40,000
	8-hour	45.4	2,519	2,564	10,000	10,000
PM ₁₀	24-hour	31.4	56	87.4	50	150
	Annual	8.23	23.5	31.7	20	—
PM _{2.5}	24-hour ^c	3.14	28.8	31.9	—	35
	Annual	1.05	9.5	10.5	12	12

^aBackground concentrations were the highest concentrations monitored during 2009 through 2011 with the exception of the 3-hour SO₂ averaging period, which was taken as the highest concentrations monitored during 2008 through 2010.

^bThe maximum 1-hour NO₂ concentration includes an ambient NO₂ ratio of 0.80 (EPA, 2011) and an in-stack NO₂ to NO_x ratio of 0.20 for construction sources (CAPCOA, 2011) and 0.50 for operational sources (EPA, 2011).

^cTotal predicted concentrations for the federal 1-hour NO₂ standard and 24-hour PM_{2.5} standard are the respective maximum modeled concentrations combined with the three-year average of 98th percentile background concentrations.

^dThe maximum annual NO₂ concentration includes an ambient NO₂ ratio of 0.75 (EPA, 2005).

^eTotal predicted concentrations for the federal 1-hour SO₂ standard are the maximum modeled concentrations combined with the three-year average of 99th percentile background concentrations.

B. Operation of HBEP with Demolition of Units 1 and 2

This scenario is intended to determine modeled impacts from the simultaneous operation of HBEP (Blocks 1 and 2) and demolition of Huntington Beach Generating Station Units 1 and 2. To evaluate the air quality impacts from this scenario, Block 1 and 2 operation emissions were obtained from AFC Table 5.1-24 (June 2012) and Units 1 and 2 demolition emissions were obtained from Table 5.1A.46R from Appendix 5.1AR, which was submitted on February 22, 2013, as Attachment DR75-1 to Data Responses, Set 2A. Modeling was performed according to methodology presented in AFC Section 5.1.6.3, Air Quality Impact Analysis, with the following exceptions: construction emissions were modeled according to the methodology described in the response to Workshop Query 1 and the extent of the receptor grid was reduced to 10 km from the project fence line. The AERMOD modeling setup for this scenario is presented in Figure WSQ2-2.

Table WSQ2-2 presents a comparison of the maximum modeled concentrations to the AAQS. As shown, the maximum NO₂, SO₂, and CO concentrations combined with the background concentrations do not exceed the AAQS. Therefore, operation of HBEP with demolition of Units 1 and 2 will not cause or contribute to the violation of a standard, and the NO₂, SO₂, and CO impacts will be less than significant. For particulate matter, the annual and 24-hour PM₁₀ background concentrations exceed the state AAQS without adding the modeled concentrations, and the 24-hour PM₁₀ and 24-hour PM_{2.5} modeled concentrations exceed the AAQS without adding the background concentrations. As a result, the predicted scenario impacts will be greater than the AAQS without mitigation. Based on the modeling analysis, although fugitive dust is a significant contributor to the predicted concentrations, the maximum PM₁₀ and PM_{2.5} concentrations will remain at or near the property boundary and the implementation of construction mitigation measures presented in AFC Section 5.1.8.1, Construction Mitigation, is expected to reduce any offsite construction air quality impacts to less-than-significant levels.

A summary of the dispersion modeling input files for this scenario, as well as the complete modeling results, are presented in Attachment WSQ2-2. The AERMOD input and output files have been separately prepared and are included with this submission on compact disc.

TABLE WSQ2-2

Maximum Modeled Impacts from Operation of HBEP with Demolition of Units 1 and 2

Pollutant	Averaging Period	Maximum Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Background Concentration ^a ($\mu\text{g}/\text{m}^3$)	Total Predicted Concentration ($\mu\text{g}/\text{m}^3$)	State Standard ($\mu\text{g}/\text{m}^3$)	Federal Standard ($\mu\text{g}/\text{m}^3$)
NO ₂	1-hour ^b	76.5	132	209	339	—
	Federal 1-hour ^{b,c}	76.5	107	184	—	188
	Annual ^d	3.63	24.5	28.1	57	100
SO ₂	1-hour	2.14	26.2	28.3	655	—
	Federal 1-hour ^e	2.14	15.7	17.8	—	196
	3-hour	1.53	17.3	18.8	—	1,300
	24-hour	0.62	10.5	11.1	105	365
CO	1-hour	168	3,436	3,604	23,000	40,000
	8-hour	100	2,519	2,619	10,000	10,000
PM ₁₀	24-hour	213	56	269	50	150
	Annual	30.2	23.5	53.7	20	—
PM _{2.5}	24-hour ^c	39.0	28.8	67.8	—	35
	Annual	5.00	9.5	14.5	12	12

^aBackground concentrations were the highest concentrations monitored during 2009 through 2011 with the exception of the 3-hour SO₂ averaging period, which was taken as the highest concentrations monitored during 2008 through 2010.

^bThe maximum 1-hour NO₂ concentration includes an ambient NO₂ ratio of 0.80 (EPA, 2011) and an in-stack NO₂ to NO_x ratio of 0.20 for construction sources (CAPCOA, 2011) and 0.50 for operational sources (EPA, 2011).

^cTotal predicted concentrations for the federal 1-hour NO₂ standard and 24-hour PM_{2.5} standard are the respective maximum modeled concentrations combined with the three-year average of 98th percentile background concentrations.

^dThe maximum annual NO₂ concentration includes an ambient NO₂ ratio of 0.75 (EPA, 2005).

^eTotal predicted concentrations for the federal 1-hour SO₂ standard are the maximum modeled concentrations combined with the three-year average of 99th percentile background concentrations.

C. Construction of HBEP and Demolition of Units 3 and 4

This scenario is intended to determine modeled impacts from the simultaneous demolition of Units 3 and 4 and development (construction and demolition) of HBEP. Existing Huntington Beach Generating Station Units 3 and 4 were licensed through the CEC (00-AFC-13C); demolition of these units is authorized under that license and will proceed irrespective of the HBEP. Therefore, demolition of existing Huntington Beach Generating Station Units 3 and 4 is not part of the HBEP project definition. However, to ensure a comprehensive review of potential air quality impacts, the demolition of existing Huntington Beach Generating Station Units 3 and 4 is included in the cumulative impact assessment as well as in this analysis.

To evaluate the air quality impacts from this scenario, Units 3 and 4 demolition emissions, as well as construction emissions that overlap in time with the demolition of Units 3 and 4, were obtained from Table 5.1A.58 of Attachment WSQ2-3. Modeling was performed according to the methodology described in the response to Workshop Query 1 except that the receptor grid extent was reduced to 10 km from the project fence line. The AERMOD modeling setup for this scenario is presented in Figure WSQ2-3.

Table WSQ2-3 presents a comparison of the maximum modeled concentrations to the AAQS. As shown, the CO, SO₂, and annual NO₂ concentrations combined with the background concentrations do not exceed the AAQS. Also, the 1-hour NO₂ concentrations combined with the background concentrations do not exceed the state AAQS. Therefore, construction of HBEP and demolition of Units 3 and 4 will not cause or contribute to the violation of a standard, and these impacts will be less than significant.

TABLE WSQ2-3
Maximum Modeled Impacts from Construction of HBEP and Demolition of Units 3 and 4

Pollutant	Averaging Period	Maximum Modeled Concentration (µg/m ³)	Background Concentration ^a (µg/m ³)	Total Predicted Concentration (µg/m ³)	State Standard (µg/m ³)	Federal Standard (µg/m ³)
NO ₂	1-hour ^b	111	132	243	339	—
	Federal 1-hour ^{b,c}	111	107	218	—	188
	Annual ^d	7.50	24.5	32.0	57	100
SO ₂	1-hour	0.28	26.2	26.5	655	—
	Federal 1-hour ^e	0.28	15.7	16.0	—	196
	3-hour	0.24	17.3	17.5	—	1,300
	24-hour	0.06	10.5	10.6	105	365
CO	1-hour	124	3,436	3,560	23,000	40,000
	8-hour	101	2,519	2,620	10,000	10,000
PM ₁₀	24-hour	237	56	293	50	150
	Annual	49.2	23.5	72.7	20	—
PM _{2.5}	24-hour ^c	52.6	28.8	81.4	—	35
	Annual	9.19	9.5	18.7	12	12

^aBackground concentrations were the highest concentrations monitored during 2009 through 2011 with the exception of the 3-hour SO₂ averaging period, which was taken as the highest concentrations monitored during 2008 through 2010.

^bThe maximum 1-hour NO₂ concentration includes an ambient NO₂ ratio of 0.80 (EPA, 2011) and an in-stack NO₂ to NO_x ratio of 0.20 (CAPCOA, 2011).

^cTotal predicted concentrations for the federal 1-hour NO₂ standard and 24-hour PM_{2.5} standard are the respective maximum modeled concentrations combined with the three-year average of 98th percentile background concentrations.

^dThe maximum annual NO₂ concentration includes an ambient NO₂ ratio of 0.75 (EPA, 2005).

^eTotal predicted concentrations for the federal 1-hour SO₂ standard are the maximum modeled concentrations combined with the three-year average of 99th percentile background concentrations.

For particulate matter, the annual and 24-hour PM₁₀ background concentrations exceed the state AAQS without adding the modeled concentrations, and the PM_{2.5} modeled concentrations are nearly equal to or exceed the AAQS without adding the background concentrations. As a result, the predicted scenario impacts will be greater than the AAQS without mitigation. Based on the modeling analysis, although fugitive dust is a significant contributor to the predicted concentrations, the maximum PM₁₀ and PM_{2.5} concentrations will remain at or near the property boundary and the implementation of construction mitigation measures presented in AFC Section 5.1.8.1, Construction Mitigation, is expected to reduce any offsite construction air quality impacts to less-than-significant levels.

For 1-hour NO₂, the maximum modeled concentration combined with the background concentration exceeds the federal 1-hour AAQS. The City of Huntington Beach has adopted a Noise Ordinance (Section 8.40) to address loud noises that may affect residents, businesses, and visitors. The Special Provisions chapter (8.40.090) of the Noise Ordinance specifically addresses construction noise by limiting construction activities to occur between the hours of 7:00 a.m. and 8:00 p.m. on weekdays, including Saturday. For the most part, the modeled concentrations causing exceedances of the federal 1-hour AAQS are associated only with hours during which construction activities would be restricted per the Noise Ordinance. As shown in Figure WSQ2-4, both residential and industrial locations near the HBEP property boundary will experience exceedances of the federal 1-hour AAQS. Based on the relative magnitude of impacts presented in Figure WSQ2-4, the residential areas surrounding the HBEP could experience up to 18 exceedances of the federal 1-hour AAQS during the 27-month period in which HBEP construction and Units 3 and 4 demolition activities overlap. However, because the modeled concentrations were based on the maximum monthly construction emissions, which occur for only 1 month of the construction overlap, actual 1-hour NO₂ impacts would be lower due to lower monthly NO_x emissions for the other months of the overlapping construction period. In addition, due to the relative short distance from the emission sources to the receptors, full conversion from NO_x to NO₂ would be unlikely to occur. The NO_x to NO₂ conversion process

requires time and the NO₂ exceedances occur within one-half mile from the emission source, which is unlikely a sufficient amount of time for NO_x to NO₂ conversion to occur. Therefore, it is expected that impacts resulting from daytime construction activities will be less than significant.

A summary of the dispersion modeling input files for this scenario, as well as the complete modeling results, are presented in Attachment WSQ2-4. The AERMOD input and output files have been separately prepared and are included with this submission on compact disc.

References:

California Air Pollution Control Officers Association (CAPCOA). 2011. *Modeling Compliance of the Federal 1-hour NO₂ NAAQS*. http://www.valleyair.org/busind/pto/Tox_Resources/CAPCOANO2GuidanceDocument10-27-11.pdf. Accessed First Quarter 2013.

U.S. Environmental Protection Agency (EPA). 2011. Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO₂ National Ambient Air Quality Standard. March.

U.S. Environmental Protection Agency (EPA). 2005. Guideline on Air Quality Models, 40 Code of Federal Regulations, Part 51, Appendix W. November.

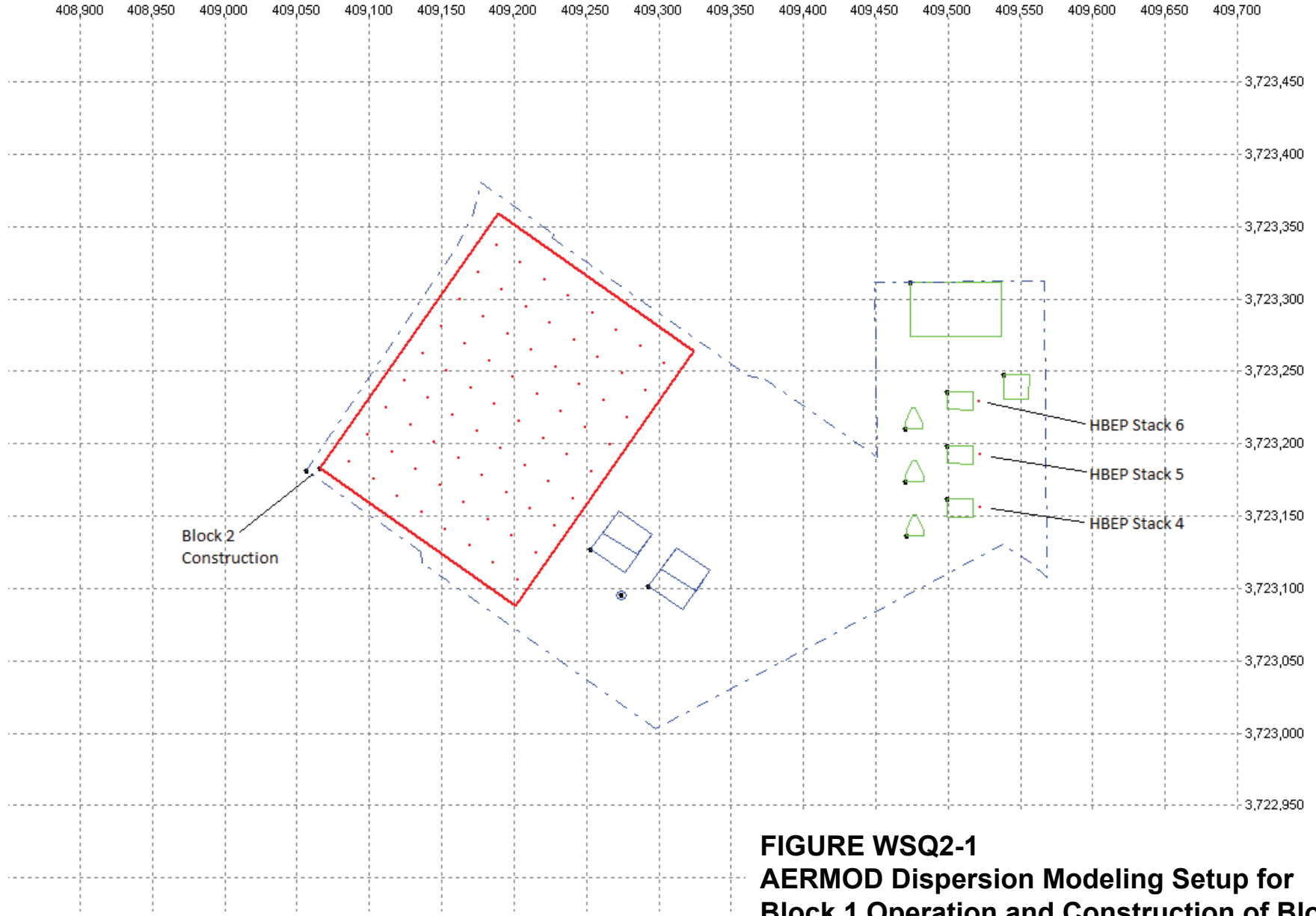


FIGURE WSQ2-1
AERMOD Dispersion Modeling Setup for
Block 1 Operation and Construction of Block 2
 AES Huntington Beach Energy Project
 Huntington Beach, California

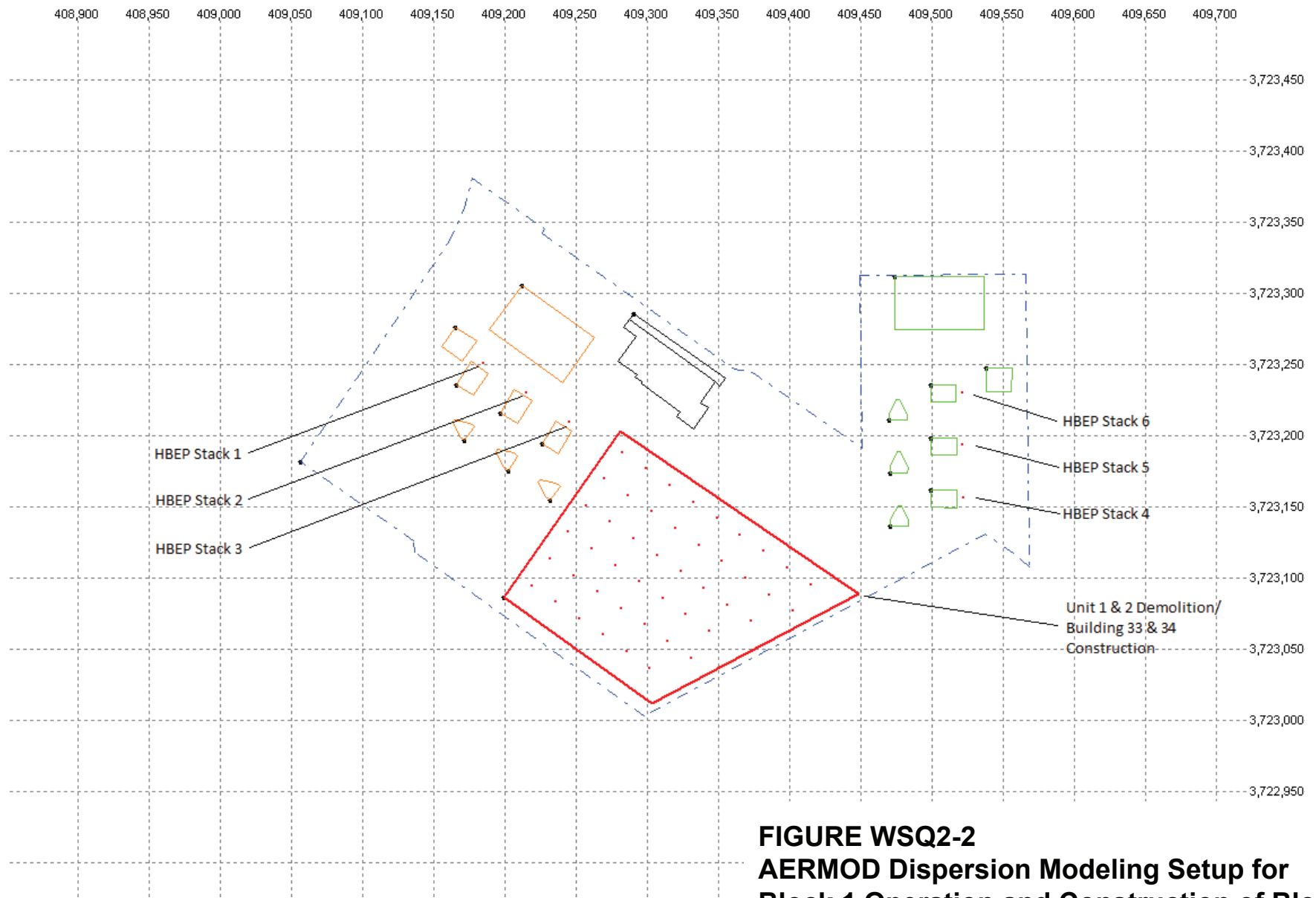


FIGURE WSQ2-2
AERMOD Dispersion Modeling Setup for
Block 1 Operation and Construction of Block 2
 AES Huntington Beach Energy Project
 Huntington Beach, California



FIGURE WSQ2-3
AERMOD Dispersion Modeling Setup for
Construction of HBEP and Demolition of
Units 3 and 4
 AES Huntington Beach Energy Project
 Huntington Beach, California

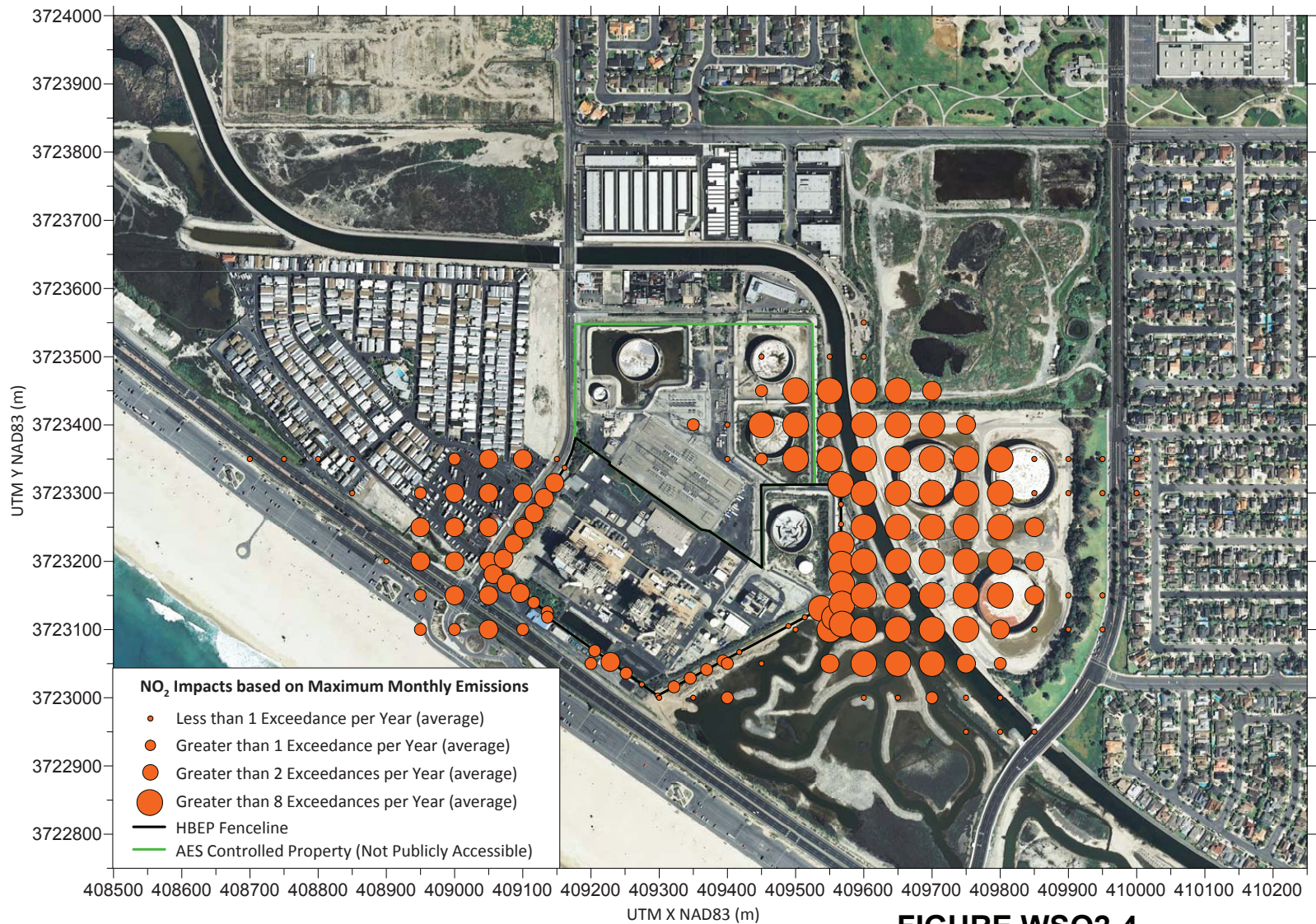


FIGURE WSQ2-4
HBEP Construction and Units 3 and 4
Demolition NO₂ Impacts
 AES Huntington Beach Energy Project
 Huntington Beach, California

**Attachment WSQ2-1
Dispersion Modeling Information for Block 1
Operation and Construction of Block 2**

Huntington Beach Energy Project
Attachment WSQ2-1 Table 1
Block 1 Operation and Construction of Block 2 Source Parameters for AERMOD Input
March 2013

Point Sources									
Pollutant	Source ID	Stack Release			Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
		Type (Beta)	Easting (X) (m)	Northing (Y) (m)					
1-hr NO ₂ , CO	Stack 4	Default	409522	3723157	3.66	36.6	461	15.4	5.49
	Stack 5	Default	409522	3723194	3.66	36.6	461	15.4	5.49
	Stack 6	Default	409522	3723230	3.66	36.6	461	15.4	5.49
SO ₂ , 24-hr PM ₁₀ , 24-hr PM _{2.5}	Stack 4	Default	409522	3723157	3.66	36.6	455	21.8	5.49
	Stack 5	Default	409522	3723194	3.66	36.6	455	21.8	5.49
	Stack 6	Default	409522	3723230	3.66	36.6	455	21.8	5.49
Annual NO ₂	Stack 4	Default	409522	3723157	3.66	36.6	471	23.6	5.49
	Stack 5	Default	409522	3723194	3.66	36.6	471	23.6	5.49
	Stack 6	Default	409522	3723230	3.66	36.6	471	23.6	5.49
Annual PM ₁₀	Stack 4	Default	409522	3723157	3.66	36.6	460	16.7	5.49
Annual PM _{2.5}	Stack 5	Default	409522	3723194	3.66	36.6	460	16.7	5.49
	Stack 6	Default	409522	3723230	3.66	36.6	460	16.7	5.49
All	W01	Horizontal	409086	3723188	3.7	4.6	533	18	0.127
All	W02	Horizontal	409103	3723177	3.7	4.6	533	18	0.127
All	W03	Horizontal	409120	3723165	3.7	4.6	533	18	0.127
All	W04	Horizontal	409136	3723153	3.7	4.6	533	18	0.127
All	W05	Horizontal	409153	3723142	3.7	4.6	533	18	0.127
All	W06	Horizontal	409169	3723130	3.7	4.6	533	18	0.127
All	W07	Horizontal	409186	3723119	3.7	4.6	533	18	0.127
All	W08	Horizontal	409203	3723107	3.7	4.6	533	18	0.127
All	W09	Horizontal	409099	3723207	3.7	4.6	533	18	0.127
All	W10	Horizontal	409116	3723195	3.7	4.6	533	18	0.127
All	W11	Horizontal	409132	3723184	3.7	4.6	533	18	0.127
All	W12	Horizontal	409149	3723172	3.7	4.6	533	18	0.127
All	W13	Horizontal	409165	3723160	3.7	4.6	533	18	0.127
All	W14	Horizontal	409182	3723149	3.7	4.6	533	18	0.127
All	W15	Horizontal	409199	3723137	3.7	4.6	533	18	0.127
All	W16	Horizontal	409215	3723126	3.7	4.6	533	18	0.127
All	W17	Horizontal	409112	3723226	3.7	4.6	533	18	0.127
All	W18	Horizontal	409128	3723214	3.7	4.6	533	18	0.127
All	W19	Horizontal	409145	3723202	3.7	4.6	533	18	0.127
All	W20	Horizontal	409162	3723191	3.7	4.6	533	18	0.127
All	W21	Horizontal	409178	3723179	3.7	4.6	533	18	0.127
All	W22	Horizontal	409195	3723168	3.7	4.6	533	18	0.127
All	W23	Horizontal	409211	3723156	3.7	4.6	533	18	0.127
All	W24	Horizontal	409228	3723144	3.7	4.6	533	18	0.127
All	W25	Horizontal	409124	3723244	3.7	4.6	533	18	0.127
All	W26	Horizontal	409141	3723233	3.7	4.6	533	18	0.127
All	W27	Horizontal	409158	3723221	3.7	4.6	533	18	0.127
All	W28	Horizontal	409174	3723209	3.7	4.6	533	18	0.127
All	W29	Horizontal	409191	3723198	3.7	4.6	533	18	0.127
All	W30	Horizontal	409207	3723186	3.7	4.6	533	18	0.127
All	W31	Horizontal	409224	3723175	3.7	4.6	533	18	0.127
All	W32	Horizontal	409241	3723163	3.7	4.6	533	18	0.127
All	W33	Horizontal	409137	3723263	3.7	4.6	533	18	0.127
All	W34	Horizontal	409154	3723251	3.7	4.6	533	18	0.127
All	W35	Horizontal	409170	3723240	3.7	4.6	533	18	0.127
All	W36	Horizontal	409187	3723228	3.7	4.6	533	18	0.127
All	W37	Horizontal	409204	3723217	3.7	4.6	533	18	0.127
All	W38	Horizontal	409220	3723205	3.7	4.6	533	18	0.127
All	W39	Horizontal	409237	3723193	3.7	4.6	533	18	0.127
All	W40	Horizontal	409253	3723182	3.7	4.6	533	18	0.127
All	W41	Horizontal	409150	3723282	3.7	4.6	533	18	0.127
All	W42	Horizontal	409166	3723270	3.7	4.6	533	18	0.127
All	W43	Horizontal	409183	3723258	3.7	4.6	533	18	0.127
All	W44	Horizontal	409200	3723247	3.7	4.6	533	18	0.127
All	W45	Horizontal	409216	3723235	3.7	4.6	533	18	0.127
All	W46	Horizontal	409233	3723224	3.7	4.6	533	18	0.127
All	W47	Horizontal	409249	3723212	3.7	4.6	533	18	0.127
All	W48	Horizontal	409266	3723200	3.7	4.6	533	18	0.127
All	W49	Horizontal	409163	3723300	3.7	4.6	533	18	0.127
All	W50	Horizontal	409179	3723289	3.7	4.6	533	18	0.127
All	W51	Horizontal	409196	3723277	3.7	4.6	533	18	0.127
All	W52	Horizontal	409212	3723266	3.7	4.6	533	18	0.127
All	W53	Horizontal	409229	3723254	3.7	4.6	533	18	0.127
All	W54	Horizontal	409246	3723242	3.7	4.6	533	18	0.127

Huntington Beach Energy Project
 Attachment WSQ2-1 Table 1
 Block 1 Operation and Construction of Block 2 Source Parameters for AERMOD Input
 March 2013

Point Sources

Pollutant	Source ID	Stack Release		Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)	
		Type (Beta)	Eastings (X) (m)						Northing (Y) (m)
All	W55	Horizontal	409262	3723231	3.7	4.6	533	18	0.127
All	W56	Horizontal	409279	3723219	3.7	4.6	533	18	0.127
All	W57	Horizontal	409175	3723319	3.7	4.6	533	18	0.127
All	W58	Horizontal	409192	3723307	3.7	4.6	533	18	0.127
All	W59	Horizontal	409208	3723296	3.7	4.6	533	18	0.127
All	W60	Horizontal	409225	3723284	3.7	4.6	533	18	0.127
All	W61	Horizontal	409242	3723273	3.7	4.6	533	18	0.127
All	W62	Horizontal	409258	3723261	3.7	4.6	533	18	0.127
All	W63	Horizontal	409275	3723249	3.7	4.6	533	18	0.127
All	W64	Horizontal	409291	3723238	3.7	4.6	533	18	0.127
All	W65	Horizontal	409188	3723338	3.7	4.6	533	18	0.127
All	W66	Horizontal	409205	3723326	3.7	4.6	533	18	0.127
All	W67	Horizontal	409221	3723315	3.7	4.6	533	18	0.127
All	W68	Horizontal	409238	3723303	3.7	4.6	533	18	0.127
All	W69	Horizontal	409254	3723291	3.7	4.6	533	18	0.127
All	W70	Horizontal	409271	3723280	3.7	4.6	533	18	0.127
All	W71	Horizontal	409288	3723268	3.7	4.6	533	18	0.127
All	W72	Horizontal	409304	3723257	3.7	4.6	533	18	0.127

Area Sources

Source ID	Eastings (X) (m)	Northing (Y) (m)	Base Elevation (m)	Release Height (m)	Easterly Length (m)	Northerly Length (m)	Angle from North	Vertical Dimension (m)
FUGW	409066	3723183	3.7	1.0	165	215	35	0.93

Huntington Beach Energy Project
 Attachment WSQ2-1 Table 2
 Block 1 Operation and Construction of Block 2 Modeling Parameters - Emission Rates
 March 2013

Emission Rates for 1-hr, 3-hr, 8-hr, and 24-hr Modeling ^{a,b}

Source ID	1-hr NO ₂		1-hr CO		8-hr CO		1-hr SO ₂		3-hr SO ₂		24-hr SO ₂		24-hr PM ₁₀		24-hr PM _{2.5}	
	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)
Stack 4	3.21	25.5	14.5	115	5.72	45.4	0.31	2.45	0.31	2.45	0.31	2.45	1.20	9.50	1.20	9.50
Stack 5	3.21	25.5	14.5	115	5.72	45.4	0.31	2.45	0.31	2.45	0.31	2.45	1.20	9.50	1.20	9.50
Stack 6	3.21	25.5	14.5	115	5.72	45.4	0.31	2.45	0.31	2.45	0.31	2.45	1.20	9.50	1.20	9.50
W(1-72)	0.52	4.12	0.41	3.23	0.41	3.23	1.16E-03	9.17E-03	1.16E-03	9.17E-03	4.82E-04	3.82E-03	0.008	0.066	0.010	0.076
FUGW	-	-	-	-	-	-	-	-	-	-	-	-	0.050	0.400	0.004	0.031
Maximum Month	48		48		48		48		48		48		46		46	

Emission Rates for Annual Modeling ^{a,b}

Source ID	Annual NO ₂		Annual PM ₁₀		Annual PM _{2.5}	
	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)
Stack 4	1.18	9.34	0.52	4.11	0.52	4.11
Stack 5	1.18	9.34	0.52	4.11	0.52	4.11
Stack 6	1.18	9.34	0.52	4.11	0.52	4.11
W(1-72)	0.11	0.90	0.005	0.041	0.005	0.041
FUGW	-	-	0.030	0.24	0.003	0.024
Maximum Months	46-57		46-57		46-57	

^a Emission rates for construction exhaust point sources, W(1-72) source group, are presented as the sum total for all sources in the group.

^b Block 1 operation emissions were obtained from AFC Table 5.1-24, submitted in June 2012. Block 2 construction emissions were obtained from Table 5.1A.46R from Appendix 5.1AR, submitted on February 22, 2013 as Attachment DR75-1 to Data Responses, Set 2A.

Huntington Beach Energy Project

Attachment WSQ2-1 Table 3

Block 1 Operation and Construction of Block 2 Building Parameters for AERMOD Input

March 2013

Building Name	Number of Tiers	Tier Number	Base Elevation (m)	Tier Height (m)	Number of Corners	Corner 1 East (X) (m)	Corner 1 North (Y) (m)	Corner 2 East (X) (m)	Corner 2 North (Y) (m)	Corner 3 East (X) (m)	Corner 3 North (Y) (m)
ACC1	1	1	3.66	31.7	4	409474	3723311	409536	3723311	409537	3723274
STG1	1	1	3.66	12.2	4	409538	3723247	409556	3723247	409556	3723231
CTG4	1	1	3.66	28.0	4	409500	3723162	409517	3723162	409517	3723149
CTG5	1	1	3.66	28.0	4	409500	3723198	409517	3723198	409517	3723186
CTG6	1	1	3.66	28.0	4	409499	3723236	409517	3723236	409517	3723223
AIRIN6	1	1	3.66	11.6	6	409470	3723211	409470	3723215	409475	3723225
AIRIN5	1	1	3.66	11.6	6	409471	3723174	409471	3723178	409476	3723188
AIRIN4	1	1	3.66	11.6	6	409471	3723136	409471	3723141	409476	3723151
B1	2	1	3.66	23.2	4	409293	3723102	409312	3723128	409335	3723112
B1	*	2	*	37.6	4	409301	3723114	409312	3723128	409335	3723112
B2	2	1	3.66	23.2	4	409252	3723127	409272	3723153	409295	3723137
B2	*	2	*	37.6	4	409261	3723139	409272	3723153	409295	3723137

Tank Name	Base Elevation (m)	Center East (X) (m)	Center North (Y) (m)	Tank Height (m)	Tank Diameter (m)
Stack12	3.66	409274	3723095	61.0	6.27

Huntington Beach Energy Project

Attachment WSQ2-1 Table 3

Block 1 Operation and Construction of Block 2 Building Parameters for AERMOD Input

March 2013

Building Name	Number of Tiers	Tier Number	Base Elevation (m)	Tier Height (m)	Number of Corners	Corner 4 East (X) (m)	Corner 4 North (Y) (m)	Corner 5 East (X) (m)	Corner 5 North (Y) (m)	Corner 6 East (X) (m)	Corner 6 North (Y) (m)
ACC1	1	1	3.66	31.7	4	409474	3723274				
STG1	1	1	3.66	12.2	4	409538	3723231				
CTG4	1	1	3.66	28.0	4	409500	3723150				
CTG5	1	1	3.66	28.0	4	409500	3723186				
CTG6	1	1	3.66	28.0	4	409499	3723224				
AIRIN6	1	1	3.66	11.6	6	409477	3723225	409482	3723215	409482	3723210
AIRIN5	1	1	3.66	11.6	6	409478	3723188	409483	3723178	409483	3723174
AIRIN4	1	1	3.66	11.6	6	409478	3723151	409483	3723140	409483	3723136
B1	2	1	3.66	23.2	4	409317	3723086				
B1	*	2	*	37.6	4	409326	3723098				
B2	2	1	3.66	23.2	4	409277	3723111				
B2	*	2	*	37.6	4	409285	3723123				

Tank Name	Base Elevation (m)	Center East (X) (m)	Center North (Y) (m)	Tank Height (m)	Tank Diameter (m)
Stack12	3.66	409274	3723095	61.0	6.27

Huntington Beach Energy Project
 Attachment WSQ2-1 Table 4
 Block 1 Operation and Construction of Block 2 Modeling Results
 March 2013

Source	Year	NO ₂ (µg/m ³)		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
		1-hr ^a	Annual ^b	1-hr	8-hr	1-hr	3-hr	24-hr	24-hr	Annual	24-hr	Annual
ALL		59.6	3.12	71.9	41.2	0.92	0.64	0.31	31.4	8.23	3.14	1.05
OPERATION	2005	9.76	0.33	55.2	12.3	0.92	0.63	0.30	1.18	0.23	1.18	0.23
CONSTRUCTION		57.7	3.04	56.6	41.1	0.16	0.15	0.033	31.3	8.17	2.90	0.98
ALL		58.9	3.14	71.6	42.2	0.82	0.69	0.25	27.9	8.15	2.95	1.03
OPERATION	2006	9.49	0.31	53.7	10.9	0.82	0.64	0.24	0.94	0.21	0.94	0.21
CONSTRUCTION		57.2	3.06	56.2	41.7	0.16	0.14	0.034	27.4	8.09	2.55	0.97
ALL		61.2	2.98	72.7	45.4	0.94	0.79	0.27	28.6	7.95	2.82	1.00
OPERATION	2007	9.61	0.24	54.3	13.0	0.93	0.79	0.26	1.02	0.16	1.02	0.16
CONSTRUCTION		59.0	2.92	57.9	45.3	0.16	0.14	0.037	28.4	7.90	2.57	0.95

^a The maximum 1-hour NO₂ concentration includes an ambient NO₂ ratio of 0.80 and an in-stack NO₂ to NO_x ratio of 0.20 for construction sources and 0.50 for operational sources.

^b The maximum annual NO₂ concentration includes an ambient NO₂ ratio of 0.75.

Attachment WSQ2-2
Dispersion Modeling Information for Operation of
HBEP with Demolition of Units 1 and 2

Huntington Beach Energy Project
Attachment WSQ2-2 Table 1
Operation of HBEP with Demolition of Units 1 and 2 Source Parameters for AERMOD Input
March 2013

Point Sources										
Pollutant	Source ID	Stack Release		Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
		Type (Beta)								
1-hr NO ₂ , CO	Stack 1	Default		409185	3723252	3.66	36.6	461	15.4	5.49
	Stack 2	Default		409216	3723231	3.66	36.6	461	15.4	5.49
	Stack 3	Default		409245	3723210	3.66	36.6	461	15.4	5.49
	Stack 4	Default		409522	3723157	3.66	36.6	461	15.4	5.49
	Stack 5	Default		409522	3723194	3.66	36.6	461	15.4	5.49
	Stack 6	Default		409522	3723230	3.66	36.6	461	15.4	5.49
SO ₂ , 24-hr PM ₁₀ , 24-hr PM _{2.5}	Stack 1	Default		409185	3723252	3.66	36.6	455	21.8	5.49
	Stack 2	Default		409216	3723231	3.66	36.6	455	21.8	5.49
	Stack 3	Default		409245	3723210	3.66	36.6	455	21.8	5.49
	Stack 4	Default		409522	3723157	3.66	36.6	455	21.8	5.49
	Stack 5	Default		409522	3723194	3.66	36.6	455	21.8	5.49
	Stack 6	Default		409522	3723230	3.66	36.6	455	21.8	5.49
Annual NO ₂	Stack 1	Default		409185	3723252	3.66	36.6	471	23.6	5.49
	Stack 2	Default		409216	3723231	3.66	36.6	471	23.6	5.49
	Stack 3	Default		409245	3723210	3.66	36.6	471	23.6	5.49
	Stack 4	Default		409522	3723157	3.66	36.6	471	23.6	5.49
	Stack 5	Default		409522	3723194	3.66	36.6	471	23.6	5.49
	Stack 6	Default		409522	3723230	3.66	36.6	471	23.6	5.49
Annual PM ₁₀ , Annual PM _{2.5}	Stack 1	Default		409185	3723252	3.66	36.6	460	16.7	5.49
	Stack 2	Default		409216	3723231	3.66	36.6	460	16.7	5.49
	Stack 3	Default		409245	3723210	3.66	36.6	460	16.7	5.49
	Stack 4	Default		409522	3723157	3.66	36.6	460	16.7	5.49
	Stack 5	Default		409522	3723194	3.66	36.6	460	16.7	5.49
	Stack 6	Default		409522	3723230	3.66	36.6	460	16.7	5.49
All	S01	Horizontal		409219	3723095	3.66	4.60	533	18.0	0.127
All	S02	Horizontal		409236	3723084	3.66	4.60	533	18.0	0.127
All	S03	Horizontal		409252	3723072	3.66	4.60	533	18.0	0.127
All	S04	Horizontal		409269	3723061	3.66	4.60	533	18.0	0.127
All	S05	Horizontal		409286	3723049	3.66	4.60	533	18.0	0.127
All	S06	Horizontal		409302	3723037	3.66	4.60	533	18.0	0.127
All	S07	Horizontal		409232	3723114	3.66	4.60	533	18.0	0.127
All	S08	Horizontal		409248	3723102	3.66	4.60	533	18.0	0.127
All	S09	Horizontal		409265	3723091	3.66	4.60	533	18.0	0.127
All	S10	Horizontal		409282	3723079	3.66	4.60	533	18.0	0.127
All	S11	Horizontal		409298	3723068	3.66	4.60	533	18.0	0.127
All	S12	Horizontal		409315	3723056	3.66	4.60	533	18.0	0.127
All	S13	Horizontal		409245	3723133	3.66	4.60	533	18.0	0.127
All	S14	Horizontal		409261	3723121	3.66	4.60	533	18.0	0.127
All	S15	Horizontal		409278	3723110	3.66	4.60	533	18.0	0.127
All	S16	Horizontal		409294	3723098	3.66	4.60	533	18.0	0.127
All	S17	Horizontal		409311	3723086	3.66	4.60	533	18.0	0.127
All	S18	Horizontal		409328	3723075	3.66	4.60	533	18.0	0.127
All	S19	Horizontal		409257	3723151	3.66	4.60	533	18.0	0.127
All	S20	Horizontal		409274	3723140	3.66	4.60	533	18.0	0.127
All	S21	Horizontal		409290	3723128	3.66	4.60	533	18.0	0.127
All	S22	Horizontal		409307	3723117	3.66	4.60	533	18.0	0.127
All	S23	Horizontal		409324	3723105	3.66	4.60	533	18.0	0.127
All	S24	Horizontal		409340	3723093	3.66	4.60	533	18.0	0.127
All	S25	Horizontal		409270	3723170	3.66	4.60	533	18.0	0.127
All	S26	Horizontal		409287	3723159	3.66	4.60	533	18.0	0.127
All	S27	Horizontal		409303	3723147	3.66	4.60	533	18.0	0.127
All	S28	Horizontal		409320	3723135	3.66	4.60	533	18.0	0.127
All	S29	Horizontal		409336	3723124	3.66	4.60	533	18.0	0.127
All	S30	Horizontal		409353	3723112	3.66	4.60	533	18.0	0.127
All	S31	Horizontal		409283	3723189	3.66	4.60	533	18.0	0.127
All	S32	Horizontal		409299	3723177	3.66	4.60	533	18.0	0.127
All	S33	Horizontal		409316	3723166	3.66	4.60	533	18.0	0.127
All	S34	Horizontal		409332	3723154	3.66	4.60	533	18.0	0.127
All	S35	Horizontal		409349	3723142	3.66	4.60	533	18.0	0.127
All	S36	Horizontal		409366	3723131	3.66	4.60	533	18.0	0.127
All	S37	Horizontal		409331	3723044	3.66	4.60	533	18.0	0.127
All	S38	Horizontal		409344	3723063	3.66	4.60	533	18.0	0.127
All	S39	Horizontal		409357	3723082	3.66	4.60	533	18.0	0.127
All	S40	Horizontal		409373	3723070	3.66	4.60	533	18.0	0.127
All	S41	Horizontal		409370	3723101	3.66	4.60	533	18.0	0.127
All	S42	Horizontal		409386	3723089	3.66	4.60	533	18.0	0.127
All	S43	Horizontal		409403	3723077	3.66	4.60	533	18.0	0.127
All	S44	Horizontal		409382	3723119	3.66	4.60	533	18.0	0.127
All	S45	Horizontal		409399	3723108	3.66	4.60	533	18.0	0.127
All	S46	Horizontal		409415	3723096	3.66	4.60	533	18.0	0.127

Area Poly Sources

Source ID	Base		Number of Vertices	Vertical Dimension (m)	Easting (X1) (m)	Northing (Y1) (m)	Easting (X2) (m)	Northing (Y2) (m)	Easting (X3) (m)	Northing (Y3) (m)	Easting (X4) (m)	Northing (Y4) (m)
	Elevation (m)	Release Height (m)										
FUGS	3.66	1.00	4.0	0.93	409199	3723086	409281	3723203	409449	3723089	409304	3723012

Huntington Beach Energy Project

Attachment WSQ2-2 Table 2

Operation of HBEP with Demolition of Units 1 and 2 Modeling Parameters - Emission Rates

March 2013

Emission Rates for 1-hr, 3-hr, 8-hr, and 24-hr Modeling ^{a,b}

Source ID	1-hr NO ₂		1-hr CO		8-hr CO		1-hr SO ₂		3-hr SO ₂		24-hr SO ₂		24-hr PM ₁₀		24-hr PM _{2.5}	
	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)
Stack 1	3.21	25.5	14.5	115	5.72	45.4	0.31	2.45	0.31	2.45	0.31	2.45	1.20	9.50	1.20	9.50
Stack 2	3.21	25.5	14.5	115	5.72	45.4	0.31	2.45	0.31	2.45	0.31	2.45	1.20	9.50	1.20	9.50
Stack 3	3.21	25.5	14.5	115	5.72	45.4	0.31	2.45	0.31	2.45	0.31	2.45	1.20	9.50	1.20	9.50
Stack 4	3.21	25.5	14.5	115	5.72	45.4	0.31	2.45	0.31	2.45	0.31	2.45	1.20	9.50	1.20	9.50
Stack 5	3.21	25.5	14.5	115	5.72	45.4	0.31	2.45	0.31	2.45	0.31	2.45	1.20	9.50	1.20	9.50
Stack 6	3.21	25.5	14.5	115	5.72	45.4	0.31	2.45	0.31	2.45	0.31	2.45	1.20	9.50	1.20	9.50
S(1-46)	0.59	4.64	0.76	6.04	0.76	6.04	1.59E-03	1.26E-02	1.59E-03	1.26E-02	6.63E-04	5.26E-03	0.012	0.099	0.012	0.099
FUGS	-	-	-	-	-	-	-	-	-	-	-	-	0.29	2.31	0.052	0.415
Maximum Month	80		80		80		80		80		80		80		80	

Emission Rates for Annual Modeling ^{a,b}

Source ID	Annual NO ₂		Annual PM ₁₀		Annual PM _{2.5}	
	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)
Stack 1	1.18	9.34	0.52	4.11	0.52	4.11
Stack 2	1.18	9.34	0.52	4.11	0.52	4.11
Stack 3	1.18	9.34	0.52	4.11	0.52	4.11
Stack 4	1.18	9.34	0.52	4.11	0.52	4.11
Stack 5	1.18	9.34	0.52	4.11	0.52	4.11
Stack 6	1.18	9.34	0.52	4.11	0.52	4.11
S(1-46)	0.15	1.19	0.007	0.058	0.007	0.058
FUGS	-	-	0.15	1.19	0.024	0.19
Maximum Months	78-89		77-88		77-88	

^a Emission rates for construction exhaust point sources, S(1-46) source group, are presented as the sum total for all sources in the group.

^b Block 1 and 2 operation emissions were obtained from AFC Table 5.1-24, submitted in June 2012, and Units 1 and 2 demolition emissions were obtained from Table 5.1A.46R from Appendix 5.1AR, submitted on February 22, 2013 as Attachment DR75-1 to Data Responses, Set 2A.

Huntington Beach Energy Project

Attachment WSQ2-2 Table 3

Operation of HBEP with Demolition of Units 1 and 2 Building Parameters for AERMOD Input

March 2013

Building Name	Number of Tiers	Tier Number	Base Elevation (m)	Tier Height (m)	Number of Corners	Corner 1 East (X) (m)	Corner 1 North (Y) (m)	Corner 2 East (X) (m)	Corner 2 North (Y) (m)	Corner 3 East (X) (m)
Admin	2	1	3.66	3.35	16	409290	3723286	409355	3723240	409351
Admin	*	2	*	5.18	14	409287	3723281	409348	3723237	409338
STG2	1	1	3.66	12.19	4	409165	3723276	409180	3723266	409170
ACC2	1	1	3.66	31.70	4	409212	3723305	409263	3723269	409241
ACC1	1	1	3.66	31.70	4	409474	3723311	409536	3723311	409537
STG1	1	1	3.66	12.19	4	409538	3723247	409556	3723247	409556
CTG4	1	1	3.66	28.04	4	409500	3723162	409517	3723162	409517
CTG5	1	1	3.66	28.04	4	409500	3723198	409517	3723198	409517
CTG6	1	1	3.66	28.04	4	409499	3723236	409517	3723236	409517
CTG1	1	1	3.66	28.04	4	409166	3723235	409176	3723252	409188
CTG2	1	1	3.66	28.04	4	409197	3723216	409207	3723232	409219
CTG3	1	1	3.66	28.04	4	409226	3723194	409236	3723210	409247
AIRIN6	1	1	3.66	11.61	6	409470	3723211	409470	3723215	409475
AIRIN5	1	1	3.66	11.61	6	409471	3723174	409471	3723178	409476
AIRIN4	1	1	3.66	11.61	6	409471	3723136	409471	3723141	409476
AIRIN1	1	1	3.66	11.61	6	409172	3723196	409169	3723199	409163
AIRIN2	1	1	3.66	11.61	6	409202	3723175	409199	3723178	409194
AIRIN3	1	1	3.66	11.61	6	409232	3723154	409229	3723157	409224

Huntington Beach Energy Project

Attachment WSQ2-2 Table 3

Operation of HBEP with Demolition of Units 1 and 2 Building Parameters for AERMOD Input

March 2013

Building Name	Number of Tiers	Tier Number	Base Elevation (m)	Tier Height (m)	Number of Corners	Corner 3 North (Y) (m)	Corner 4 East (X) (m)	Corner 4 North (Y) (m)	Corner 5 East (X) (m)	Corner 5 North (Y) (m)
Admin	2	1	3.66	3.35	16	3723235	409348	3723237	409338	3723223
Admin	*	2	*	5.18	14	3723223	409343	3723219	409333	3723205
STG2	1	1	3.66	12.19	4	3723252	409156	3723262		
ACC2	1	1	3.66	31.70	4	3723237	409189	3723274		
ACC1	1	1	3.66	31.70	4	3723274	409474	3723274		
STG1	1	1	3.66	12.19	4	3723231	409538	3723231		
CTG4	1	1	3.66	28.04	4	3723149	409500	3723150		
CTG5	1	1	3.66	28.04	4	3723186	409500	3723186		
CTG6	1	1	3.66	28.04	4	3723223	409499	3723224		
CTG1	1	1	3.66	28.04	4	3723244	409178	3723228		
CTG2	1	1	3.66	28.04	4	3723224	409209	3723208		
CTG3	1	1	3.66	28.04	4	3723203	409237	3723187		
AIRIN6	1	1	3.66	11.61	6	3723225	409477	3723225	409482	3723215
AIRIN5	1	1	3.66	11.61	6	3723188	409478	3723188	409483	3723178
AIRIN4	1	1	3.66	11.61	6	3723151	409478	3723151	409483	3723140
AIRIN1	1	1	3.66	11.61	6	3723209	409164	3723211	409176	3723208
AIRIN2	1	1	3.66	11.61	6	3723188	409195	3723190	409206	3723187
AIRIN3	1	1	3.66	11.61	6	3723167	409225	3723169	409236	3723166

Huntington Beach Energy Project

Attachment WSQ2-2 Table 3

Operation of HBEP with Demolition of Units 1 and 2 Building Parameters for AERMOD Input

March 2013

Building Name	Number of Tiers	Tier Number	Base Elevation (m)	Tier Height (m)	Number of Corners	Corner 6 East (X) (m)	Corner 6 North (Y) (m)	Corner 7 East (X) (m)	Corner 7 North (Y) (m)	Corner 8 East (X) (m)
Admin	2	1	3.66	3.35	16	409343	3723219	409333	3723205	409321
Admin	*	2	*	5.18	14	409321	3723213	409323	3723216	409296
STG2	1	1	3.66	12.19	4					
ACC2	1	1	3.66	31.70	4					
ACC1	1	1	3.66	31.70	4					
STG1	1	1	3.66	12.19	4					
CTG4	1	1	3.66	28.04	4					
CTG5	1	1	3.66	28.04	4					
CTG6	1	1	3.66	28.04	4					
CTG1	1	1	3.66	28.04	4					
CTG2	1	1	3.66	28.04	4					
CTG3	1	1	3.66	28.04	4					
AIRIN6	1	1	3.66	11.61	6	409482	3723210			
AIRIN5	1	1	3.66	11.61	6	409483	3723174			
AIRIN4	1	1	3.66	11.61	6	409483	3723136			
AIRIN1	1	1	3.66	11.61	6	409179	3723206			
AIRIN2	1	1	3.66	11.61	6	409209	3723185			
AIRIN3	1	1	3.66	11.61	6	409239	3723164			

Huntington Beach Energy Project

Attachment WSQ2-2 Table 3

Operation of HBEP with Demolition of Units 1 and 2 Building Parameters for AERMOD Input

March 2013

Building Name	Number of Tiers	Tier Number	Base Elevation (m)	Tier Height (m)	Number of Corners	Corner 8 North (Y) (m)	Corner 9 East (X) (m)	Corner 9 North (Y) (m)	Corner 10 East (X) (m)	Corner 10 North (Y) (m)
Admin	2	1	3.66	3.35	16	3723213	409323	3723216	409296	3723237
Admin	*	2	*	5.18	14	3723237	409296	3723237	409292	3723241
STG2	1	1	3.66	12.19	4					
ACC2	1	1	3.66	31.70	4					
ACC1	1	1	3.66	31.70	4					
STG1	1	1	3.66	12.19	4					
CTG4	1	1	3.66	28.04	4					
CTG5	1	1	3.66	28.04	4					
CTG6	1	1	3.66	28.04	4					
CTG1	1	1	3.66	28.04	4					
CTG2	1	1	3.66	28.04	4					
CTG3	1	1	3.66	28.04	4					
AIRIN6	1	1	3.66	11.61	6					
AIRIN5	1	1	3.66	11.61	6					
AIRIN4	1	1	3.66	11.61	6					
AIRIN1	1	1	3.66	11.61	6					
AIRIN2	1	1	3.66	11.61	6					
AIRIN3	1	1	3.66	11.61	6					

Huntington Beach Energy Project

Attachment WSQ2-2 Table 3

Operation of HBEP with Demolition of Units 1 and 2 Building Parameters for AERMOD Input

March 2013

Building Name	Number of Tiers	Tier Number	Base Elevation (m)	Tier Height (m)	Number of Corners	Corner 11 East (X) (m)	Corner 11 North (Y) (m)	Corner 12 East (X) (m)	Corner 12 North (Y) (m)	Corner 13 East (X) (m)
Admin	2	1	3.66	3.35	16	409296	3723237	409292	3723241	409293
Admin	*	2	*	5.18	14	409293	3723243	409279	3723252	409292
STG2	1	1	3.66	12.19	4					
ACC2	1	1	3.66	31.70	4					
ACC1	1	1	3.66	31.70	4					
STG1	1	1	3.66	12.19	4					
CTG4	1	1	3.66	28.04	4					
CTG5	1	1	3.66	28.04	4					
CTG6	1	1	3.66	28.04	4					
CTG1	1	1	3.66	28.04	4					
CTG2	1	1	3.66	28.04	4					
CTG3	1	1	3.66	28.04	4					
AIRIN6	1	1	3.66	11.61	6					
AIRIN5	1	1	3.66	11.61	6					
AIRIN4	1	1	3.66	11.61	6					
AIRIN1	1	1	3.66	11.61	6					
AIRIN2	1	1	3.66	11.61	6					
AIRIN3	1	1	3.66	11.61	6					

Huntington Beach Energy Project

Attachment WSQ2-2 Table 3

Operation of HBEP with Demolition of Units 1 and 2 Building Parameters for AERMOD Input

March 2013

Building Name	Number of Tiers	Tier Number	Base Elevation (m)	Tier Height (m)	Number of Corners	Corner 13 North (Y) (m)	Corner 14 East (X) (m)	Corner 14 North (Y) (m)	Corner 15 East (X) (m)	Corner 15 North (Y) (m)
Admin	2	1	3.66	3.35	16	3723243	409279	3723252	409292	3723270
Admin	*	2	*	5.18	14	3723270	409283	3723276		
STG2	1	1	3.66	12.19	4					
ACC2	1	1	3.66	31.70	4					
ACC1	1	1	3.66	31.70	4					
STG1	1	1	3.66	12.19	4					
CTG4	1	1	3.66	28.04	4					
CTG5	1	1	3.66	28.04	4					
CTG6	1	1	3.66	28.04	4					
CTG1	1	1	3.66	28.04	4					
CTG2	1	1	3.66	28.04	4					
CTG3	1	1	3.66	28.04	4					
AIRIN6	1	1	3.66	11.61	6					
AIRIN5	1	1	3.66	11.61	6					
AIRIN4	1	1	3.66	11.61	6					
AIRIN1	1	1	3.66	11.61	6					
AIRIN2	1	1	3.66	11.61	6					
AIRIN3	1	1	3.66	11.61	6					

Huntington Beach Energy Project

Attachment WSQ2-2 Table 3

Operation of HBEP with Demolition of Units 1 and 2 Building Parameters for AERMOD Input

March 2013

Building Name	Number of Tiers	Tier Number	Base Elevation (m)	Tier Height (m)	Number of Corners	Corner 16 East (X) (m)	Corner 16 North (Y) (m)
Admin	2	1	3.66	3.35	16	409283	3723276
Admin	*	2	*	5.18	14		
STG2	1	1	3.66	12.19	4		
ACC2	1	1	3.66	31.70	4		
ACC1	1	1	3.66	31.70	4		
STG1	1	1	3.66	12.19	4		
CTG4	1	1	3.66	28.04	4		
CTG5	1	1	3.66	28.04	4		
CTG6	1	1	3.66	28.04	4		
CTG1	1	1	3.66	28.04	4		
CTG2	1	1	3.66	28.04	4		
CTG3	1	1	3.66	28.04	4		
AIRIN6	1	1	3.66	11.61	6		
AIRIN5	1	1	3.66	11.61	6		
AIRIN4	1	1	3.66	11.61	6		
AIRIN1	1	1	3.66	11.61	6		
AIRIN2	1	1	3.66	11.61	6		
AIRIN3	1	1	3.66	11.61	6		

Huntington Beach Energy Project
 Attachment WSQ2-2 Table 4
 Operation of HBEP with Demolition of Units 1 and 2 Modeling Results
 March 2013

Source	Year	NO ₂ (µg/m ³)		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
		1-hr ^a	Annual ^b	1-hr	8-hr	1-hr	3-hr	24-hr	24-hr	Annual	24-hr	Annual
ALL		74.0	3.63	138	87.6	1.41	1.22	0.58	213	26.6	39.0	4.43
OPERATION	2005	16.5	0.65	101	23.8	1.41	1.19	0.58	2.24	0.44	2.24	0.44
CONSTRUCTION		71.7	3.49	125	86.8	0.26	0.22	0.057	212	26.5	38.7	4.33
ALL		75.0	3.56	168	89.8	1.55	1.29	0.48	190	28.3	34.9	4.70
OPERATION	2006	28.1	0.60	159	22.4	1.55	1.25	0.47	1.83	0.41	1.83	0.41
CONSTRUCTION		72.5	3.44	126	89.4	0.26	0.23	0.052	190	28.2	34.7	4.62
ALL		76.5	3.54	162	100	2.14	1.53	0.62	190	30.2	35.0	5.00
OPERATION	2007	28.4	0.47	161	29.8	2.13	1.53	0.62	2.40	0.32	2.40	0.32
CONSTRUCTION		74.1	3.42	129	100	0.27	0.22	0.062	190	30.1	34.7	4.92

^a The maximum 1-hour NO₂ concentration includes an ambient NO₂ ratio of 0.80 and an in-stack NO₂ to NO_x ratio of 0.20 for construction sources and 0.50 for operational sources.

^b The maximum annual NO₂ concentration includes an ambient NO₂ ratio of 0.75.

**Attachment WSQ2-3
Construction Emission Estimates for
Units 3 and 4 Demolition**

ADDENDUM TO AFC APPENDIX 5.1A

Construction Emission Estimates

(Criteria and Greenhouse Gas)

Tables 5.1A.49 through 5.1A.57 summarize the construction emissions from the demolition of existing Units 3 and 4.

Table 5.1A.49	Onsite Construction Equipment Exhaust Emissions
Table 5.1A.50	Onsite Motor Vehicle Exhaust Emissions
Table 5.1A.51	Onsite Demolition Fugitive Dust Emissions
Table 5.1A.52	Offsite Motor Vehicle Exhaust and Fugitive Dust Emissions
Table 5.1A.53	Equations Used to Calculate Criteria Pollutant and GHG Emissions
Table 5.1A.54	Number of Onsite Construction Equipment and Motor Vehicles
Table 5.1A.55	Construction Equipment Exhaust Criteria Pollutant Emission Factors
Table 5.1A.56	Onsite and Offsite Motor Vehicle Criteria Pollutant Emission Factors
Table 5.1A.57	Onsite and Offsite Greenhouse Gas Emission Factors

Tables 5.1A.58 through 5.1A.60 summarize the construction emissions from all stages of the project and cumulative projects.

Table 5.1A.58	Onsite Construction Exhaust and Fugitive Emissions Summary
Table 5.1A.59	Offsite Construction Exhaust and Fugitive Emissions Summary
Table 5.1A.60	Onsite and Offsite Construction Exhaust and Fugitive Emissions Summary

Table 5.1A.49 Onsite Construction Equipment Exhaust Emissions

Construction Equipment CO Emissions from Units 3 & 4 Demolition

Onsite Equipment	CO Emissions (lbs/month)																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Water Truck	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	66.57	
Cranes	39.32	39.32	39.32	39.32	39.32	39.32	39.32	39.32	78.65	78.65	117.97	117.97	117.97	117.97	78.65	78.65	78.65	78.65	78.65	78.65	78.65	78.65	78.65	78.65	78.65	117.97	117.97	
Rubber Tired Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.35	51.35	51.35	51.35	51.35	51.35	51.35	51.35	51.35	51.35	51.35	51.35	51.35	51.35	51.35	51.35	102.69	102.69	102.69	
Air Compressor	57.77	57.77	57.77	57.77	57.77	57.77	57.77	57.77	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	115.54	
Forklift	57.15	57.15	57.15	57.15	57.15	57.15	57.15	57.15	57.15	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	114.30	
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	259.65	259.65	389.48	389.48	519.30	519.30	519.30	519.30	519.30	519.30	519.30	519.30	519.30	519.30	519.30	519.30	519.30	519.30	519.30	
Onsite Total (lbs/month)	220.81	220.81	220.81	220.81	220.81	220.81	220.81	220.81	628.91	628.91	855.21	855.21	985.03	985.03	945.71	945.71	945.71	945.71	945.71	945.71	945.71	945.71	945.71	945.71	1,036.38	1,036.38	1,036.38	
Onsite Total (lbs/day) ^a	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	27.34	27.34	37.18	37.18	42.83	42.83	41.12	41.12	41.12	41.12	41.12	41.12	41.12	41.12	41.12	41.12	45.06	45.06	45.06	
Onsite Total (tons/year)	5.81																											

Construction Equipment VOC Emissions from Units 3 & 4 Demolition

Onsite Equipment	VOC Emissions (lbs/month)																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Water Truck	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	
Cranes	13.06	13.06	13.06	13.06	13.06	13.06	13.06	13.06	26.12	26.12	39.18	39.18	39.18	39.18	26.12	26.12	26.12	26.12	26.12	26.12	26.12	26.12	26.12	26.12	39.18	39.18	39.18	
Rubber Tired Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	19.52	19.52	19.52	
Air Compressor	11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	22.60	
Forklift	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.95	37.95	56.93	56.93	75.91	75.91	75.91	75.91	75.91	75.91	75.91	75.91	75.91	75.91	75.91	75.91	75.91	75.91	75.91	
Onsite Total (lbs/month)	53.42	53.42	53.42	53.42	53.42	53.42	53.42	53.42	125.49	125.49	165.28	165.28	184.25	184.25	171.19	171.19	171.19	171.19	171.19	171.19	171.19	171.19	171.19	171.19	194.01	194.01	194.01	
Onsite Total (lbs/day) ^a	2.32	2.32	2.32	2.32	2.32	2.32	2.32	2.32	5.46	5.46	7.19	7.19	8.01	8.01	7.44	7.44	7.44	7.44	7.44	7.44	7.44	7.44	7.44	7.44	8.44	8.44	8.44	
Onsite Total (tons/year)	1.06																											

Construction Equipment NOx Emissions from Units 3 & 4 Demolition

Onsite Equipment	NOx Emissions (lbs/month)																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Water Truck	143.87	143.87	143.87	143.87	143.87	143.87	143.87	143.87	143.87	143.87	143.87	143.87	126.74	126.74	126.74	126.74	126.74	126.74	126.74	126.74	126.74	126.74	126.74	126.74	111.49	111.49	111.49	
Cranes	112.55	112.55	112.55	112.55	112.55	112.55	112.55	112.55	225.10	225.10	337.64	337.64	306.16	306.16	204.11	204.11	204.11	204.11	204.11	204.11	204.11	204.11	204.11	204.11	276.36	276.36	276.36	
Rubber Tired Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	61.02	61.02	61.02	61.02	56.36	56.36	56.36	56.36	56.36	56.36	56.36	56.36	56.36	56.36	56.36	56.36	104.16	104.16	104.16	
Air Compressor	72.75	72.75	72.75	72.75	72.75	72.75	72.75	72.75	145.49	145.49	145.49	145.49	134.01	134.01	134.01	134.01	134.01	134.01	134.01	134.01	134.01	134.01	134.01	134.01	123.02	123.02	123.02	
Forklift	52.05	52.05	52.05	52.05	52.05	52.05	52.05	52.05	52.05	104.10	104.10	104.10	91.66	91.66	91.66	91.66	91.66	91.66	91.66	91.66	91.66	91.66	91.66	91.66	79.49	79.49	79.49	
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	256.34	256.34	384.50	384.50	451.73	451.73	451.73	451.73	451.73	451.73	451.73	451.73	451.73	451.73	451.73	451.73	396.04	396.04	396.04	
Onsite Total (lbs/month)	381.21	381.21	381.21	381.21	381.21	381.21	381.21	381.21	883.86	883.86	1,176.62	1,176.62	1,166.67	1,166.67	1,064.62	1,064.62	1,064.62	1,064.62	1,064.62	1,064.62	1,064.62	1,064.62	1,064.62	1,090.55	1,090.55	1,090.55		
Onsite Total (lbs/day) ^a	16.57	16.57	16.57	16.57	16.57	16.57	16.57	16.57	38.43	38.43	51.16	51.16	50.72	50.72	46.29	46.29	46.29	46.29	46.29	46.29	46.29	46.29	46.29	46.29	47.42	47.42	47.42	
Onsite Total (tons/year)	6.60																											

Construction Equipment SOx Emissions from Units 3 & 4 Demolition

Onsite Equipment	SOx Emissions (lbs/month)																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Water Truck	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	
Cranes	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.35	0.35	0.53	0.53	0.53	0.53	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.53	0.53	0.53	
Rubber Tired Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.16	0.16	0.16	
Air Compressor	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	
Forklift	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.46	0.69	0.69	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	
Onsite Total (lbs/month)	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	1.45	1.45	1.97	1.97	2.20	2.20	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.28	2.28	2.28	
Onsite Total (lbs/day) ^a	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.06	0.06	0.09	0.09	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	
Onsite Total (tons/year)	0.01																											

Construction Equipment PM₁₀ Emissions from Units 3 & 4 Demolition

Onsite Equipment	PM ₁₀ Emissions (lbs/month)																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Water Truck																												

Table 5.1A.49 Onsite Construction Equipment Exhaust Emissions

Construction Equipment PM_{2.5} Emissions from Units 3 & 4 Demolition

Onsite Equipment	PM _{2.5} Emissions (lbs/month)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Water Truck	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12	4.51	4.51	4.51	4.51	4.51	4.51	4.51	4.51	4.51	4.51	4.51	4.51	4.02	4.02	4.02
Cranes	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	7.72	7.72	11.58	11.58	10.44	10.44	6.96	6.96	6.96	6.96	6.96	6.96	6.96	6.96	6.96	6.96	9.46	9.46	9.46
Rubber Tired Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.89	4.89	4.89	4.89	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	7.76	7.76	7.76
Air Compressor	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	12.06	12.06	12.06	12.06	10.63	10.63	10.63	10.63	10.63	10.63	10.63	10.63	10.63	10.63	10.63	10.63	9.23	9.23	9.23
Forklift	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	5.64	5.64	4.93	4.93	4.93	4.93	4.93	4.93	4.93	4.93	4.93	4.93	4.93	4.93	4.22	4.22	4.22
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.81	13.81	20.71	20.71	23.91	23.91	23.91	23.91	23.91	23.91	23.91	23.91	23.91	23.91	23.91	23.91	20.52	20.52	20.52
Onsite Total (lbs/month)	17.83	17.83	17.83	17.83	17.83	17.83	17.83	17.83	46.42	46.42	60.01	60.01	58.79	58.79	55.31	55.31	55.31	55.31	55.31	55.31	55.31	55.31	55.31	55.31	55.21	55.21	55.21
Onsite Total (lbs/day)^a	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	2.02	2.02	2.61	2.61	2.56	2.56	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Onsite Total (tons/year)	0.34																										

Construction Equipment CO₂ Emissions from Units 3 & 4 Demolition

Onsite Equipment	CO ₂ Emissions (metric tons/month)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Water Truck	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48
Cranes	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	15.51	15.51	23.26	23.26	23.26	23.26	15.51	15.51	15.51	15.51	15.51	15.51	15.51	15.51	15.51	15.51	23.26	23.26	23.26
Rubber Tired Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	6.95	6.95	6.95
Air Compressor	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08	8.08
Forklift	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.40	20.40	30.60	30.60	40.80	40.80	40.80	40.80	40.80	40.80	40.80	40.80	40.80	40.80	40.80	40.80	40.80	40.80	40.80
Onsite Total (metric tons/month)	30.76	30.76	30.76	30.76	30.76	30.76	30.76	30.76	66.43	66.43	88.87	88.87	99.07	99.07	91.32	91.32	91.32	91.32	91.32	91.32	91.32	91.32	91.32	91.32	102.55	102.55	102.55
Onsite Total (metric tons/day)^a	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	2.89	2.89	3.86	3.86	4.31	4.31	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	4.46	4.46	4.46
Onsite Total (metric tons/year)	1129.52																										

Construction Equipment N₂O Emissions from Units 3 & 4 Demolition

Onsite Equipment	N ₂ O Emissions (metric tons/month)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Water Truck	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
Cranes	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0004	0.0004	0.0006	0.0006	0.0006	0.0006	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0006	0.0006	0.0006
Rubber Tired Loader	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002
Air Compressor	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Forklift	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Excavator	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0005	0.0008	0.0008	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Onsite Total (metric tons/month)	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0017	0.0017	0.0023	0.0023	0.0025	0.0025	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0026	0.0026	0.0026
Onsite Total (metric tons/day)^a	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Onsite Total (metric tons/year)	0.0288																										

Construction Equipment CH₄ Emissions from Units 3 & 4 Demolition

Onsite Equipment	CH ₄ Emissions (metric tons/month)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Water Truck	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
Cranes	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0009	0.0009	0.0013	0.0013	0.0013	0.0013	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0013	0.0013	0.0013
Rubber Tired Loader	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0004	0.0004	0.0004
Air Compressor	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Forklift	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Excavator	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0012	0.0012	0.0017	0.0017	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
Onsite Total (metric tons/month)	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0038	0.0038	0.0050	0.0050	0.0056	0.0056	0.0052	0.0052	0.0052	0.0052	0.0052	0.0052	0.0052	0.0052	0.0052	0.0058	0.0058	0.0058	
Onsite Total (metric tons/day)^a	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	
Onsite Total (metric tons/year)	0.0642																										

Table 5.1A.51 Onsite Demolition Fugitive Dust Emissions

Demolition Activity Levels for Units 3 & 4 Demolition

Source	Monthly Activity Levels																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Debris Generated from Mechanical Dismemberment (tons)	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74	812.74

^a Debris generated from Table 5.14-3, Wastes Generated during Demolition of HBGS Units 1 & 2 or HBGS Units 3 & 4. Only materials generated from demolition that may generate fugitive dust were included. The monthly quantities were determined as follows:

Scrap Materials	16,000	lbs/week	which equals	32.00	tons/month
Scrap Metals	20,000	tons	which equals	740.74	tons/month
Concrete	0	tons	which equals	0.00	tons/month
Asphalt	80	tons	which equals	2.96	tons/month
Asbestos Waste	1,000	tons	which equals	37.04	tons/month

The above calculations are based on the following assumptions:

Demolition will last	27	months
The construction schedule allows for	4	weeks/month

Onsite Construction Vehicle Fugitive PM₁₀ Emissions from Units 3 & 4 Demolition

Vehicle Type	Fugitive PM ₁₀ Emissions (lbs/day) ^a																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Onsite Pick-up Truck	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13
Onsite Stake Truck	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13
Onsite Dump Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Onsite Total (lbs/day)	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33
Vehicle Type	Fugitive PM ₁₀ Emissions (lbs/month)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Onsite Pick-up Truck	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03
Onsite Stake Truck	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03	49.03
Onsite Dump Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51
Onsite Total (lbs/month)	98.05	98.05	98.05	98.05	98.05	98.05	98.05	98.05	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57	122.57
Onsite Total (tons/year)	0.74																										

Notes:

^a Emissions based on highest (controlled) unpaved road emission factor for PM₁₀.

Onsite Construction Vehicle Fugitive PM_{2.5} Emissions from Units 3 & 4 Demolition

Vehicle Type	Fugitive PM _{2.5} Emissions (lbs/day) ^a																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Onsite Pick-up Truck	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Onsite Stake Truck	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Onsite Dump Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Onsite Total (lbs/day)	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
Vehicle Type	Fugitive PM _{2.5} Emissions (lbs/month)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Onsite Pick-up Truck	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90
Onsite Stake Truck	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90
Onsite Dump Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45
Onsite Total (lbs/month)	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26
Onsite Total (tons/year)	0.07																										

Notes:

^a Emissions based on the highest (controlled) unpaved road emission factor for PM_{2.5}.

Onsite Demolition Fugitive PM₁₀ Emissions from Units 3 & 4 Demolition

Demolition Activity	Fugitive PM ₁₀ Emissions (lbs/day) ^a																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Dismemberment	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59	8.59
Debris Loading ^b	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Onsite Total (lbs/day)	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31	9.31
Demolition Activity	Fugitive PM ₁₀ Emissions (lbs/month)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Dismemberment	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54	197.54
Debris Loading ^b	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
Onsite Total (lbs/month)	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04	214.04
Onsite Total (tons/year)	1.28																										

Notes:

^a Work days per month are as follows, per 'Manpower_Schedule_Huntington_Beach 03.13.12.xls': 23

^b Assume that all debris generated per month from dismemberment is loaded in the same month that it is generated.

Table 5.1A.51 Onsite Demolition Fugitive Dust Emissions

Onsite Demolition Fugitive PM_{2.5} Emissions from Units 3 & 4 Demolition

Demolition Activity	Fugitive PM _{2.5} Emissions (lbs/day) ^a																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Dismemberment	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Debris Loading ^b	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Onsite Total (lbs/day)	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
Demolition Activity	Fugitive PM _{2.5} Emissions (lbs/month) ^a																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Dismemberment	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91	29.91
Debris Loading ^b	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Onsite Total (lbs/month)	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41
Onsite Total (tons/year)	0.19																										

Notes:
^a Work days per month are as follows, per 'Manpower_Schedule_Huntington_Beach 03.13.12.xls': 23
^b Assume that all debris generated per month from dismemberment is loaded in the same month that it is generated.

Onsite Construction Vehicle Activity for Units 3 & 4 Demolition

Vehicle Type	Miles/Day ^a	Working Days per Month ^b
Onsite Pick-up Truck	2	23
Onsite Stake Truck	2	23
Onsite Dump Truck	1	23

Notes:
^a Estimated based on the dimensions of the project site.
^b Per 'Manpower_Schedule_Huntington_Beach 03.13.12.xls'.

Fugitive Dust Emission Factors for Unpaved Roads

Parameter	PM ₁₀	PM _{2.5}
Mean Vehicle Weight ^a	16.5	16.5
Silt Content ^b	8.5	8.5
k ^c	1.5	0.15
a ^c	0.9	0.9
b ^c	0.45	0.45
Emission Factor (Uncontrolled, lbs/mile)^d	2.37	0.24
Reduction from Watering Twice/Day^e	55%	55%
Emission Factor (Controlled, lbs/mile)	1.07	0.11

Notes:
^a Mean vehicle weight assumes that medium/heavy duty trucks weigh 16.5 tons.
^b Silt content taken from Table 13.2.2-1 of Section 13.2.2 of AP-42 for a Construction Site, Scraper Route; this value is consistent with the CalEEMod defaults.
^c k, a, and b taken from Table 13.2.2-2 of Section 13.2.2 of AP-42 for industrial roads.
^d Emission factor calculated using the following equation from Section 13.2.2 of AP-42: Emission Factor (lbs/mile) = {k (lbs/mile) x [Silt Content (%) / 12]^a x [Mean Vehicle Weight (tons) / 3]^b
^e Control efficiency taken from Table XI-D of the SCAQMD CEQA Handbook for Travel Over Unpaved Roads; this value is consistent with the CalEEMod defaults.

Fugitive Dust Emission Factors for Dismemberment

Parameter	PM ₁₀	PM _{2.5}
k ^a	0.35	0.053
U ^b	2.2	2.2
M ^c	2%	2%
Emission Factor (lbs/ton)^d	0.243	0.037

Notes:
^a k, the particle size multiplier, taken from Section 13.2.4.3 of AP-42 per Section 4.4 of Appendix A of the CalEEMod User's Guide.
^b U, the mean wind speed, taken as the CalEEMod default for the South Coast Air Basin.
^c M, the material moisture content, taken from Section 4.4 of Appendix A of the CalEEMod User's Guide.
^d Emission factor calculated using the following equation from Section 13.2.4.3 of AP-42 per Section 4.4 of Appendix A of the CalEEMod User's Guide:
 Emission Factor (lbs/ton) = k x 0.0032 x [U (m/s) / 5]^{1.3} x [M (%) / 2]^{1.4}

Fugitive Dust Emission Factors for Debris Loading

Parameter	PM ₁₀	PM _{2.5}
k ^a	0.35	0.053
EF _{L-TSP} ^b	0.058	0.058
Emission Factor (lbs/ton)^c	0.020	0.003

Notes:
^a k taken from Section 13.2.4.3 of AP-42 per Section 4.4 of Appendix A of the CalEEMod User's Guide.
^b EF_{L-TSP} taken from Section 4.4 of Appendix A of the CalEEMod User's Guide.
^c Emission factor calculated using the following equation from Section 4.4 of Appendix A of the CalEEMod User's Guide:
 Emission Factor (lbs/ton) = k x EF_{L-TSP} (lbs/ton)

Table 5.1A.52 Offsite Motor Vehicle Exhaust and Fugitive Dust Emissions

Offsite Vehicle NOx Emissions from Units 3 & 4 Demolition

Vehicle Type	NOx Emissions (lbs/day)																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Offsite Delivery Trucks	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	
Material Hauling Trucks	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	
Waste Hauling Trucks	2.02	2.69	2.69	3.37	3.37	3.37	4.04	4.04	5.39	5.39	7.41	7.41	7.19	7.79	7.79	7.79	7.79	7.79	7.79	7.79	5.39	4.79	3.59	2.99	2.99	6.96	6.96	
Construction Worker Commute	0.08	0.08	0.18	0.26	0.29	0.32	0.31	0.31	0.31	0.31	0.31	0.31	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.15	0.14	0.09	0.26	0.26		
Offsite Total (lbs/day)	2.77	3.44	3.54	4.29	4.09	4.13	4.79	4.79	6.14	6.14	8.16	8.16	7.86	8.46	8.46	8.46	8.46	8.46	8.46	8.46	7.25	7.04	5.73	5.12	3.48	7.56	7.56	
Vehicle Type	NOx Emissions (lbs/month)																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Offsite Delivery Trucks	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	0.00	3.84	3.84	3.84	
Material Hauling Trucks	10.32	10.32	10.32	10.32	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	32.14	41.32	41.32	9.18	4.10	4.10	4.10	
Waste Hauling Trucks	46.46	61.94	61.94	77.43	77.43	77.43	92.91	92.91	123.88	123.88	170.34	170.34	165.29	179.06	179.06	179.06	179.06	179.06	179.06	179.06	123.97	110.19	82.64	68.87	68.87	160.00	160.00	
Construction Worker Commute	1.94	1.94	4.18	5.97	6.57	7.46	7.16	7.16	7.16	7.16	7.16	7.16	6.55	6.55	6.55	6.55	6.55	6.55	6.55	6.55	6.27	6.14	3.55	3.14	2.05	5.97	5.97	
Offsite Total (lbs/month)	63.62	79.11	81.35	98.62	94.06	94.95	110.14	110.14	141.11	141.11	187.57	187.57	180.75	194.53	194.53	194.53	194.53	194.53	194.53	194.53	166.70	161.98	131.84	117.65	80.10	173.91	173.91	
Offsite Total (tons/year)	1.096																											

Offsite Vehicle PM₁₀ Emissions from Units 3 & 4 Demolition

Vehicle Type	PM ₁₀ Emissions (lbs/day) ^a																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Offsite Delivery Trucks	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.02	0.02	0.02	
Material Hauling Trucks	0.05	0.05	0.05	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.16	0.21	0.21	0.05	0.02	0.02	0.02	
Waste Hauling Trucks	0.21	0.28	0.28	0.35	0.35	0.35	0.43	0.43	0.57	0.57	0.78	0.78	0.83	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.62	0.55	0.41	0.34	0.87	0.87	0.87	
Construction Worker Commute	0.21	0.21	0.44	0.63	0.70	0.79	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.73	0.71	0.41	0.36	0.24	0.76	0.76	
Offsite Total (lbs/day)	0.49	0.56	0.79	1.06	1.10	1.19	1.23	1.23	1.37	1.37	1.58	1.58	1.63	1.70	1.70	1.70	1.70	1.70	1.70	1.53	1.49	1.05	0.93	0.63	1.67	1.67	1.67	
Vehicle Type	PM ₁₀ Emissions (lbs/month) ^a																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Offsite Delivery Trucks	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.00	0.41	0.41	0.41		
Material Hauling Trucks	1.09	1.09	1.09	1.09	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.53	0.53	0.53	0.53	0.53	0.53	0.53	3.69	4.75	4.75	1.05	0.51	0.51	0.51		
Waste Hauling Trucks	4.90	6.53	6.53	8.16	8.16	8.16	9.79	9.79	13.06	13.06	17.95	17.95	18.98	20.57	20.57	20.57	20.57	20.57	20.57	20.57	14.24	12.66	9.49	7.91	7.91	20.01	20.01	
Construction Worker Commute	4.74	4.74	10.21	14.59	16.05	18.23	17.51	17.51	17.51	17.51	17.51	17.51	17.52	17.52	17.52	17.52	17.52	17.52	17.52	17.52	16.79	16.42	9.49	8.39	5.47	17.52	17.52	
Offsite Total (lbs/month)	11.17	12.80	18.27	24.28	25.19	27.38	28.28	28.28	31.55	31.55	36.45	36.45	37.45	39.03	39.03	39.03	39.03	39.03	39.03	39.03	35.14	34.25	24.15	21.47	14.44	38.45	38.45	
Offsite Total (tons/year)	0.223																											

Notes:
^a PM₁₀ Emissions include emissions from exhaust and paved roads.

Offsite Vehicle PM_{2.5} Emissions from Units 3 & 4 Demolition

Vehicle Type	PM _{2.5} Emissions (lbs/day) ^a																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Offsite Delivery Trucks	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01		
Material Hauling Trucks	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.08	0.10	0.10	0.02	0.01	0.01	0.01	
Waste Hauling Trucks	0.11	0.14	0.14	0.18	0.18	0.18	0.21	0.21	0.28	0.28	0.39	0.39	0.40	0.43	0.43	0.43	0.43	0.43	0.43	0.30	0.27	0.20	0.17	0.41	0.41	0.41		
Construction Worker Commute	0.06	0.06	0.12	0.18	0.20	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.12	0.10	0.07	0.21	0.21	
Offsite Total (lbs/day)	0.20	0.23	0.30	0.39	0.39	0.42	0.45	0.45	0.52	0.52	0.62	0.62	0.63	0.66	0.66	0.66	0.66	0.66	0.66	0.59	0.57	0.42	0.38	0.25	0.64	0.64	0.64	
Vehicle Type	PM _{2.5} Emissions (lbs/month) ^a																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Offsite Delivery Trucks	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.00	0.20	0.20	0.20		
Material Hauling Trucks	0.54	0.54	0.54	0.54	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.78	2.29	2.29	0.51	0.24	0.24	0.24		
Waste Hauling Trucks	2.42	3.23	3.23	4.04	4.04	4.04	4.85	4.85	6.46	6.46	8.89	8.89	9.15	9.91	9.91	9.91	9.91	9.91	9.91	6.86	6.10	4.57	3.81	3.81	9.40	9.40		
Construction Worker Commute	1.33	1.33	2.86	4.08	4.49	5.10	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.69	4.59	2.65	2.35	1.53	4.90	4.90		
Offsite Total (lbs/month)	4.52	5.33	6.86	8.89	9.03	9.64	10.24	10.24	11.86	11.86	14.28	14.28	14.51	15.27	15.27	15.27	15.27	15.27	15.27	15.27	13.54	13.19	9.73	8.66	5.85	14.73	14.73	
Offsite Total (tons/year)	0.087																											

Notes:
^a PM_{2.5} Emissions include emissions from exhaust and paved roads.

Offsite Vehicle CO₂ Emissions from Units 3 & 4 Demolition

Vehicle Type	CO ₂ Emissions (metric tons/day)																											
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Offsite Delivery Trucks	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.00	0.03	0.03	0.03		
Material Hauling Trucks	0.07	0.07	0.07	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.23	0.30	0.30	0.07	0.03	0.03	0.03		
Waste Hauling Trucks	0.30	0.39	0.39	0.49	0.49	0.49	0.59	0.59	0.79	0.79	1.08	1.08	1.18	1.28	1.28	1.28	1.28	1.28	1.28	0.89	0.79	0.59	0.49	1.28	1.28	1.28		
Construction Worker Commute	0.09	0.09	0.19	0.28	0.31	0.35	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.32	0.31	0.18	0.16	0.10	0.33	0.33		
																												

Table 5.1A.52 Offsite Motor Vehicle Exhaust and Fugitive Dust Emissions

Offsite Vehicle N₂O Emissions from Units 3 & 4 Demolition

Vehicle Type	N ₂ O Emissions (metric tons/day)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Offsite Delivery Trucks	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007
Material Hauling Trucks	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019	0.0000019
Waste Hauling Trucks	0.0000086	0.0000115	0.0000115	0.0000144	0.0000144	0.0000144	0.0000173	0.0000173	0.0000230	0.0000230	0.0000317	0.0000317	0.0000346	0.0000374	0.0000374	0.0000374	0.0000374	0.0000374	0.0000374	0.0000374	0.0000259	0.0000230	0.0000173	0.0000144	0.0000144	0.0000374	0.0000374
Construction Worker Commute	0.0000101	0.0000101	0.0000218	0.0000311	0.0000342	0.0000389	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000373	0.0000358	0.0000350	0.0000202	0.0000179	0.0000117	0.0000373	0.0000373
Offsite Total (metric tons/day)	0.0000214	0.0000242	0.0000359	0.0000481	0.0000503	0.0000549	0.0000563	0.0000563	0.0000620	0.0000620	0.0000707	0.0000707	0.0000735	0.0000764	0.0000764	0.0000764	0.0000764	0.0000764	0.0000764	0.0000691	0.0000674	0.0000468	0.0000416	0.0000280	0.0000764	0.0000764	
Vehicle Type	N ₂ O Emissions (metric tons/month)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Offsite Delivery Trucks	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	0.0000016	
Material Hauling Trucks	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	0.0000044	
Waste Hauling Trucks	0.0000199	0.0000265	0.0000265	0.0000331	0.0000331	0.0000331	0.0000397	0.0000397	0.0000530	0.0000530	0.0000729	0.0000729	0.0000795	0.0000861	0.0000861	0.0000861	0.0000861	0.0000861	0.0000861	0.0000861	0.0000596	0.0000530	0.0000397	0.0000331	0.0000331	0.0000861	0.0000861
Construction Worker Commute	0.0000233	0.0000233	0.0000501	0.0000715	0.0000787	0.0000894	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000858	0.0000823	0.0000805	0.0000465	0.0000411	0.0000268	0.0000858	0.0000858
Offsite Total (metric tons/month)	0.0000492	0.0000558	0.0000826	0.0001107	0.0001156	0.0001264	0.0001294	0.0001294	0.0001427	0.0001427	0.0001625	0.0001625	0.0001692	0.0001758	0.0001758	0.0001758	0.0001758	0.0001758	0.0001758	0.0001590	0.0001550	0.0001077	0.0000957	0.0000644	0.0001758	0.0001758	
Offsite Total (metric tons/year)	0.00201																										

Offsite Vehicle CH₄ Emissions from Units 3 & 4 Demolition

Vehicle Type	CH ₄ Emissions (metric tons/day)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Offsite Delivery Trucks	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	0.0000007	
Material Hauling Trucks	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	0.0000020	
Waste Hauling Trucks	0.0000092	0.0000122	0.0000122	0.0000153	0.0000153	0.0000153	0.0000184	0.0000184	0.0000245	0.0000245	0.0000337	0.0000337	0.0000367	0.0000398	0.0000398	0.0000398	0.0000398	0.0000398	0.0000398	0.0000398	0.0000275	0.0000245	0.0000184	0.0000153	0.0000153	0.0000398	0.0000398
Construction Worker Commute	0.0000486	0.0000486	0.00001046	0.00001495	0.00001644	0.00001868	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001794	0.00001719	0.00001682	0.00000972	0.00000859	0.00000561	0.00001794	0.00001794
Offsite Total (metric tons/day)	0.0000605	0.0000636	0.00001197	0.00001676	0.00001815	0.00002039	0.00001995	0.00001995	0.00002056	0.00002056	0.00002148	0.00002148	0.00002179	0.00002209	0.00002209	0.00002209	0.00002209	0.00002209	0.00002209	0.00002209	0.00002073	0.00002026	0.00001254	0.00001112	0.00000734	0.00002209	0.00002209
Vehicle Type	CH ₄ Emissions (metric tons/month)																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Offsite Delivery Trucks	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	0.0000017	
Material Hauling Trucks	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	0.0000047	
Waste Hauling Trucks	0.0000211	0.0000282	0.0000282	0.0000352	0.0000352	0.0000352	0.0000422	0.0000422	0.0000563	0.0000563	0.0000774	0.0000774	0.0000845	0.0000915	0.0000915	0.0000915	0.0000915	0.0000915	0.0000915	0.0000915	0.0000633	0.0000563	0.0000422	0.0000352	0.0000352	0.0000915	0.0000915
Construction Worker Commute	0.0001117	0.0001117	0.0002406	0.0003438	0.0003782	0.0004297	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0004125	0.0003954	0.0003868	0.0002235	0.0001977	0.0001289	0.0004125	0.0004125
Offsite Total (metric tons/month)	0.0001392	0.0001463	0.0002752	0.0003854	0.0004174	0.0004690	0.0004588	0.0004588	0.0004729	0.0004729	0.0004940	0.0004940	0.0005011	0.0005081	0.0005081	0.0005081	0.0005081	0.0005081	0.0005081	0.0005081	0.0004768	0.0004659	0.0002885	0.0002557	0.0001688	0.0005081	0.0005081
Offsite Total (metric tons/year)	0.00596																										

Offsite Construction Vehicle Activity for Units 3 & 4 Demolition

Vehicle Type	Roundtrip Miles/Day ^a	Working Days per Month ^b
Offsite Delivery Trucks	14.6	23
Material Hauling Trucks	40.0	23
Waste Hauling Trucks	60.0	23
Construction Worker Commute	21.6	23

Notes:

^a Roundtrip miles/day taken as the CalEEMod defaults for the South Coast Air Basin except for Waste Hauling Trucks, which were assumed to travel directly to the the landfill for offsite waste disposal.

^b Per 'Manpower_Schedule_Huntington_Beach 03.13.12.xls'.

Table 5.1A.53 Equations Used to Calculate Criteria Pollutant and GHG Emissions

Equations Used to Calculate Emissions from Units 3 & 4 Demolition

Emission Source	Pollutant(s)	Equation	Variables
Construction Equipment Exhaust	CO, VOC, NOx, SOx, PM ₁₀ , and PM _{2.5}	$E_m = EF * N * Hp * L * H / 453.6$	E_m = Emissions (lbs/month)
			EF = Emission factor (g/bhp-hr)
			N = Number of pieces of equipment
		$E_d = E_m / D$	Hp = Average horsepower
			L = Average load factor
			H = Hours per month
		$E_i = \Sigma E_m / 2,000$	453.6 = Conversion from g to lbs
			E_d = Emissions (lbs/day)
			D = Number of construction days per month
	CO ₂	$E_m = N * FC * EF * H * 0.001$	E_i = Emissions (tons/year)
			E_m = Emissions (lbs/month)
			$2,000$ = Conversion from lbs to tons
		$E_d = E_m / D$	E_m = Emissions (metric tons/month)
			N = Number of pieces of equipment
			FC = Fuel consumption (gallons/hour)
$E_i = \Sigma E_m$	EF = Emission factor (kg/gallon)		
	H = Hours per month		
	0.001 = Conversion from kg to metric tons		
CH ₄ and N ₂ O	$E_m = N * FC * EF * H / 1,000 * 0.001$	E_d = Emissions (metric tons/day)	
		E_m = Emissions (metric tons/month)	
		D = Number of construction days per month	
	$E_d = E_m / D$	E_i = Emissions (metric tons/year)	
		E_m = Emissions (metric tons/month)	
		$E_i = \Sigma E_m$	
	Onsite and Offsite Vehicle Exhaust and Paved and Unpaved Road Fugitive PM ₁₀ and PM _{2.5}	$E_d = N * VMT * EF / 453.6$	E_m = Emissions (metric tons/month)
			N = Number of pieces of equipment
			FC = Fuel consumption (gallons/hour)
$E_m = E_d * D$		EF = Emission factor (g/gallon)	
		H = Hours per month	
		$1,000$ = Conversion from g to kg	
$E_i = \Sigma E_m$	0.001 = Conversion from kg to metric tons		
	E_d = Emissions (metric tons/day)		
	E_m = Emissions (metric tons/month)		
CO, VOC, NOx, SOx, PM ₁₀ , and PM _{2.5}	$E_d = N * VMT * EF / 453.6$	D = Number of construction days per month	
		E_i = Emissions (metric tons/year)	
		E_m = Emissions (metric tons/month)	
	$E_m = E_d * D$	E_d = Emissions (lbs/day)	
		N = Number of vehicles	
		VMT = Vehicle miles traveled per day (miles/day)	
	$E_i = \Sigma E_m / 2,000$	EF = EMFAC2007 emission factor (g/mile). Paved and unpaved road fugitive PM ₁₀ and PM _{2.5} emission factors calculated per Sections 13.2.1 and 13.2.2 of AP-42, respectively.	
		453.6 = Conversion from g to lbs	
		E_m = Emissions (lbs/month)	
	E_d = Emissions (lbs/day)		
	D = Number of construction days per month		
	E_i = Emissions (tons/year)		
	E_m = Emissions (lbs/month)		
	$2,000$ = Conversion from lbs to tons		

Table 5.1A.53 Equations Used to Calculate Criteria Pollutant and GHG Emissions

Equations Used to Calculate Emissions from Units 3 & 4 Demolition

Emission Source	Pollutant(s)	Equation	Variables	
Onsite and Offsite Vehicle Exhaust	CO ₂	$E_d = N * VMT / FE * EF * 0.001$	E_d = Emissions (metric tons/day)	
			N = Number of vehicles	
			VMT = Vehicle miles traveled per day (miles/day)	
			FE = Fuel economy (mpg)	
			EF = Emission factor (kg/gallon)	
			0.001 = Conversion from kg to metric tons	
			$E_m = E_d * D$	E_m = Emissions (metric tons/month)
				E_d = Emissions (metric tons/day)
				D = Number of construction days per month
			$E_i = \sum E_m$	E_i = Emissions (metric tons/year)
				E_m = Emissions (metric tons/month)
CH ₄ and N ₂ O		$E_d = N * VMT * EF / 1,000 * 0.001$	E_d = Emissions (metric tons/day)	
			N = Number of vehicles	
			VMT = Vehicle miles traveled per day (miles/day)	
			EF = Emission factor (g/mile)	
			1,000 = Conversion from g to kg	
			0.001 = Conversion from kg to metric tons	
		$E_m = E_d * D$	E_m = Emissions (metric tons/month)	
			E_d = Emissions (metric tons/day)	
			D = Number of construction days per month	
		$E_i = \sum E_m$	E_i = Emissions (metric tons/year)	
			E_m = Emissions (metric tons/month)	
Onsite Fugitive PM ₁₀ and PM _{2.5} from Dismemberment and Debris Loading	PM ₁₀ and PM _{2.5}	$E_d = T * EF / D$	E_d = Emissions (lbs/day)	
			T = Tons of material dismembered or loaded	
			EF = Fugitive PM ₁₀ and PM _{2.5} emission factors (lbs/ton), calculated per Section 13.2.4.3 of AP-42 for dismemberment and Section 4.4 of Appendix A of the CalEEMod User's Guide for debris loading.	
			D = Number of construction days per month	
			E_m = Emissions (lbs/month)	
			E_d = Emissions (lbs/day)	
		$E_m = E_d * D$	D = Number of construction days per month	
			E_i = Emissions (tons/year)	
			E_m = Emissions (lbs/month)	
		$E_i = \sum E_m / 2,000$	2,000 = Conversion from lbs to tons	

Table 5.1A.54 Number of Onsite Construction Equipment and Motor Vehicles

Number of Onsite Equipment for Units 3 & 4 Demolition

Onsite Equipment	Number per Month ^a																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Water Truck	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cranes ^b	1	1	1	1	1	1	1	1	2	2	3	3	3	3	2	2	2	2	2	2	2	2	2	2	3	3	3
Rubber Tired Loader	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
Air Compressor	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Forklift	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Excavator	0	0	0	0	0	0	0	0	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Notes:

^a Equipment counts taken from 'HBEP Equipment Usage 1.21.13.xls'.

^b Numbers presented for Cranes includes the equipment counts for the 75 Ton Hydraulic Crane and the 35 Ton Hydraulic Crane.

Number of Onsite Motor Vehicles for Units 3 & 4 Demolition

Vehicle Type	Number per Month ^a																										
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Onsite Pick-up Truck	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Onsite Stake Truck	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Onsite Dump Truck	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Notes:

^a Vehicle counts taken from 'HBEP Equipment Usage 1.21.13.xls'.

Table 5.1A.55 Construction Equipment Exhaust Criteria Pollutant Emission Factors

Construction Equipment Emission Factors for Units 3 & 4 Demolition

Equipment ^a	Percent Usage ^b	Hours per Month ^c	Horsepower ^d	Load Factor ^d	Emission Factors (g/bhp-hr) ^e											Fuel Consumption (gallons/hour) ^f	
					CO	VOC	NO _x 2016	NO _x 2017	NO _x 2018	SO _x	PM ₁₀ 2016	PM ₁₀ 2017	PM ₁₀ 2018	PM _{2.5} 2016	PM _{2.5} 2017		PM _{2.5} 2018
Water Truck ^g	50%	115	381	0.57	1.209	0.387	2.613	2.302	2.025	0.005	0.093	0.082	0.073	0.093	0.082	0.073	12.33
Cranes	65%	150	208	0.43	1.334	0.443	3.818	3.462	3.125	0.006	0.131	0.118	0.107	0.131	0.118	0.107	5.08
Rubber Tired Loader	55%	127	87	0.54	3.919	0.745	4.657	4.302	3.975	0.006	0.373	0.333	0.296	0.373	0.333	0.296	2.69
Air Compressor	80%	184	78	0.48	3.804	0.744	4.790	4.412	4.050	0.006	0.397	0.350	0.304	0.397	0.350	0.304	2.15
Forklift	75%	173	149	0.30	3.362	0.456	3.062	2.696	2.338	0.006	0.166	0.145	0.124	0.166	0.145	0.124	2.55
Excavator	85%	196	157	0.57	3.366	0.492	3.323	2.928	2.567	0.006	0.179	0.155	0.133	0.179	0.155	0.133	5.11

Notes:
^a Assumed all equipment is fired with diesel fuel, per Section 4.2 of Appendix A of the CalEEMod User's Guide.
^b Percent Usage assumed typical of power plant construction.
^c Hours per month calculated based on the following schedule, per 'Manpower_Schedule_Huntington_Beach 03.13.12.xls'.
 Work hours per day: 10
 Work days per month: 23
^d Construction equipment horsepower and load factor taken from Table 3.3 of Appendix D of the CalEEMod User's Guide.
^e Construction equipment emission factors taken from Table 3.4 of Appendix D of the CalEEMod User's Guide. The emission factors for the year 2016 were used for the construction equipment exhaust emission calculations for CO, VOC, and SO_x. The emission factors for year 2016, 2017 and 2018 were used for NO_x, PM₁₀, and PM_{2.5}.
^f Fuel consumption based on consumption in the OFFROAD2007 model for the SCAB in the year 2016; value estimated by dividing the reported consumption (gallons/day) by the reported activity (hours/day).
^g Horsepower, load factor, and emission factors for Off-Highway Trucks were assumed representative of Water Trucks.

Table 5.1A.56 Onsite and Offsite Motor Vehicle Criteria Pollutant Emission Factors

Vehicle Emission Factors for Units 3 & 4 Demolition

Vehicle Type	Vehicle Class ^a	Exhaust Emission Factors (g/mile) ^b											Paved Road Emission Factors (g/mile) ^c		Fuel Economy (mpg) ^b	
		CO	VOC	SO _x	NO _x 2016	NO _x 2017	NO _x 2018	PM ₁₀ 2016	PM ₁₀ 2017	PM ₁₀ 2018	PM _{2.5} 2016	PM _{2.5} 2017	PM _{2.5} 2018	PM ₁₀		PM _{2.5}
Onsite Pick-up Truck	Light-duty Truck	3.508	0.235	0.011	0.327	0.301	0.278	0.123	0.124	0.126	0.101	0.103	0.104	N/A	N/A	7.440
Onsite Stake Truck	Heavy-duty Diesel	10.786	6.276	0.037	18.687	16.645	14.934	1.007	0.843	0.709	0.889	0.738	0.614	N/A	N/A	2.621
Onsite Dump Truck	Heavy-duty Diesel	10.786	6.276	0.037	18.687	16.645	14.934	1.007	0.843	0.709	0.889	0.738	0.614	N/A	N/A	2.621
Offsite Delivery Trucks	Heavy-duty Diesel	2.249	0.453	0.017	6.621	5.842	5.193	0.297	0.270	0.248	0.235	0.211	0.190	0.300	0.075	5.749
Material Hauling Trucks	Heavy/Medium-duty Diesel	1.719	0.290	0.016	5.090	4.528	4.046	0.236	0.220	0.206	0.191	0.176	0.163	0.300	0.075	6.224
Waste Hauling Trucks	Heavy/Medium-duty Diesel	1.719	0.290	0.016	5.090	4.528	4.046	0.236	0.220	0.206	0.191	0.176	0.163	0.300	0.075	6.224
Construction Worker Commute	Light-duty Auto/Truck	1.435	0.029	0.004	0.136	0.125	0.114	0.033	0.033	0.033	0.018	0.018	0.018	0.300	0.075	27.325

Notes:

^a The vehicle classes are represented as follows:

Light-duty Truck: Assumed to be an average of LDT1, All and LDT2, All values.

Heavy-duty Diesel: Assumed to be 100% HHD DSL values, as confirmed in Section 4.5 of Appendix A of the CalEEMod User's Guide.

Heavy/Medium-duty Diesel: 50% HHD DSL and 50% MHD DSL values, per Section 4.5 of Appendix A of the CalEEMod User's Guide.

Light-duty Auto/Truck: 50% LDA, All; 25% LDT1, All; and 25% LDT2, All values, per Section 4.5 of Appendix A of the CalEEMod User's Guide.

^b Exhaust emission factors and fuel economy from EMFAC2007 for the South Coast Air Basin, calendar year 2016 for CO, VOC, and SO_x. Calendar year 2016, 2017 and 2018 were used for NO_x, PM₁₀, and PM_{2.5}. A speed of 5 mph was assumed for onsite vehicles; a speed of 40 mph was assumed for offsite vehicles and worker commutes, which is consistent with the CalEEMod defaults. An average temperature of 68°F and humidity of 55% were used per Table B-1 of CT-EMFAC: A Computer Model to Estimate Transportation Project Emissions.

^c Paved road emission factors calculated using CalEEMod methodology, as described below.

Derivation of Paved Road Emission Factors

Vehicles on Paved Roads

Parameter	PM ₁₀	PM _{2.5}
Average Weight ^a	2.4	2.4
k ^b	1.0	0.25
sL ^a	0.1	0.1
Emission Factor (g/mile) ^c	0.300	0.075

Notes:

^a Average Weight and sL taken as the default value from CalEEMod.

^b k taken from Table 13.2.1-1 of Section 13.2.1 of AP-42.

^c Emission factor calculated using Equation 1 from Section 13.2.1 of AP-42:

$$\text{Emission Factor (g/mile)} = k \text{ (g/mile)} \times [\text{sL (g/m}^2\text{)}]^{0.91} \times [\text{Average Weight (tons)}]^{1.02}$$

Table 5.1A.57 Onsite and Offsite Greenhouse Gas Emission Factors

Greenhouse Gas Emission Factors for Units 3 & 4 Demolition

Fuel / Category Type	Emission Factor	Emission Factor Units	Emission Factor Source
CO₂ Emission Factors			
Gasoline	8.78	kg CO ₂ /gallon	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.1, May 2008 as updated through January 2012.
Diesel	10.21	kg CO ₂ /gallon	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.1, May 2008 as updated through January 2012.
N₂O Emission Factors			
Gasoline Passenger Car Model Year 2009 ^a	0.0036	g N ₂ O/mile	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.5, May 2008 as updated through January 2012.
Gasoline Light-duty Truck Model Year 2009 ^a	0.0066	g N ₂ O/mile	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.5, May 2008 as updated through January 2012.
Diesel Heavy-duty Truck Model Year 1960 - 2009 ^a	0.0048	g N ₂ O/mile	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.5, May 2008 as updated through January 2012.
Diesel Off-road Vehicle	0.26	g N ₂ O/gallon	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.7, May 2008 as updated through January 2012.
CH₄ Emission Factors			
Gasoline Passenger Car Model Year 2009 ^a	0.0173	g CH ₄ /mile	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.5, May 2008 as updated through January 2012.
Gasoline Light-duty Truck Model Year 2009 ^a	0.0163	g CH ₄ /mile	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.5, May 2008 as updated through January 2012.
Diesel Heavy-duty Truck Model Year 1960 - 2009 ^a	0.0051	g CH ₄ /mile	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.5, May 2008 as updated through January 2012.
Diesel Off-road Vehicle	0.58	g CH ₄ /gallon	The Climate Registry General Reporting Protocol, Version 1.1, Table 13.7, May 2008 as updated through January 2012.

Notes:

^a Model Year 2009 was the most recent year of emission factors available. As a result, it was assumed representative of vehicles used for this project.

Table 5.1A.58 Onsite Construction Exhaust and Fugitive Emissions Summary

Construction Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35			
Peaker and Tank Area and Stack 3&4 Demolition																																						
Total (lb/month)	642.06	642.06	640.80	811.24	868.31	868.31	868.31	868.31	998.25	957.75	957.75	963.80	1,098.33	1,098.33	1,098.33																							
Total (lb/day)	27.92	27.92	27.86	35.27	37.75	37.75	37.75	37.75	43.40	41.64	41.64	41.64	47.75	47.75	47.75																							
Units 3 & 4 Demolition																																						
Total (lb/month)										222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26	222.26		
Total (lb/day)										9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66	9.66		
Block 1 Construction																																						
Total (lb/month)																																						
Total (lb/day)																																						
Block 2 Construction																																						
Total (lb/month)																																						
Total (lb/day)																																						
Units 1 & 2 Demolition																																						
Total (lb/month)																																						
Total (lb/day)																																						
Bldgs. 33 & 34 Construction																																						
Total (lb/month)																																						
Total (lb/day)																																						
Total Onsite CO Emissions (Construction Equipment and Vehicles)																																						
Pounds per Month	642.06	642.06	640.80	811.24	868.31	868.31	868.31	868.31	998.25	1,180.01	1,180.01	1,188.06	1,320.59	1,320.59	1,320.59	1,514.49	1,514.49	1,794.67	1,863.32	1,678.08	1,461.14	1,669.07	1,669.07	1,669.07	1,669.07	1,628.65	1,628.65	1,667.98	1,538.15	1,498.83	1,498.83	1,498.83	1,498.83	1,510.85	1,510.85			
Pounds per Day	27.92	27.92	27.86	35.27	37.75	37.75	37.75	37.75	43.40	51.30	51.30	51.57	57.42	57.42	57.42	65.85	65.85	77.59	81.01	72.96	63.53	72.57	72.57	72.57	72.57	70.81	70.81	72.52	66.88	65.17	65.17	65.17	65.17	65.69	65.69			
Yearly Maximums	10,754	11,432	12,111	12,791	13,494	14,140	15,056	16,051	16,861	17,324	17,813	18,302	18,785	19,134	19,442	19,750	19,903	19,927	19,641	19,277	19,097	19,135	18,977	18,819	19,015	18,934	18,894	18,529	18,120	17,619	16,974	16,327	15,870	15,451	14,610			
Maximum Pounds per Day	81.11																																					
Maximum Pounds per Hour	8.11																																					
Maximum Pounds per Month	1,869.47																																					
Month with Maximum	36																																					
Maximum Pounds per Year	19,927																																					
Maximum Average Pounds per Hour	2.27																																					
Year with Maximum	Months 18 - 29																																					
Tons per Year	3.96																																					

Construction Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35				
Peaker and Tank Area and Stack 3&4 Demolition																																							
Total (lb/month)	133.40	133.40	144.82	179.14	187.42	187.42	187.42	187.42	207.84	194.14	194.14	198.92	222.77	222.77	222.77																								
Total (lb/day)	5.60	5.60	6.30	7.79	8.15	8.15	8.15	8.15	9.04	8.44	8.44	8.65	9.69	9.69	9.69																								
Units 3 & 4 Demolition																																							
Total (lb/month)										54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08	54.08		
Total (lb/day)										2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35		
Block 1 Construction																																							
Total (lb/month)																																							
Total (lb/day)																																							
Block 2 Construction																																							
Total (lb/month)																																							
Total (lb/day)																																							
Units 1 & 2 Demolition																																							
Total (lb/month)																																							
Total (lb/day)																																							
Bldgs. 33 & 34 Construction																																							
Total (lb/month)																																							
Total (lb/day)																																							
Total Onsite VOC Emissions (Construction Equipment and Vehicles)																																							
Pounds per Month	133.40	133.40	144.82	179.14	187.42	187.42	187.42	187.42	207.84	248.22	248.22	253.00	276.85	276.85	276.85	290.00	290.00	332.92	359.03	327.79	289.10	333.88	333.88	333.88	333.88	320.18	320.18	333.24	314.26	301.21	301.21	301.21	301.21	297.91	297.91				
Pounds per Day	5.60	5.60	6.30	7.79	8.15	8.15	8.15	8.15	9.04	10.79	10.79	11.00	12.04	12.04	12.04	12.61	12.61	14.47	15.61	14.25	12.57	14.52	14.52	14.52	14.52	13.92	13.92	14.49	13.66	13.10	13.10	13.10	13.10	12.85	12.85				
Yearly Maximums	2,298	2,441	2,585	2,717	2,828	2,930	3,076	3,247	3,388	3,469	3,554	3,640	3,721	3,778	3,821	3,865	3,908	3,932	3,901	3,843	3,816	3,828	3,792	3,756	3,783	3,727	3,684	3,586	3,473	3,345	3,214	3,083	2,985	2,899	2,730				
Maximum Pounds per Day	15.69																																						
Maximum Pounds per Hour	1.57																																						
Maximum Pounds per Month	350.92																																						
Month with Maximum	36																																						
Maximum Pounds per Year	3,932																																						
Maximum Average Pounds per Hour	0.45																																						
Year with Maximum	Months 18 - 29																																						
Tons per Year	1.97																																						

Construction Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Peaker and Tank Area and Stack 3&4 Demolition																																			
Total (lb/month)	894.53	894.53	1,018.01	1,286.40	1,345.15	1,345.15	1,345.15	1,345.15	1,489.83	1,614.79	1,614.79	1,643.07	1,801.61	1,801.61	1,801.61	1,825.09	1,825.09	2,150.42	2,375.51	2,282.98	2,037.56	2,144.08	2,144.08	2,144.08	2,144.08	2,040.34	2,040.34	2,142.39	2,029.46	1,927.41	1,927.41	1,927.41	1,927.41	1,882.61	1,882.61
Total (lb/day)	38.89	38.89	44.26	55.93	58.48	58.48	58.48	58.48	64.78	70.21	70.21	71.44	78.33	78.33	78.33	79.35	79.35	93.50	103.28	99.26	88.59	93.22	93.22	93.22	93.22										

Table 5.1A.58 Onsite Construction Exhaust and Fugitive Emissions Summary

Onsite SOx Emissions		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35		
Construction Step																																						
Peaker and Tank Area and Stack 3&4 Demolition																																						
Total (lbs/month)		1.22	1.22	1.43	1.84	1.84	1.94	1.84	1.94	2.18	2.00	2.00	1.99	2.23	2.23	2.23																						
Total (lbs/day)		0.05	0.05	0.06	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10																						
Units 3 & 4 Demolition																																						
Total (lbs/month)										0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	1.46	1.46	1.97	1.97	2.20	2.20	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.28	2.28		
Total (lbs/day)										0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.06	0.06	0.09	0.09	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10		
Block 1 Construction																																						
Total (lbs/month)																	2.34	2.34	2.14	2.49	1.77	1.41	1.76	1.76	1.94	1.94	1.76	1.76	1.93	1.70	1.52	1.52	1.52	1.52	1.17	1.17		
Total (lbs/day)																	0.10	0.10	0.09	0.11	0.08	0.06	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.05	0.05			
Block 2 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Units 1 & 2 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Bldgs. 33 & 34 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Total Onsite SOx Emissions (Construction Equipment and Vehicles)																																						
Pounds per Month		1.22	1.22	1.43	1.84	1.84	1.94	1.84	1.94	2.18	2.00	2.00	1.99	2.23	2.23	2.23	2.99	2.99	3.60	3.95	3.74	3.38	3.96	3.96	3.96	3.96	3.96	3.78	3.78	3.96	3.73	3.55	3.55	3.55	3.45	3.45		
Pounds per Day		0.05	0.05	0.06	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.13	0.13	0.15	0.16	0.17	0.16	0.15	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.17	0.15	0.15	0.15	0.15	0.15		
Yearly Maximums		24	25	27	28	30	31	32	34	36	37	39	40	41	42	43	44	45	46	45	45	45	45	45	44	45	44	43	42	41	40	38	37	36	35	33		
Maximum Pounds per Day		0.18																																				
Maximum Pounds per Hour		0.02																																				
Maximum Pounds per Month		4.23																																				
Month with Maximum		36																																				
Maximum Pounds per Year		46																																				
Maximum Average Pounds per Hour		0.01																																				
Year with Maximum		Months 18 - 29																																				
Tons per Year		0.02																																				
Onsite Exhaust PM ₁₀ Emissions																																						
Construction Step																																						
Peaker and Tank Area and Stack 3&4 Demolition																																						
Total (lbs/month)		57.43	57.43	59.12	71.26	74.46	74.46	74.46	74.46	82.32	69.47	69.47	73.22	81.96	81.96	81.96																						
Total (lbs/day)		2.50	2.50	2.57	3.10	3.24	3.24	3.24	3.24	3.58	3.02	3.02	3.18	3.56	3.56	3.56																						
Units 3 & 4 Demolition																																						
Total (lbs/month)										17.95	17.95	17.95	17.95	17.95	17.95	17.95	17.95	17.95	46.58	46.58	60.17	60.17	58.93	58.93	55.45	55.45	55.45	55.45	55.45	55.45	55.45	55.45	55.45	55.45	55.45	55.33	55.33	
Total (lbs/day)										0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	2.03	2.03	2.62	2.62	2.56	2.56	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	
Block 1 Construction																																						
Total (lbs/month)																	98.69	98.69	84.01	91.73	62.56	45.87	47.30	47.30	50.77	50.77	47.21	47.21	50.69	44.71	41.23	41.23	41.23	41.23	30.10	30.10		
Total (lbs/day)																	4.29	4.29	3.65	3.99	2.72	1.99	2.06	2.06	2.21	2.21	2.05	2.05	2.20	1.94	1.79	1.79	1.79	1.79	1.31	1.31		
Block 2 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Units 1 & 2 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Bldgs. 33 & 34 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Total Onsite Exhaust PM ₁₀ Emissions (Construction Equipment and Vehicles)																																						
Pounds per Month		57.43	57.43	59.12	71.26	74.46	74.46	74.46	74.46	82.32	67.41	67.41	71.17	89.91	89.91	89.91	116.64	116.64	130.59	138.32	122.74	106.04	106.22	106.22	106.22	106.22	102.66	102.66	106.14	100.16	96.68	96.68	96.68	96.68	85.43	85.43		
Pounds per Day		2.50	2.50	2.57	3.10	3.24	3.24	3.24	3.24	3.58	3.00	3.00	3.06	4.34	4.34	4.34	5.07	5.07	5.68	6.01	5.34	4.61	4.62	4.62	4.62	4.62	4.46	4.46	4.61	4.35	4.20	4.20	4.20	4.20	3.71	3.71		
Yearly Maximums		891	934	976	1,017	1,063	1,105	1,161	1,225	1,273	1,297	1,315	1,334	1,349	1,356	1,358	1,361	1,351	1,334	1,300	1,259	1,233	1,223	1,202	1,182	1,183	1,176	1,170	1,141	1,109	1,070	1,026	982	949	920	871		
Maximum Pounds per Day		6.01																																				
Maximum Pounds per Hour		0.60																																				
Maximum Pounds per Month		138.32																																				
Month with Maximum		19																																				
Maximum Pounds per Year		1,361																																				
Maximum Average Pounds per Hour		0.16																																				
Year with Maximum		Months 18 - 27																																				
Tons per Year		0.66																																				
Onsite Fugitive PM ₁₀ Emissions																																						
Construction Step																																						
Peaker and Tank Area and Stack 3&4 Demolition																																						
Total (lbs/month)		280.73	280.73	329.76	329.76	329.76	329.76	329.76	329.76	329.76	329.76	329.76	280.73	280.73	280.73	280.73																						
Total (lbs/day)		12.21	12.21	14.34	14.34	14.34	14.34	14.34	14.34	14.34	14.34	14.34	12.21	12.21	12.21	12.21																						
Units 3 & 4 Demolition																																						
Total (lbs/month)										312.09	312.09	312.09	312.09	312.09	312.09	312.09	312.09	312.09	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	336.61	
Total (lbs/day)										13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64	14.64		
Block 1 Construction																																						
Total (lbs/month)																	1,491.90	1,491.90	869.22	869.22	867.81	245.14	220.62	220.62	220.62	220.62	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60		
Total (lbs/day)																	64.87	64.87	37.79	37.79	37.79	10.66	9.59	9.59	9.59	9.59	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46		
Block 2 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Units 1 & 2 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Bldgs. 33 & 34 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Total Onsite Fugitive PM ₁₀ Emissions (Dismemberment, Debris Loading, Grading, Bulldozing, and Onsite Construction Vehicles)																																						
Pounds per Month		280.73	280.73	329.76	329.76	329.76	329.76	329.76	329.76	329.76	329.76	329.76	641.86	641.86	592.83	592.83	592.83	592.83	1,803.99	1,803.99	1,205.83	1,205.83	1,204.42	581.75	557.23	557.23	557.23	557.23	557.23	557.23	557.23	557.23	557.23	557.23	557.23	557.23		
Pounds per Day		12.21	12.21	14.34	14.34	14.34	14.34	14.34	14.34	14.34	14.34	14.34	27.91	27.91	25.78	25.78	25.78	25.78	78.43	78.43	52.43	52.37	52.37	25.29	24.23	24.23	24.23	24.23										

Table 5.1A.58 Onsite Construction Exhaust and Fugitive Emissions Summary

Construction Step	CO Emissions by Month																																						
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70				
Peaker and Tank Area and Stack 3&4 Demolition	Total (lb/month)																																						
Units 3 & 4 Demolition	Total (lb/day)																																						
Block 1 Construction	Total (lb/month)																																						
Block 2 Construction	Total (lb/month)																																						
Units 1 & 2 Demolition	Total (lb/month)																																						
Bldgs. 33 & 34 Construction	Total (lb/month)																																						
Total Onsite CO Emissions (Construction Equipment and Vehicles)																																							
Pounds per Month	1,869.47	1,588.30	1,588.30	1,253.44	1,259.53	1,037.24	853.13	852.68	1,041.78	1,079.43	669.38	668.47	743.76	706.11	538.80	538.80	538.80	538.80	463.61	349.45	298.70	298.70	298.70	298.70	298.70	298.70	222.96	411.07	411.07	0.00	0.00	0.00	652.25	652.25	839.00	839.00			
Pounds per Day	81.11	69.06	69.06	54.93	54.76	45.10	37.09	37.07	45.29	46.93	29.10	29.06	32.34	30.70	23.43	23.43	23.43	23.43	20.15	15.19	12.99	12.99	12.99	12.99	12.99	12.99	9.69	17.87	17.87	0.00	0.00	0.00	28.36	28.36	36.48	36.48			
Yearly Maximums	13,767	12,645	11,763	10,714	9,989	9,268	8,770	8,380	7,877	7,134	6,353	5,983	5,613	5,168	4,685	4,557	4,429	3,890	3,352	2,888	3,191	3,544	4,085	4,625	5,295	5,965	6,674	7,195	7,716	8,648	9,688	11,041	11,743	12,480	12,975				
Maximum Pounds per Day																																							
Maximum Pounds per Hour																																							
Maximum Pounds per Month																																							
Month with Maximum																																							
Maximum Pounds per Year																																							
Maximum Average Pounds per Hour																																							
Year with Maximum																																							
Tons per Year																																							

Construction Step	VOC Emissions by Month																																							
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70					
Peaker and Tank Area and Stack 3&4 Demolition	Total (lb/month)																																							
Units 3 & 4 Demolition	Total (lb/day)																																							
Block 1 Construction	Total (lb/month)																																							
Block 2 Construction	Total (lb/month)																																							
Units 1 & 2 Demolition	Total (lb/month)																																							
Bldgs. 33 & 34 Construction	Total (lb/month)																																							
Total Onsite VOC Emissions (Construction Equipment and Vehicles)																																								
Pounds per Month	360.92	277.25	277.25	222.73	219.76	186.85	179.24	169.98	203.27	215.00	128.94	128.42	161.88	149.15	112.34	112.34	112.34	112.34	88.87	72.98	64.65	64.65	64.65	64.65	64.65	64.65	40.93	69.74	69.74	0.00	0.00	0.00	104.30	104.30	123.73	123.73				
Pounds per Day	15.69	12.05	12.05	9.69	9.55	8.12	7.40	7.39	8.84	9.35	5.61	5.58	6.69	6.09	4.88	4.88	4.88	4.88	3.86	3.17	2.81	2.81	2.81	2.81	2.81	2.81	1.78	3.03	3.03	0.00	0.00	0.00	4.53	4.53	5.38	5.38				
Yearly Maximums	2,561	2,352	2,214	2,050	1,939	1,832	1,757	1,676	1,579	1,440	1,290	1,226	1,162	1,075	975	933	890	778	666	577	608	648	707	766	839	911	997	1,055	1,112	1,239	1,379	1,562	1,640	1,728	1,789					
Maximum Pounds per Day																																								
Maximum Pounds per Hour																																								
Maximum Pounds per Month																																								
Month with Maximum																																								
Maximum Pounds per Year																																								
Maximum Average Pounds per Hour																																								
Year with Maximum																																								
Tons per Year																																								

Construction Step	NOx Emissions by Month																																							
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70					
Peaker and Tank Area and Stack 3&4 Demolition	Total (lb/month)																																							
Units 3 & 4 Demolition	Total (lb/day)																																							
Block 1 Construction	Total (lb/month)																																							
Block 2 Construction	Total (lb/month)																																							
Units 1 & 2 Demolition	Total (lb/month)																																							
Bldgs. 33 & 34 Construction	Total (lb/month)																																							
Total Onsite NOx Emissions (Construction Equipment and Vehicles)																																								
Pounds per Month	2,086.42	1,706.30	1,706.30	1,361.96	1,361.20	1,144.21	1,089.59	1,088.83	1,278.36	1,370.48	783.13	781.76	947.25	864.50	695.29	695.29	695.29	695.29	529.80	438.73	390.56	390.56	348.76	348.76	348.76	200.33	356.05	356.05	0.00	0.00	0.00	638.75	638.75	744.56	658.30					
Pounds per Day	90.71	74.19	74.19	59.22	59.18	49.75	47.37	47.34	55.58	59.59	34.05	33.99	41.18	37.59	30.23	30.23	30.23	30.23	23.03	19.08	16.98	16.98	15.16	15.16	15.16	8.71	15.48	15.48	0.00	0.00	0.00	27.77	27.77	32.37	28.62					
Yearly Maximums	15,759	14,619	13,778	12,767	12,100	11,434	10,985	10,425	9,775	8,887	7,807	7,473	7,040	6,442	5,777	5,438	5,099	4,404	3,708	3,179	3,379	3,627	3,981	4,290	4,666	5,041	5,499	5,802	6,104	6,763	7,511	8,513	8,876	9,305	9,581					
Maximum Pounds per Day																																								
Maximum Pounds per Hour																																								
Maximum Pounds per Month																																								
Month with Maximum																																								
Maximum Pounds per Year																																								
Maximum Average Pounds per Hour																																								
Year with Maximum																																								
Tons per Year																																								

Table 5.1A.58 Onsite Construction Exhaust and Fugitive Emissions Summary

Construction Step	SOx Emissions by Month																																			
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	
Peaker and Tank Area and Stack 3&4 Demolition																																				
Total (lbs/month)																																				
Total (lbs/day)																																				
Units 3 & 4 Demolition																																				
Total (lbs/month)																																				
Total (lbs/day)																																				
Block 1 Construction																																				
Total (lbs/month)	0.98	0.90	0.90	0.90	0.54	0.54	0.47	0.47	0.80	0.80																										
Total (lbs/day)	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.03	0.03																										
Block 2 Construction																																				
Total (lbs/month)	0.97	2.34	2.34	1.81	2.17	1.77	1.78	1.78	1.78	1.94	1.78	1.78	2.11	1.93	1.52	1.52	1.52	1.52	1.17	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.54	0.87	0.87							
Total (lbs/day)	0.04	0.10	0.10	0.08	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.08	0.07	0.07	0.07	0.07	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.04	0.04							
Units 1 & 2 Demolition																																				
Total (lbs/month)																																				
Total (lbs/day)																																				
Bldgs. 33 & 34 Construction																																				
Total (lbs/month)																																				
Total (lbs/day)																																				
Total Onsite SOx Emissions (Construction Equipment and Vehicles)																																				
Pounds per Month	4.23	3.24	3.24	2.71	2.71	2.31	2.24	2.23	2.56	2.74	1.78	1.78	2.11	1.93	1.52	1.52	1.52	1.52	1.17	0.98	0.98	0.98	0.98	0.98	0.98	0.54	0.87	0.87	0.00	0.00	0.00	1.64	1.64	1.97	1.97	
Pounds per Day	0.18	0.14	0.14	0.12	0.12	0.10	0.10	0.10	0.11	0.12	0.08	0.08	0.09	0.08	0.07	0.07	0.07	0.07	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.04	0.04	0.00	0.00	0.00	0.07	0.07	0.09	0.09
Yearly Maximums	32	30	28	27	25	24	23	22	21	19	18	17	16	15	13	13	12	10	9	8	8	9	10	11	13	14	15	17	18	20	22	25	26	27	28	
Maximum Pounds per Day																																				
Maximum Pounds per Hour *																																				
Maximum Pounds per Month																																				
Month with Maximum																																				
Maximum Pounds per Year																																				
Maximum Average Pounds per Hour *																																				
Year with Maximum																																				
Tons per Year																																				

Construction Step	Exhaust PM ₁₀ Emissions by Month																																		
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Peaker and Tank Area and Stack 3&4 Demolition																																			
Total (lbs/month)																																			
Total (lbs/day)																																			
Units 3 & 4 Demolition																																			
Total (lbs/month)																																			
Total (lbs/day)																																			
Block 1 Construction																																			
Total (lbs/month)	23.38	19.50	19.50	19.50	13.15	13.15	10.84	10.84	22.59	22.59																									
Total (lbs/day)	1.02	0.85	0.85	0.85	0.57	0.57	0.47	0.47	0.98	0.98																									
Block 2 Construction																																			
Total (lbs/month)	29.24	78.19	78.19	54.34	60.65	48.69	41.65	41.61	41.61	44.77	36.25	36.19	41.85	39.02	31.79	31.79	31.79	31.79	26.13	20.40	16.98	16.98	14.81	14.81	14.81	9.72	19.01	19.01							
Total (lbs/day)	1.27	3.40	3.40	2.36	2.64	2.12	1.81	1.81	1.81	1.95	1.58	1.57	1.82	1.70	1.38	1.38	1.38	1.38	1.14	0.89	0.74	0.74	0.64	0.64	0.64	0.42	0.83	0.83							
Units 1 & 2 Demolition																																			
Total (lbs/month)																																			
Total (lbs/day)																																			
Bldgs. 33 & 34 Construction																																			
Total (lbs/month)																																			
Total (lbs/day)																																			
Total Onsite Exhaust PM ₁₀ Emissions (Construction Equipment and Vehicles)																																			
Pounds per Month	107.94	97.69	97.69	73.84	73.80	61.84	52.49	52.45	64.20	67.38	36.25	36.19	41.85	39.02	31.79	31.79	31.79	31.79	26.13	20.40	16.98	16.98	14.81	14.81	14.81	9.72	19.01	19.01	0.00	0.00	0.00	29.66	29.66	34.92	30.19
Pounds per Day	4.69	4.25	4.25	3.21	3.21	2.69	2.28	2.28	2.79	2.93	1.58	1.57	1.82	1.70	1.38	1.38	1.38	1.38	1.14	0.89	0.74	0.74	0.64	0.64	0.64	0.42	0.83	0.83	0.00	0.00	0.00	1.29	1.29	1.52	1.31
Yearly Maximums	822	756	697	631	589	547	517	491	459	411	361	340	318	291	262	249	236	204	173	147	156	168	186	202	220	239	261	273	285	316	353	405	428	453	470
Maximum Pounds per Day																																			
Maximum Pounds per Hour *																																			
Maximum Pounds per Month																																			
Month with Maximum																																			
Maximum Pounds per Year																																			
Maximum Average Pounds per Hour *																																			
Year with Maximum																																			
Tons per Year																																			

Construction Step	Fugitive PM ₁₀ Emissions by Month																																			
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	
Peaker and Tank Area and Stack 3&4 Demolition																																				
Total (lbs/month)																																				
Total (lbs/day)																																				
Units 3 & 4 Demolition																																				
Total (lbs/month)																																				
Total (lbs/day)																																				
Block 1 Construction																																				
Total (lbs/month)	171.60	171.60	171.60	171.60	147.08	147.08	147.08	147.08	148.50	148.50																										
Total (lbs/day)	7.46	7.46	7.46	7.46	6.39	6.39	6.39	6.39	6.46	6.46																										
Block 2 Construction																																				
Total (lbs/month)	745.34	1,491.18	1,491.18	868.51	868.51	867.81	245.14	220.62	220.62	220.62	220.62	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	147.08	147.78	147.78							
Total (lbs/day)	32.43	64.63	64.63	37.76	37.76	37.73	10.66	9.59	9.59	9.59	9.59	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	6.39	6.43	6.43							
Units 1 & 2 Demolition																																				
Total (lbs/month)																																				
Total (lbs/day)																																				
Bldgs. 33 & 34 Construction																																				
Total (lbs/month)																																				
Total (lbs/day)																																				
Total Onsite Fugitive PM ₁₀ Emissions (Dismemberment, Debris Loading, Grading, Bulldozing, and Onsite Construction Vehicles)																																				
Pounds per Month	1,254.14	1,692.77	1,692.77	1,040.19	1,015.99	1,014.89	392.22	367.71	369.12	369.12	228.62	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	171.60	147.08	147.78	147.78	0.00	0.00	0.00	378.77	378.77	378.77	378.77
Pounds per Day	54.53	72.29	72.29	45.22	44.16	44.13	17.05	15.99	16.05	16.05	9.59	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	6.39	6.43	6.43	0.00	0.00	0.00	16.47	16.47	16.47	16.47
Yearly Maximums	9,541	8,458	6,967	5,476	4,607	3,763	2,920	2,699	2,503	2,306	2,108	2,059	2,059	2,059	2,035	2,011	1,987	1,815	1,644	1,472	1,679	1,887	2,094	2,301	2,508	2,715	2,947	3,178	3,409	3,788	4,384	5,659	6,554	7,450	8,291	
Maximum Pounds per Day																																				
Maximum Pounds per Hour *																																				
Maximum Pounds per Month																																				
Month with Maximum																																				
Maximum Pounds per Year																																				
Maximum Average Pounds per Hour *																																				
Year with Maximum																																				
Tons per Year																																				

Table 5.1A.58 Onsite Construction Exhaust and Fugitive Emissions Summary

Total Onsite PM₁₀ Emissions (Exhaust and Fugitive)

Parameter	Total PM ₁₀ Emissions by Month																																							
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70					
Pounds per Month	1,262.08	1,760.46	1,760.46	1,113.94	1,089.39	1,076.73	444.71	420.16	433.32	436.49	254.87	207.78	213.44	210.61	203.39	203.39	203.39	203.39	197.73	191.89	188.57	188.57	186.41	186.41	186.41	156.80	166.79	166.79	0.00	0.00	0.00	408.43	408.43	413.69	408.96					
Pounds per Day	59.22	76.54	76.54	48.43	47.36	46.81	19.34	18.27	18.84	18.98	11.17	9.03	9.28	9.16	8.84	8.84	8.84	8.84	8.60	8.35	8.20	8.20	8.10	8.10	8.10	6.82	7.25	7.25	0.00	0.00	0.00	17.76	17.76	17.99	17.78					
Yearly Maximums	10,362	9,214	7,664	6,107	5,196	4,310	3,437	3,190	2,962	2,717	2,469	2,399	2,377	2,350	2,296	2,260	2,223	2,020	1,816	1,619	1,835	2,055	2,280	2,503	2,729	2,954	3,208	3,451	3,694	4,104	4,737	6,064	6,982	7,903	8,761					
Maximum Pounds per Day																																								
Maximum Pounds per Hour																																								
Maximum Pounds per Month																																								
Month with Maximum																																								
Maximum Pounds per Year																																								
Maximum Average Pounds per Hour																																								
Year with Maximum																																								
Tons per Year																																								

Onsite Exhaust PM_{2.5} Emissions

Construction Step	Exhaust PM _{2.5} Emissions by Month																																							
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70					
Peaker and Tank Area and Stack 3&4 Demolition																																								
Total (lb/month)																																								
Total (lb/day)																																								
Units 3 & 4 Demolition																																								
Total (lb/month)	55.31																																							
Total (lb/day)	2.40																																							
Block 1 Construction																																								
Total (lb/month)	23.36	19.48	19.48	19.48	13.14	13.14	10.83	10.83	22.58	22.58																														
Total (lb/day)	1.02	0.85	0.85	0.85	0.57	0.57	0.47	0.47	0.98	0.98																														
Block 2 Construction																																								
Total (lb/month)	29.22	78.15	78.15	54.31	60.62	48.65	41.61	41.58	41.58	44.74	36.22	36.17	41.83	39.00	31.77	31.77	31.77	31.77	26.11	20.38	16.96	16.96	14.80	14.80	14.80	9.71	19.00	19.00	0.00	0.00	0.00	29.65	29.65	34.91	30.17					
Total (lb/day)	1.27	3.40	3.40	2.36	2.64	2.12	1.81	1.81	1.95	1.57	1.57	1.57	1.82	1.70	1.38	1.38	1.38	1.38	1.14	0.89	0.74	0.74	0.64	0.64	0.64	0.42	0.83	0.83	0.00	0.00	0.00	1.29	1.29	1.52	1.31					
Units 1 & 2 Demolition																																								
Total (lb/month)																																								
Total (lb/day)																																								
Bldgs. 33 & 34 Construction																																								
Total (lb/month)																																								
Total (lb/day)																																								

Total Onsite Exhaust PM_{2.5} Emissions (Construction Equipment and Vehicles)

Pounds per Month	107.89	97.63	97.63	73.79	73.76	61.79	52.44	52.41	64.16	67.31	36.22	36.17	41.83	39.00	31.77	31.77	31.77	31.77	26.11	20.38	16.96	16.96	14.80	14.80	14.80	9.71	19.00	19.00	0.00	0.00	0.00	29.65	29.65	34.91	30.17						
Pounds per Day	4.69	4.24	4.24	3.21	3.21	2.69	2.29	2.29	2.79	2.83	1.57	1.57	1.82	1.70	1.38	1.38	1.38	1.38	1.14	0.89	0.74	0.74	0.64	0.64	0.64	0.42	0.83	0.83	0.00	0.00	0.00	1.29	1.29	1.52	1.31						
Yearly Maximums	821	755	697	631	589	547	517	490	458	411	361	339	318	291	262	249	236	204	173	146	156	168	186	202	220	239	260	273	285	316	353	405	428	453	470						
Maximum Pounds per Day																																									
Maximum Pounds per Hour																																									
Maximum Pounds per Month																																									
Month with Maximum																																									
Maximum Pounds per Year																																									
Maximum Average Pounds per Hour																																									
Year with Maximum																																									
Tons per Year																																									

Onsite Fugitive PM_{2.5} Emissions

Construction Step	Fugitive PM _{2.5} Emissions by Month																																								
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70						
Peaker and Tank Area and Stack 3&4 Demolition																																									
Total (lb/month)																																									
Total (lb/day)																																									
Units 3 & 4 Demolition																																									
Total (lb/month)	44.67																																								
Total (lb/day)	1.94																																								
Block 1 Construction																																									
Total (lb/month)	17.16	17.16	17.16	17.16	14.71	14.71	14.71	14.71	14.86	14.86																															
Total (lb/day)	0.75	0.75	0.75	0.75	0.64	0.64	0.64	0.64	0.65	0.65																															
Block 2 Construction																																									
Total (lb/month)	163.16	326.25	326.25	176.42	176.42	176.36	24.53	22.06	22.06	22.06	22.06	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	14.71	14.78	14.78	0.00	0.00	0.00	51.05	51.05	51.05	51.05						
Total (lb/day)	7.09	14.18	14.18	7.63	7.63	7.62	1.07	0.96	0.96	0.96	0.96	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.64	0.64	0.64	0.00	0.00	0.00	2.22	2.22	2.22	2.22						
Units 1 & 2 Demolition																																									
Total (lb/month)																																									
Total (lb/day)																																									
Bldgs. 33 & 34 Construction																																									
Total (lb/month)																																									
Total (lb/day)																																									

Total Onsite Fugitive PM_{2.5} Emissions (Dismemberment, Debris Loading, Grading, Bulldozing, and Onsite Construction Vehicles)

Pounds per Month	224.99	343.41	343.41	192.58	190.13	190.05	39.22	36.77	36.92	36.92	22.06	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	14.71	14.78	14.78	0.00	0.00	0.00	51.05	51.05	
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Table 5.1A.58 Onsite Construction Exhaust and Fugitive Emissions Summary

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Onsite CO Emissions																				
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Units 3 & 4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Block 1 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Block 2 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Units 1 & 2 Demolition																				
Total (lb/month)	968.63	968.63	932.20	932.20	932.20	932.20	932.20	932.20	932.20	932.20	932.20	932.20	932.20	1,018.89	1,018.89	1,018.89	1,018.89	1,018.89	1,018.89	1,018.89
Total (lb/day)	42.11	42.11	40.53	40.53	40.53	40.53	40.53	40.53	40.53	40.53	40.53	40.53	40.53	44.30	44.30	44.30	44.30	44.30	44.30	44.30
Bldgs. 33 & 34 Construction																				
Total (lb/month)							106.76	421.56	421.56	457.49	401.39	401.39	86.95	86.95	86.95	86.95	86.95	86.95	86.95	86.95
Total (lb/day)							4.64	18.33	18.33	19.69	17.45	17.45	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78
Total Onsite CO Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	968.63	968.63	932.20	932.20	932.20	932.20	1,038.95	1,353.76	1,353.76	1,389.69	1,333.59	1,333.59	1,105.84	1,105.84	1,105.84	1,105.84	1,105.84	1,105.84	1,105.84	1,105.84
Pounds per Day	42.11	42.11	40.53	40.53	40.53	40.53	45.17	58.96	58.96	60.42	57.99	57.99	48.08	48.08	48.08	48.08	48.08	48.08	48.08	48.08
Yearly Maximums	13,469	13,607	13,744	13,917	14,091	14,265	14,438	14,595	14,257											
Maximum Pounds per Day																				
Maximum Pounds per Hour *																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour *																				
Year with Maximum																				
Tons per Year																				

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Onsite VOC Emissions																				
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Units 3 & 4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Block 1 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Block 2 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Units 1 & 2 Demolition																				
Total (lb/month)	137.43	137.43	126.93	126.93	126.93	126.93	126.93	126.93	126.93	126.93	126.93	126.93	126.93	144.53	144.53	144.53	144.53	144.53	144.53	144.53
Total (lb/day)	5.98	5.98	5.52	5.52	5.52	5.52	5.52	5.52	5.52	5.52	5.52	5.52	5.52	6.28	6.28	6.28	6.28	6.28	6.28	6.28
Bldgs. 33 & 34 Construction																				
Total (lb/month)							13.69	55.46	55.46	85.39	58.48	58.48	16.91	16.91	16.91	16.91	16.91	16.91	16.91	16.91
Total (lb/day)							0.60	2.41	2.41	2.84	2.54	2.54	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Total Onsite VOC Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	137.43	137.43	126.93	126.93	126.93	126.93	140.62	182.39	182.39	182.32	185.41	185.41	161.43	161.43	161.43	161.43	161.43	161.43	161.43	161.43
Pounds per Day	5.98	5.98	5.52	5.52	5.52	5.52	6.11	7.93	7.93	8.96	8.66	8.66	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02
Yearly Maximums	1,851	1,875	1,899	1,934	1,968	2,003	2,037	2,058	2,037											
Maximum Pounds per Day																				
Maximum Pounds per Hour *																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour *																				
Year with Maximum																				
Tons per Year																				

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Onsite NOx Emissions																				
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Units 3 & 4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Block 1 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Block 2 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Units 1 & 2 Demolition																				
Total (lb/month)	724.25	724.25	658.49	658.49	658.49	658.49	658.49	658.49	658.49	658.49	658.49	658.49	658.49	882.51	879.22	879.22	879.22	879.22	879.22	879.22
Total (lb/day)	31.49	31.49	28.63	28.63	28.63	28.63	28.63	28.63	28.63	28.63	28.63	28.63	28.63	25.33	29.53	29.53	29.53	29.53	29.53	29.53
Bldgs. 33 & 34 Construction																				
Total (lb/month)							89.32	343.70	343.70	409.47	362.08	330.56	97.79	97.79	97.79	97.79	97.79	97.79	97.79	97.79
Total (lb/day)							3.68	14.94	14.94	17.80	15.74	14.37	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Total Onsite NOx Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	724.25	724.25	658.49	658.49	658.49	658.49	747.81	1,002.19	1,002.19	1,067.96	1,020.56	913.07	777.01	777.01	777.01	777.01	777.01	777.01	777.01	777.01
Pounds per Day	31.49	31.49	28.63	28.63	28.63	28.63	32.51	43.57	43.57	46.43	44.37	39.70	33.78	33.78	33.78	33.78	33.78	33.78	33.78	33.78
Yearly Maximums	9,836	9,889	9,942	10,060	10,179	10,297	10,416	10,445	10,220											
Maximum Pounds per Day																				
Maximum Pounds per Hour *																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour *																				
Year with Maximum																				
Tons per Year																				

Table 5.1A.58 Onsite Construction Exhaust and Fugitive Emissions Summary

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	
Peaker and Tank Area and Stack 3&4 Demolition																					
Total (lbs/month)																					
Total (lbs/day)																					
Units 3 & 4 Demolition																					
Total (lbs/month)																					
Total (lbs/day)																					
Block 1 Construction																					
Total (lbs/month)																					
Total (lbs/day)																					
Block 2 Construction																					
Total (lbs/month)																					
Total (lbs/day)																					
Units 1 & 2 Demolition																					
Total (lbs/month)	2.20	2.20	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	
Total (lbs/day)	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
Bldgs. 33 & 34 Construction																					
Total (lbs/month)								0.17	0.70	0.88	0.78	0.78	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	
Total (lbs/day)								0.01	0.03	0.03	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Total Onsite SOx Emissions (Construction Equipment and Vehicles)																					
Pounds per Month	2.20	2.20	2.03	2.03	2.03	2.03	2.20	2.73	2.73	2.99	2.81	2.81	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	
Pounds per Day	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.11	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	
Yearly Maximums	29	29	29	30	30	31	31	32	32	33	33	33	31	31	31	31	31	31	31	31	
Maximum Pounds per Day																					
Maximum Pounds per Hour *																					
Maximum Pounds per Month																					
Month with Maximum																					
Maximum Pounds per Year																					
Maximum Average Pounds per Hour *																					
Year with Maximum																					
Tons per Year																					

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	
Peaker and Tank Area and Stack 3&4 Demolition																					
Total (lbs/month)																					
Total (lbs/day)																					
Units 3 & 4 Demolition																					
Total (lbs/month)																					
Total (lbs/day)																					
Block 1 Construction																					
Total (lbs/month)																					
Total (lbs/day)																					
Block 2 Construction																					
Total (lbs/month)																					
Total (lbs/day)																					
Units 1 & 2 Demolition																					
Total (lbs/month)	33.47	33.47	31.20	31.20	31.20	31.20	31.20	31.20	31.20	31.20	31.20	26.80	31.04	31.04	31.04	31.04	31.04	31.04	31.04	31.04	
Total (lbs/day)	1.46	1.46	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.17	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	
Bldgs. 33 & 34 Construction																					
Total (lbs/month)								5.54	21.24	23.51	20.60	18.15	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	
Total (lbs/day)								0.24	0.92	0.92	1.02	0.90	0.79	0.19	0.19	0.19	0.19	0.19	0.19	0.19	
Total Onsite Exhaust PM₁₀ Emissions (Construction Equipment and Vehicles)																					
Pounds per Month	33.47	33.47	31.20	31.20	31.20	31.20	36.73	52.44	52.44	54.71	51.80	44.94	35.34	35.34	35.34	35.34	35.34	35.34	35.34	35.34	
Pounds per Day	1.46	1.46	1.36	1.36	1.36	1.36	1.60	2.28	2.28	2.38	2.25	1.95	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	
Yearly Maximums	485	487	489	493	497	501	505	594	487												
Maximum Pounds per Day																					
Maximum Pounds per Hour *																					
Maximum Pounds per Month																					
Month with Maximum																					
Maximum Pounds per Year																					
Maximum Average Pounds per Hour *																					
Year with Maximum																					
Tons per Year																					

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	
Peaker and Tank Area and Stack 3&4 Demolition																					
Total (lbs/month)																					
Total (lbs/day)																					
Units 3 & 4 Demolition																					
Total (lbs/month)																					
Total (lbs/day)																					
Block 1 Construction																					
Total (lbs/month)																					
Total (lbs/day)																					
Block 2 Construction																					
Total (lbs/month)																					
Total (lbs/day)																					
Units 1 & 2 Demolition																					
Total (lbs/month)	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	
Total (lbs/day)	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	
Bldgs. 33 & 34 Construction																					
Total (lbs/month)								217.90	895.56	895.56	895.56	841.08	841.08	217.90	217.90	217.90	217.90	217.90	217.90	217.90	
Total (lbs/day)								9.47	38.94	38.94	38.94	36.57	36.57	9.47	9.47	9.47	9.47	9.47	9.47	9.47	
Total Onsite Fugitive PM₁₀ Emissions (Dismemberment, Debris Loading, Grading, Bulldozing, and Onsite Construction Vehicles)																					
Pounds per Month	378.77	378.77	378.77	378.77	378.77	378.77	378.77	596.67	1,274.33	1,274.33	1,274.33	1,219.85	1,219.85	596.67	596.67	596.67	596.67	596.67	596.67	596.67	
Pounds per Day	16.47	16.47	16.47	16.47	16.47	16.47	16.47	25.94	55.41	55.41	55.41	53.04	53.04	25.94	25.94	25.94	25.94	25.94	25.94	25.94	
Yearly Maximums	9,132	9,350	9,568	9,786	10,004	10,221	10,439	10,439	9,762												
Maximum Pounds per Day																					
Maximum Pounds per Hour *																					
Maximum Pounds per Month																					
Month with Maximum																					
Maximum Pounds per Year																					
Maximum Average Pounds per Hour *																					
Year with Maximum																					
Tons per Year																					

Table 5.1A.58 Onsite Construction Exhaust and Fugitive Emissions Summary

Total Onsite PM₁₀ Emissions (Exhaust and Fugitive)

Parameter	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Pounds per Month	412.24	412.24	409.97	409.97	409.97	409.97	632.40	1,326.76	1,326.76	1,329.03	1,271.65	1,264.89	632.01	632.01	632.01	632.01	632.01	632.01	632.01	632.01
Pounds per Day	17.92	17.92	17.82	17.82	17.82	17.82	27.54	57.69	57.69	57.78	55.29	54.99	27.48	27.48	27.48	27.48	27.48	27.48	27.48	27.48
Yearly Maximums	9,617	9,637	10,056	10,276	10,500	10,722	10,944	10,943	10,248											
Maximum Pounds per Day																				
Maximum Pounds per Hour*																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour*																				
Year with Maximum																				
Tons per Year																				

Onsite Exhaust PM_{2.5} Emissions

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Units 3 & 4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Block 1 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Block 2 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Units 1 & 2 Demolition																				
Total (lb/month)	33.45	33.45	31.18	31.18	31.18	31.18	31.18	31.18	31.18	31.18	31.18	26.78	31.03	31.03	31.03	31.03	31.03	31.03	31.03	31.03
Total (lb/day)	1.45	1.45	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.16	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Bldgs. 33 & 34 Construction																				
Total (lb/month)							5.53	21.23	21.23	23.50	20.60	18.14	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29
Total (lb/day)							0.24	0.92	0.92	1.02	0.90	0.79	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Total Onsite Exhaust PM_{2.5} Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	33.45	33.45	31.18	31.18	31.18	31.18	36.71	52.41	52.41	54.68	51.78	44.92	35.31	35.31	35.31	35.31	35.31	35.31	35.31	35.31
Pounds per Day	1.45	1.45	1.36	1.36	1.36	1.36	1.60	2.29	2.29	2.38	2.25	1.95	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
Yearly Maximums	485	486	488	492	497	501	595	503	486											
Maximum Pounds per Day																				
Maximum Pounds per Hour*																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour*																				
Year with Maximum																				
Tons per Year																				

Onsite Fugitive PM_{2.5} Emissions

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Units 3 & 4 Demolition																				
Total (lb/month)																				
Total (lb/day)																				
Block 1 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Block 2 Construction																				
Total (lb/month)																				
Total (lb/day)																				
Units 1 & 2 Demolition																				
Total (lb/month)	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05
Total (lb/day)	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22
Bldgs. 33 & 34 Construction																				
Total (lb/month)							21.79	178.13	178.13	178.13	172.68	172.68	21.79	21.79	21.79	21.79	21.79	21.79	21.79	21.79
Total (lb/day)							0.95	7.74	7.74	7.74	7.51	7.51	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Total Onsite Fugitive PM_{2.5} Emissions (Dismemberment, Debris Loading, Grading, Bulldozing, and Onsite Construction Vehicles)																				
Pounds per Month	51.05	51.05	51.05	51.05	51.05	51.05	72.84	228.18	228.18	228.18	223.73	223.73	72.84	72.84	72.84	72.84	72.84	72.84	72.84	72.84
Pounds per Day	2.22	2.22	2.22	2.22	2.22	2.22	3.17	9.96	9.96	9.96	9.73	9.73	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17
Yearly Maximums	1,514	1,536	1,558	1,580	1,601	1,623	1,645	1,645	1,489											
Maximum Pounds per Day																				
Maximum Pounds per Hour*																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour*																				
Year with Maximum																				
Tons per Year																				

Table 5.1A.59 Offsite Construction Exhaust and Fugitive Emissions Summary

Total Offsite PM_{2.5} Emissions (Exhaust and Fugitive)

Parameter	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41					
Pounds per Month	0.14	1.30	1.50	2.60	5.06	5.54	9.23	9.75	10.26	14.49	14.99	14.58	16.10	12.27	12.27	16.78	14.62	17.11	18.10	23.28	23.68	24.45	26.27	28.30	29.53	32.37	32.82	35.66	34.56	34.75	31.59	32.64	30.20	38.48	39.91	43.94	31.66	31.02	35.71	37.91	40.50					
Pounds per Day	0.01	0.06	0.07	0.11	0.22	0.24	0.40	0.42	0.45	0.63	0.65	0.63	0.70	0.53	0.53	0.47	0.64	0.74	0.79	1.01	1.03	1.06	1.14	1.23	1.28	1.41	1.43	1.55	1.50	1.51	1.37	1.42	1.31	1.67	1.74	1.91	1.38	1.35	1.55	1.65	1.76					
Yearly Maximums	89	105	116	127	135	145	156	165	179	192	202	214	227	241	261	281	306	326	344	357	367	373	387	401	416	419	417	420	422	428	434	443	450	461	446	431	418	418	417	412	403					
Maximum Pounds per Day	1.91																																													
Maximum Pounds per Hour ^a	0.191																																													
Maximum Pounds per Month	43.94																																													
Month with Maximum	36																																													
Maximum Pounds per Year	461																																													
Maximum Average Pounds per Hour ^b	0.053																																													
Year with Maximum	Months 34 - 45																																													
Tons per Year	0.23																																													

Offsite CO₂ Emissions

Construction Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41									
Peaker and Tank Area and Stack 3&4 Demolition																																																		
Total (metric tons/month)	0.38	2.35	2.67	4.15	9.77	10.59	19.67	20.71	21.51	21.76	21.52	18.73	17.69	6.80	5.84																																			
Total (metric tons/day)	0.02	0.10	0.12	0.18	0.42	0.46	0.96	0.90	0.94	0.95	0.94	0.81	0.77	0.30	0.25																																			
Units 3 & 4 Demolition																																																		
Total (lbs/month)										10.67	13.24	15.63	19.81	19.69	20.65	22.60	22.60	27.13	27.13	33.92	33.92	36.18	38.44	38.44	38.44	38.44	38.44	38.44	33.60	32.68	25.12	22.38	15.22	38.44	38.44	38.44														
Total (lbs/day)										0.48	0.55	0.65	0.86	0.86	0.90	0.98	0.98	1.18	1.18	1.47	1.47	1.57	1.67	1.67	1.67	1.67	1.67	1.67	1.46	1.42	1.09	0.97	0.66	1.67	1.67	1.67														
Block 1 Construction																																																		
Total (metric tons/month)																	1.16	7.38	9.43	11.15	16.85	17.49	18.92	22.07	26.24	28.15	34.16	36.35	42.78	44.36	45.11	45.43	48.17	46.94	45.48	47.72	47.15	49.06	40.54	40.51	40.51	41.47								
Total (metric tons/day)																	0.05	0.32	0.41	0.48	0.73	0.76	0.82	0.96	1.14	1.22	1.49	1.58	1.86	1.93	1.96	1.98	2.09	2.04	1.98	2.07	2.05	2.13	1.76	1.76	1.76	1.80								
Block 2 Construction																																																		
Total (metric tons/month)																																																		
Total (metric tons/day)																																																		
Units 1 & 2 Demolition																																																		
Total (metric tons/month)																																																		
Total (metric tons/day)																																																		
Bldgs. 33 & 34 Construction																																																		
Total (metric tons/month)																																																		
Total (metric tons/day)																																																		
Total Offsite CO₂ Emissions (Construction Vehicles)																																																		
Metric Tons per Month	0.38	2.35	2.67	4.15	9.77	10.59	19.67	20.71	21.51	21.76	21.52	18.73	17.69	6.80	5.84																																			
Metric Tons per Day	0.02	0.10	0.12	0.18	0.42	0.46	0.96	0.90	0.94	0.95	0.94	0.81	0.77	0.30	0.25																																			
Yearly Maximums	194	231	255	279	298	319	345	363	393	423	445	471	502	531	577	625	683	731	772	804	824	835	863	889	917	908	888	877	863	858	854	852	851	864	830	797	787	772	781	777	765									
Maximum Metric Tons per Day	4.01																																																	
Maximum Metric Tons per Hour ^a	0.49																																																	
Maximum Metric Tons per Month	92.27																																																	
Month with Maximum	36																																																	
Maximum Metric Tons per Year	917																																																	
Maximum Average Metric Tons per Hour ^b	0.10																																																	
Year with Maximum	Months 25 - 36																																																	

Offsite N₂O Emissions

Construction Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41										
Peaker and Tank Area and Stack 3&4 Demolition																																																			
Total (metric tons/month)	0.000011	0.0000201	0.0000237	0.0000451	0.0000721	0.0000798	0.0001143	0.0001213	0.0001303	0.0001283	0.0001210	0.0000851	0.0000781	0.0000436	0.0000329																																				
Total (metric tons/day)	0.0000000	0.0000009	0.0000010	0.0000020	0.0000031	0.0000035	0.0000050	0.0000053	0.0000057	0.0000056	0.0000053	0.0000037	0.0000034	0.0000019	0.0000014																																				
Units 3 & 4 Demolition																																																			

Table 5.1A.59 Offsite Construction Exhaust and Fugitive Emissions Summary

Total Offsite PM₁₀ Emissions (Exhaust and Fugitive)

Parameter	Total PM ₁₀ Emissions by Month																																																					
	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85										
Pounds per Month	136.94	140.72	133.35	136.12	71.93	81.34	101.19	101.75	100.70	99.31	98.63	97.60	98.99	92.99	97.17	91.60	90.09	69.65	55.88	37.27	37.17	35.81	0.00	0.00	0.00	10.52	12.00	17.47	23.17	24.14	26.33	27.05	27.05	29.94	29.94	47.56	54.42	56.41	58.82	58.24	57.14	59.48	59.65	61.85										
Pounds per Day	5.79	6.08	5.76	5.97	3.13	3.54	4.40	4.42	4.38	4.32	4.29	4.24	4.30	4.04	4.22	3.98	3.92	3.03	2.43	1.62	1.62	1.56	0.00	0.00	0.00	0.46	0.52	0.76	1.01	1.05	1.14	1.18	1.18	1.30	1.30	2.07	2.37	2.45	2.56	2.58	2.48	2.59	2.59	2.69										
Yearly Maximums	1,302	1,284	1,216	1,180	1,133	1,151	1,140	1,094	1,030	966	903	894	707	608	525	440	366	299	253	224	214	204	198	228	275	330	375	422	464	498	533	567	602	632	655	674	672	631																
Maximum Pounds per Day																																																						
Maximum Pounds per Hour *																																																						
Maximum Pounds per Month																																																						
Month with Maximum																																																						
Maximum Pounds per Year																																																						
Maximum Average Pounds per Hour *																																																						
Year with Maximum																																																						
Tons per Year																																																						

Offsite Exhaust PM_{2.5} Emissions

Construction Step	Exhaust PM _{2.5} Emissions by Month																																																								
	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85													
Peaker and Tank Area and Stack 3&4 Demolition																																																									
Units 3 & 4 Demolition																																																									
Block 1 Construction																																																									
Block 2 Construction																																																									
Units 1 & 2 Demolition																																																									
Bldgs. 33 & 34 Construction																																																									
Total Offsite Exhaust PM _{2.5} Emissions (Construction Vehicles)																																																									
Pounds per Month	48.66	48.63	58.12	41.15	22.96	25.36	30.94	31.19	30.73	38.12	29.53	29.02	29.63	27.29	28.12	26.68	26.07	20.54	16.25	11.03	11.24	10.62	0.00	0.00	0.00	3.93	4.59	6.13	7.87	8.07	8.68	9.11	9.11	10.39	10.39	16.64	18.31	19.06	20.13	20.43	19.17	19.68	19.70	20.32													
Pounds per Day	1.77	1.77	1.70	1.79	1.00	1.10	1.35	1.36	1.34	1.31	1.28	1.26	1.29	1.19	1.27	1.16	1.13	0.88	0.71	0.48	0.49	0.46	0.00	0.00	0.00	0.17	0.20	0.27	0.34	0.35	0.38	0.40	0.40	0.45	0.45	0.70	0.80	0.83	0.88	0.89	0.83	0.86	0.86	0.86	0.88												
Yearly Maximums	391	380	367	357	343	346	341	326	306	286	267	237	208	179	155	131	110	92	80	72	70	68	68	78	94	113	128	143	158	169	181	192	203	212	218	223	221	208																			
Maximum Pounds per Day																																																									
Maximum Pounds per Hour *																																																									
Maximum Pounds per Month																																																									
Month with Maximum																																																									
Maximum Pounds per Year																																																									
Maximum Average Pounds per Hour *																																																									
Year with Maximum																																																									
Tons per Year																																																									

Offsite Fugitive PM_{2.5} Emissions

Construction Step	Fugitive PM _{2.5} Emissions by Month																																																						
	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85											
Peaker and Tank Area and Stack 3&4 Demolition *																																																							
Units 3 & 4 Demolition																																																							
Block 1 Construction																																																							
Block 2 Construction																																																							
Units 1 & 2 Demolition *																																																							
Bldgs. 33 & 34 Construction *																																																							
Total Offsite Fugitive PM _{2.5} Emissions (Grading)																																																							
Pounds per Month	0.076	0.076	0.076	0.076	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
Pounds per Day	0.003	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Yearly Maximums	0.61	0.57	0.53	0.50	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.42	0.38	0.34	0.31	0.27	0.23	0.19	0.15	0.11	0.08	0.04	0.00	0.00	0.00	0.00	0																												

Table 5.1A.59 Offsite Construction Exhaust and Fugitive Emissions Summary

Total Offsite PM_{2.5} Emissions (Exhaust and Fugitive)

Parameter	Total PM _{2.5} Emissions by Month																																																					
	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85										
Pounds per Month	40.74	46.71	44	39.19	41.22	23.00	25.40	30.98	31.22	30.77	30.15	29.57	29.08	29.67	27.33	28.16	26.71	26.10	20.38	16.29	11.07	11.28	10.66	0.00	0.00	3.93	4.59	6.13	7.87	8.07	8.68	9.11	9.11	10.39	10.39	16.04	18.31	19.06	20.13	20.43	19.68	19.70	20.32											
Pounds per Day	1.77	1.77	1.70	1.79	1.00	1.10	1.35	1.36	1.34	1.31	1.29	1.26	1.29	1.19	1.27	1.16	1.13	0.89	0.71	0.48	0.49	0.46	0.00	0.00	0.17	0.20	0.27	0.34	0.35	0.38	0.40	0.40	0.45	0.45	0.70	0.80	0.83	0.88	0.89	0.83	0.86	0.86	0.88											
Yearly Maximums	392	381	368	358	343	346	341	326	306	287	267	238	209	179	156	131	110	92	80	72	70	68	68	78	94	113	128	143	158	169	181	192	203	212	218	223	221	208																
Maximum Pounds per Day																																																						
Maximum Pounds per Hour ^a																																																						
Maximum Pounds per Month																																																						
Month with Maximum																																																						
Maximum Pounds per Year																																																						
Maximum Average Pounds per Hour ^b																																																						
Year with Maximum																																																						
Tons per Year																																																						

Offsite CO₂ Emissions

Construction Step	CO ₂ Emissions by Month																																																							
	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85												
Peaker and Tank Area and Stack 3&4 Demolition																																																								
Units 3 & 4 Demolition																																																								
Block 1 Construction																																																								
Block 2 Construction																																																								
Units 1 & 2 Demolition																																																								
Bldgs. 33 & 34 Construction																																																								
Total Offsite CO ₂ Emissions (Construction Vehicles)																																																								
Metric Tons per Month	73.58	69.32	69.05	74.92	50.78	53.25	62.05	62.89	61.31	59.21	56.23	54.29	56.39	49.30	55.60	47.20	45.11	36.20	28.69	20.58	22.04	19.94	0.00	0.00	0.00	10.96	13.22	15.60	19.77	19.65	20.60	22.55	22.55	27.08	27.08	34.08	37.40	39.36	43.13	44.94	46.42	38.91	38.61	38.61												
Metric Tons per Day	3.29	3.01	3.00	3.26	2.21	2.32	2.70	2.73	2.67	2.57	2.44	2.36	2.45	2.14	2.42	2.05	1.96	1.57	1.25	0.89	0.96	0.87	0.00	0.00	0.00	0.48	0.57	0.68	0.86	0.85	0.90	0.98	0.98	1.18	1.18	1.47	1.47	1.67	1.67	1.67	1.88	1.88	1.76	1.69	1.68	1.68										
Yearly Maximums	747	730	710	696	689	663	646	612	570	531	492	435	381	325	286	244	212	187	170	162	164	165	172	199	233	271	299	329	358	379	399	416	432	439	440	434	418	396																		
Maximum Metric Tons per Day																																																								
Maximum Metric Tons per Hour ^a																																																								
Maximum Metric Tons per Month																																																								
Month with Maximum																																																								
Maximum Metric Tons per Year																																																								
Maximum Average Metric Tons per Hour ^b																																																								
Year with Maximum																																																								

Offsite N₂O Emissions

Construction Step	N ₂ O Emissions by Month																																																							
	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85												
Peaker and Tank Area and Stack 3&4 Demolition																																																								
Units 3 & 4 Demolition																																																								
Block 1 Construction																																																								
Block 2 Construction																																																								
Units 1 & 2 Demolition																																																								
Bldgs. 33 & 34 Construction																																																								
Total Offsite N ₂ O Emissions (Construction Vehicles)																																																								
Metric Tons per Month	0.00066	0.00068	0.00064	0.00066	0.00034	0.00039	0.00049	0.00043	0.00048	0.00048	0.00047	0.00045	0.00045	0.00047	0.00044	0.00044	0.00034	0.00027	0.00018	0.00018	0.00017	0.00000	0.00000	0.00000	0.00000	0.00005	0.00006	0.00008	0.00011	0.00012	0.00013	0.00013	0.00013	0.00014	0.00014	0.00014	0.00023	0.00026	0.00027	0.00028	0.00028	0.00027	0.00029	0.00029	0.00030											
Metric Tons per Day	0.00003	0.00003	0.00003	0.00003	0.00001	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001			
Yearly Maximums	0.00626	0.00608	0.00585	0.00567	0.00545	0.00555	0.00549	0.00528	0.00497	0.00466	0.00436	0.00388	0.00341	0.00294	0.00254	0.00212	0.00176	0.00144	0.00121	0.00107	0.00102	0.00097	0.00094	0.00108	0.00131	0.00157	0.00179	0.00202	0.00222	0.00238	0.00255	0.00271	0.00288																							

Table 5.1A.59 Offsite Construction
 Exhaust and Fugitive Emissions
 Summary

Construction Step	86	87	88	89	90
Offsite CO Emissions					
Peaker and Tank Area and Stack 3&4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (lbs/month)					
Total (lbs/day)					
Block 2 Construction					
Total (lbs/month)					
Total (lbs/day)					
Units 1 & 2 Demolition					
Total (lbs/month)	94.05	91.49	60.81	53.14	41.12
Total (lbs/day)	4.09	3.98	2.54	2.31	1.79
Bldgs. 33 & 34 Construction					
Total (lbs/month)	83.71	70.38	88.15	84.82	0.37
Total (lbs/day)	3.64	3.06	3.83	3.69	0.02
Total Offsite CO Emissions (Construction Vehicles)					
Pounds per Month	177.76	161.87	148.97	137.96	41.50
Pounds per Day	7.73	7.04	6.48	6.00	1.80
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour *					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour †					
Year with Maximum					
Tons per Year					

Construction Step	86	87	88	89	90
Offsite VOC Emissions					
Peaker and Tank Area and Stack 3&4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (lbs/month)					
Total (lbs/day)					
Block 2 Construction					
Total (lbs/month)					
Total (lbs/day)					
Units 1 & 2 Demolition					
Total (lbs/month)	7.38	7.14	5.44	4.71	4.09
Total (lbs/day)	0.32	0.31	0.24	0.20	0.18
Bldgs. 33 & 34 Construction					
Total (lbs/month)	1.36	1.15	1.43	1.38	0.07
Total (lbs/day)	0.06	0.05	0.06	0.06	0.00
Total Offsite VOC Emissions (Construction Vehicles)					
Pounds per Month	8.74	8.29	6.87	6.09	4.15
Pounds per Day	0.38	0.36	0.30	0.26	0.18
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour *					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour †					
Year with Maximum					
Tons per Year					

Construction Step	86	87	88	89	90
Offsite NOx Emissions					
Peaker and Tank Area and Stack 3&4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (lbs/month)					
Total (lbs/day)					
Block 2 Construction					
Total (lbs/month)					
Total (lbs/day)					
Units 1 & 2 Demolition					
Total (lbs/month)	96.53	93.41	69.92	60.56	52.29
Total (lbs/day)	4.20	4.06	3.04	2.63	2.27
Bldgs. 33 & 34 Construction					
Total (lbs/month)	28.84	23.63	29.81	28.71	0.78
Total (lbs/day)	1.23	1.04	1.30	1.25	0.03
Total Offsite NOx Emissions (Construction Vehicles)					
Pounds per Month	124.87	117.34	99.73	89.27	53.07
Pounds per Day	5.43	5.10	4.34	3.88	2.31
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour *					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour †					
Year with Maximum					
Tons per Year					

Table 5.1A.59 Offsite Construction
 Exhaust and Fugitive Emissions
 Summary

Construction Step	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (lbs/month)					
Total (lbs/day)					
Block 2 Construction					
Total (lbs/month)					
Total (lbs/day)					
Units 1 & 2 Demolition					
Total (lbs/month)	0.616	0.597	0.435	0.377	0.321
Total (lbs/day)	0.027	0.026	0.019	0.016	0.014
Bldgs. 33 & 34 Construction					
Total (lbs/month)	0.271	0.229	0.286	0.276	0.004
Total (lbs/day)	0.012	0.010	0.012	0.012	0.000
Total Offsite SOx Emissions (Construction Vehicles)					
Pounds per Month	0.888	0.826	0.721	0.652	0.325
Pounds per Day	0.039	0.036	0.031	0.028	0.014
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour *					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour *					
Year with Maximum					
Tons per Year					

Construction Step	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (lbs/month)					
Total (lbs/day)					
Block 2 Construction					
Total (lbs/month)					
Total (lbs/day)					
Units 1 & 2 Demolition					
Total (lbs/month)	30.45	29.61	19.83	17.31	13.55
Total (lbs/day)	1.32	1.29	0.86	0.75	0.59
Bldgs. 33 & 34 Construction					
Total (lbs/month)	27.52	23.14	28.99	27.89	0.13
Total (lbs/day)	1.20	1.01	1.26	1.21	0.01
Total Offsite Exhaust PM₁₀ Emissions (Construction Vehicles)					
Pounds per Month	57.98	52.75	48.81	45.20	13.68
Pounds per Day	2.52	2.29	2.12	1.97	0.59
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour *					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour *					
Year with Maximum					
Tons per Year					

Construction Step	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition *					
Total (lbs/month)					
Total (lbs/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (lbs/month)					
Total (lbs/day)					
Block 2 Construction					
Total (lbs/month)					
Total (lbs/day)					
Units 1 & 2 Demolition *					
Total (lbs/month)					
Total (lbs/day)					
Bldgs. 33 & 34 Construction *					
Total (lbs/month)					
Total (lbs/day)					
Total Offsite Fugitive PM₁₀ Emissions (Grading)					
Pounds per Month	0.00	0.00	0.00	0.00	0.00
Pounds per Day	0.00	0.00	0.00	0.00	0.00
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour *					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour *					
Year with Maximum					
Tons per Year					

Table 5.1A.59 Offsite Construction
 Exhaust and Fugitive Emissions
 Summary

Total Offsite PM₁₀ Emissions (Exhaust and Fugitive)

Parameter	86	87	88	89	90
Pounds per Month	57.98	52.75	48.81	45.20	13.68
Pounds per Day	2.52	2.29	2.12	1.97	0.59
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour *					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour *					
Year with Maximum					
Tons per Year					

Offsite Exhaust PM_{2.5} Emissions

Construction Step	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (lbs/month)					
Total (lbs/day)					
Block 2 Construction					
Total (lbs/month)					
Total (lbs/day)					
Units 1 & 2 Demolition					
Total (lbs/month)	10.63	10.32	7.14	6.22	5.04
Total (lbs/day)	0.46	0.45	0.31	0.27	0.22
Bldgs. 33 & 34 Construction					
Total (lbs/month)	7.73	6.50	8.14	7.83	0.06
Total (lbs/day)	0.34	0.28	0.35	0.34	0.00
Total Offsite Exhaust PM_{2.5} Emissions (Construction Vehicles)					
Pounds per Month	18.36	16.62	15.28	14.05	5.09
Pounds per Day	0.89	0.73	0.66	0.61	0.22
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour *					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour *					
Year with Maximum					
Tons per Year					

Offsite Fugitive PM_{2.5} Emissions

Construction Step	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition *					
Total (lbs/month)					
Total (lbs/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (lbs/month)					
Total (lbs/day)					
Block 2 Construction					
Total (lbs/month)					
Total (lbs/day)					
Units 1 & 2 Demolition *					
Total (lbs/month)					
Total (lbs/day)					
Bldgs. 33 & 34 Construction *					
Total (lbs/month)					
Total (lbs/day)					
Total Offsite Fugitive PM_{2.5} Emissions (Grading)					
Pounds per Month	0.000	0.000	0.000	0.000	0.000
Pounds per Day	0.000	0.000	0.000	0.000	0.000
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour *					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour *					
Year with Maximum					
Tons per Year					

Table 5.1A.59 Offsite Construction Exhaust and Fugitive Emissions Summary

Total Offsite PM_{2.5} Emissions (Exhaust and Fugitive)

Parameter	86	87	88	89	90
Pounds per Month	18.38	16.82	15.28	14.05	5.09
Pounds per Day	0.80	0.73	0.66	0.61	0.22
Yearly Maximums					
Maximum Pounds per Day					
Maximum Pounds per Hour ^a					
Maximum Pounds per Month					
Month with Maximum					
Maximum Pounds per Year					
Maximum Average Pounds per Hour ^b					
Year with Maximum					
Tons per Year					

Offsite CO₂ Emissions

Construction Step	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition					
Total (metric tons/month)					
Total (metric tons/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (metric tons/month)					
Total (metric tons/day)					
Block 2 Construction					
Total (metric tons/month)					
Total (metric tons/day)					
Units 1 & 2 Demolition					
Total (metric tons/month)	29.02	28.11	20.57	17.83	15.21
Total (metric tons/day)	1.26	1.22	0.89	0.78	0.66
Bldgs. 33 & 34 Construction					
Total (metric tons/month)	0.21	0.21	0.21	0.21	0.21
Total (metric tons/day)	0.01	0.01	0.01	0.01	0.01
Total Offsite CO₂ Emissions (Construction Vehicles)					
Metric Tons per Month	29.23	28.32	20.78	18.04	15.42
Metric Tons per Day	1.27	1.23	0.90	0.78	0.67
Yearly Maximums					
Maximum Metric Tons per Day					
Maximum Metric Tons per Hour ^a					
Maximum Metric Tons per Month					
Month with Maximum					
Maximum Metric Tons per Year					
Maximum Average Metric Tons per Hour ^b					
Year with Maximum					

Offsite N₂O Emissions

Construction Step	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition					
Total (metric tons/month)					
Total (metric tons/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (metric tons/month)					
Total (metric tons/day)					
Block 2 Construction					
Total (metric tons/month)					
Total (metric tons/day)					
Units 1 & 2 Demolition					
Total (metric tons/month)	0.001457	0.001417	0.000945	0.000826	0.000644
Total (metric tons/day)	0.000063	0.000062	0.000041	0.000036	0.000028
Bldgs. 33 & 34 Construction					
Total (metric tons/month)	0.0001347	0.0001133	0.0001419	0.0001365	0.0000006
Total (metric tons/day)	0.000059	0.000049	0.000062	0.000059	0.0000003
Total Offsite N₂O Emissions (Construction Vehicles)					
Metric Tons per Month	0.0028	0.0025	0.0024	0.0022	0.00098
Metric Tons per Day	0.0001	0.0001	0.0001	0.0001	0.00004
Yearly Maximums					
Maximum Metric Tons per Day					
Maximum Metric Tons per Hour ^a					
Maximum Metric Tons per Month					
Month with Maximum					
Maximum Metric Tons per Year					
Maximum Average Metric Tons per Hour ^b					
Year with Maximum					

Offsite CH₄ Emissions

Construction Step	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition					
Total (metric tons/month)					
Total (metric tons/day)					
Units 3 & 4 Demolition					
Total (lbs/month)					
Total (lbs/day)					
Block 1 Construction					
Total (metric tons/month)					
Total (metric tons/day)					
Block 2 Construction					
Total (metric tons/month)					
Total (metric tons/day)					
Units 1 & 2 Demolition					
Total (metric tons/month)	0.0004628	0.0004518	0.0002744	0.0002416	0.0001688
Total (metric tons/day)	0.0000201	0.0000196	0.0000119	0.0000105	0.0000073
Bldgs. 33 & 34 Construction					
Total (metric tons/month)	0.0006452	0.0005421	0.0006796	0.0006538	0.0000008
Total (metric tons/day)	0.0000281	0.0000236	0.0000295	0.0000284	0.0000003
Total Offsite CH₄ Emissions (Construction Vehicles)					
Metric Tons per Month	0.0011	0.00099	0.00095	0.00090	0.00017
Metric Tons per Day	0.00005	0.00004	0.00004	0.00004	0.00001
Yearly Maximums					
Maximum Metric Tons per Day					
Maximum Metric Tons per Hour ^a					
Maximum Metric Tons per Month					
Month with Maximum					
Maximum Metric Tons per Year					
Maximum Average Metric Tons per Hour ^b					
Year with Maximum					

Notes:
^a The hours per day are per Manpower Schedule Huntington
^b The hours per year are assumed to allow operation 24 hours
^c There are no offsite activities generating fugitive dust during P

Table 5.1A.60 Onsite and Offsite
 Construction Exhaust and Fugitive
 Emissions Summary

**Total Onsite and Offsite PM_{2.5} Emissions
 (Exhaust and Fugitive)**

Parameter	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
Pounds per Month	89.97	91.13	97.91	111.14	116.80	117.28	120.97	121.49	129.87	181.40	181.50	180.35	190.63	186.78	186.78	495.92	495.76	367.81	374.52	365.97	198.84	197.36	199.18	201.21	202.43	196.82	197.27	203.59	196.51	190.06	191.12	188.67	185.70	187.13		
Pounds per Day	3.91	3.96	4.26	4.63	5.08	5.10	5.26	5.28	8.28	7.89	7.91	7.84	8.29	8.12	8.12	21.56	21.73	15.99	16.37	15.91	8.65	8.58	8.66	8.75	8.80	8.56	8.58	8.85	8.54	8.40	8.26	8.31	8.20	8.14		
Yearly Maximums	1,540	1,641	1,736	1,825	2,210	2,593	2,844	3,099	3,344	3,413	3,429	3,446	3,467	3,479	3,489	3,499	3,207	2,904	2,729	2,542	2,368	2,357	2,346	2,334	2,509	2,780	3,055	3,160	3,258	3,354	3,293	3,233	3,182	3,139	3,034	
Maximum Pounds per Day	21.73																																			
Maximum Pounds per Hour ^a	2.173																																			
Maximum Pounds per Month	495.76																																			
Month with Maximum	17																																			
Maximum Pounds per Year ^b	3,499																																			
Maximum Average Pounds per Hour ^a	0.399																																			
Year with Maximum	Months 16 - 27																																			
Tons per Year	1.75																																			

Onsite and Offsite CO₂ Emissions

Construction Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35		
Peaker and Tank Area and Stack 3&4 Demolition																																					
Total (metric tons/month)	56.81	58.79	68.27	87.70	97.81	98.64	107.71	108.75	118.75	112.24	112.01	108.99	118.58	107.67	108.71																						
Total (metric tons/day)	2.47	2.56	2.97	3.81	4.25	4.29	4.68	4.73	5.21	4.70	4.79	4.77	5.15	4.68	4.64																						
Units 3 & 4 Demolition																																					
Total (lbs/month)										41.97	44.23	46.63	50.81	50.69	51.65	53.59	53.59	93.88	93.88	123.11	123.11	135.58	137.84	130.09	130.09	130.09	130.09	130.09	125.24	124.33	116.77	114.02	108.87	141.32	141.32		
Total (lbs/day)										1.82	1.92	2.03	2.21	2.20	2.25	2.33	4.08	4.08	5.35	5.35	5.35	5.89	5.99	5.66	5.66	5.66	5.66	5.45	5.41	5.08	4.96	4.65	6.14	6.14			
Block 1 Construction																																					
Total (metric tons/month)																107.03	113.25	106.17	123.40	97.12	81.91	98.75	101.90	113.83	115.74	113.82	116.01	130.19	121.57	114.56	114.89	117.62	116.40	99.43	101.66		
Total (metric tons/day)																4.65	4.92	4.62	5.37	4.22	3.56	4.29	4.43	4.95	5.03	4.95	5.04	5.66	5.29	4.98	5.00	5.11	5.06	4.32	4.42		
Block 2 Construction																																					
Total (metric tons/month)																																					
Total (metric tons/day)																																					
Units 1 & 2 Demolition																																					
Total (metric tons/month)																																					
Total (metric tons/day)																																					
Bldgs. 33 & 34 Construction																																					
Total (metric tons/month)																																					
Total (metric tons/day)																																					
Total Onsite and Offsite CO₂ Emissions (Construction Equipment and Vehicles)																																					
Metric Tons per Month	56.81	58.79	68.27	87.70	97.81	98.64	107.71	108.75	118.75	154.21	156.24	155.61	169.36	158.36	158.36	160.62	166.84	200.05	217.28	220.24	205.02	234.33	239.74	243.91	245.83	243.91	246.09	260.28	246.81	238.89	231.65	231.64	223.26	240.75	242.98		
Metric Tons per Day	2.47	2.56	2.97	3.81	4.25	4.29	4.68	4.73	5.21	6.70	6.79	6.77	7.36	6.89	6.89	6.98	7.25	8.70	9.45	9.58	8.91	10.19	10.42	10.69	10.60	10.70	11.32	10.73	10.39	10.67	10.07	10.07	10.71	10.47	10.56		
Yearly Maximums	1,270	1,383	1,482	1,573	1,645	1,714	1,816	1,925	2,037	2,122	2,202	2,286	2,374	2,451	2,536	2,624	2,724	2,803	2,842	2,857	2,868	2,886	2,893	2,896	2,938	2,897	2,854	2,796	2,727	2,659	2,597	2,538	2,493	2,470	2,360		
Maximum Metric Tons per Day	12.42																																				
Maximum Metric Tons per Hour ^a	1.24																																				
Maximum Metric Tons per Month	285.69																																				
Month with Maximum	36																																				
Maximum Metric Tons per Year	2,938																																				
Maximum Average Metric Tons per Hour ^a	0.34																																				
Year with Maximum	Months 25 - 36																																				

Onsite and Offsite N₂O Emissions

Construction Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35		
Peaker and Tank Area and Stack 3&4 Demolition																																					
Total (metric tons/month)	0.00142731	0.00144630	0.00167892	0.00215756	0.00229894	0.00230664	0.00234111	0.00234813	0.00261681	0.00241743	0.00241015	0.00237268	0.00263596	0.00260146	0.00259073																						
Total (metric tons/day)	0.0006206	0.0006288	0.0007300	0.0009381	0.0009995	0.0010029	0.0010179	0.0010209	0.0011377	0.0010511	0.0010479	0.0010316	0.0011461	0.0011311	0.0011264																						
Units 3 & 4 Demolition																																					
Total (lbs/month)										0.000833	0.000840	0.000866	0.000895	0.000900	0.000910	0.000913	0.000913	0.001635	0.001636	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426	0.002426		
Total (lbs/day)										0.00036	0.00037	0.00038	0.00039	0.00039	0.00040	0.00040	0.00040	0.00076	0.00076	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	
Block 1 Construction																																					
Total (metric tons/month)																0.00268688	0.00275265	0.00253014	0.00294958	0.00216399	0.00176740	0.00217166	0.00218087	0.00240772	0.00242918	0.00227152	0.00226999	0.00250477	0.00225229	0.00206494	0.00207118	0.00211221	0.00212977	0.00173587	0.00176091		
Total (metric tons/day)																0.0011882	0.0011968	0.0011001	0.0012785	0.0009409	0.0007684	0.0009442	0.0009482	0.0010468	0.001												

Table 5.1A.60 Onsite and Offsite
 Construction Exhaust and Fugitive
 Emissions Summary

Construction Step	CO Emissions by Month																																					
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70			
Peaker and Tank Area and Stack 3&4 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Units 3 & 4 Demolition																																						
Total (lbs/month)	1,185.17																																					
Total (lbs/day)	51.53																																					
Block 1 Construction																																						
Total (lbs/month)	703.61	671.11	648.90	664.38	585.18	594.61	550.90	547.49	683.46	691.61																												
Total (lbs/day)	30.59	29.18	28.21	28.89	25.44	25.85	23.95	23.80	29.98	29.84																												
Block 2 Construction																																						
Total (lbs/month)	520.95	1,349.65	1,377.62	1,085.41	1,188.69	987.35	847.74	868.37	879.59	939.02	922.11	956.89	1,105.29	1,069.35	898.84	894.57	893.62	890.71	819.68	686.09	648.15	631.09	626.82	551.44	501.41	357.02	544.01	539.74										
Total (lbs/day)	22.65	58.68	59.90	47.79	51.68	42.93	36.86	37.76	38.24	40.83	40.09	41.60	48.06	46.49	39.08	38.89	38.85	38.73	35.64	29.83	28.18	27.44	27.25	23.98	21.80	15.52	23.65	23.47										
Units 1 & 2 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Bldgs. 33 & 34 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Total Onsite and Offsite CO Emissions (Construction Equipment and Vehicles)																																						
Pounds per Month	2,499.72	2,020.76	2,026.42	1,749.79	1,773.87	1,581.96	1,398.64	1,415.86	1,569.06	1,620.63	922.11	956.89	1,105.29	1,069.35	898.84	894.57	893.62	890.71	819.68	686.09	648.15	631.09	626.82	551.44	501.41	357.02	544.01	539.74	0.00	0.00	0.00	683.95	688.08	892.52	910.81			
Pounds per Day	104.77	87.86	88.11	78.08	77.12	68.78	60.81	61.56	68.22	70.46	40.09	41.60	48.06	46.49	39.08	38.89	38.85	38.73	35.64	29.83	28.18	27.44	27.25	23.98	21.80	15.52	23.65	23.47	0.00	0.00	0.00	29.74	29.92	38.81	39.60			
Yearly Maximums	19,446	18,141	17,190	16,062	15,267	14,327	13,636	13,857	12,327	11,466	10,416	10,121	9,716	9,112	8,399	8,045	7,890	7,796	7,905	7,086	6,884	6,124	5,385	5,669	6,161	6,711	7,370	7,842	8,327	9,351	10,535	12,054	12,895	13,775	14,395			
Maximum Pounds per Day																																						
Maximum Pounds per Hour ^a																																						
Maximum Pounds per Month																																						
Month with Maximum																																						
Maximum Pounds per Year																																						
Maximum Average Pounds per Hour ^b																																						
Year with Maximum																																						
Tons per Year																																						

Construction Step	VOC Emissions by Month																																					
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70			
Peaker and Tank Area and Stack 3&4 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Units 3 & 4 Demolition																																						
Total (lbs/month)	208.59																																					
Total (lbs/day)	9.07																																					
Block 1 Construction																																						
Total (lbs/month)	96.24	86.85	83.51	83.10	56.66	56.85	50.22	48.71	81.07	80.91																												
Total (lbs/day)	4.18	3.76	3.63	3.61	2.48	2.47	2.18	2.12	3.52	3.52																												
Block 2 Construction																																						
Total (lbs/month)	83.18	204.54	205.21	154.11	178.21	146.37	136.71	135.55	137.01	150.76	141.67	141.07	165.84	154.39	126.05	125.34	124.18	123.50	100.74	82.61	76.40	73.57	72.86	71.58	70.09	45.19	74.62	73.91										
Total (lbs/day)	3.62	8.89	8.92	6.70	7.75	6.36	5.94	5.89	5.96	6.55	6.16	6.13	7.21	6.71	5.48	5.45	5.40	5.37	4.38	3.59	3.32	3.20	3.17	3.11	3.05	1.96	3.24	3.21										
Units 1 & 2 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Bldgs. 33 & 34 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Total Onsite and Offsite VOC Emissions (Construction Equipment and Vehicles)																																						
Pounds per Month	388.00	291.39	288.72	237.21	234.87	203.22	186.94	184.26	218.08	231.68	141.67	141.07	165.84	154.39	126.05	125.34	124.18	123.50	100.74	82.61	76.40	73.57	72.86	71.58	70.09	45.19	74.62	73.91	0.00	0.00	0.00	107.25	107.92	127.64	128.53			
Pounds per Day	16.67	12.67	12.55	10.31	10.21	8.84	8.13	8.01	9.48	10.07	6.16	6.13	7.21	6.71	5.48	5.45	5.40	5.37	4.38	3.59	3.32	3.20	3.17	3.11	3.05	1.96	3.24	3.21	0.00	0.00	0.00	4.66	4.69	5.55	5.59			
Yearly Maximums	2,747	2,525	2,388	2,225	2,113	2,003	1,923	1,837	1,735	1,593	1,435	1,367	1,297	1,201	1,092	1,041	989	865	742	641	665	697	791	807	877	949	1,036	1,094	1,154	1,288	1,438	1,631	1,717	1,814	1,884			
Maximum Pounds per Day																																						
Maximum Pounds per Hour ^a																																						
Maximum Pounds per Month																																						
Month with Maximum																																						
Maximum Pounds per Year																																						
Maximum Average Pounds per Hour ^b																																						
Year with Maximum																																						
Tons per Year																																						

Construction Step	NOx Emissions by Month																																				
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70		
Peaker and Tank Area and Stack 3&4 Demolition																																					
Total (lbs/month)																																					
Total (lbs/day)																																					
Units 3 & 4 Demolition																																					
Total (lbs/month)	1,266.76																																				
Total (lbs/day)	55.09																																				
Block 1 Construction																																					
Total (lbs/month)	598.95	548.37	503.03	493.25	308.25	309.00	271.88	249.57	435.57	434.74																											
Total (lbs/day)	26.04	23.84	21.87	21.45	13.40	13.43	11.82	10.85	18.93	18.90																											
Block 2 Construction																																					
Total (lbs/month)	513.94	1,280.25	1,285.61	993.84	1,183.42	980.75	968.82	947.98	971.04	1,093.63	934.80	925.59	1,098.27	1,019.62	842.73	832.49	814.63	804.51	649.25	526.90	509.44	468.49	410.53	404.60	391.76	237.93	402.46	393.22									
Total (lbs/day)	22.35	55.66	55.90	43.21	51.45	42.64	42.12	41.22	42.22	47.55	40.64	40.24	47.79	44.33	36.64	36.20	35.42	34.98	28.23	22.91	22.15	20.37	17.85	17.59	17.03	10.34	17.50	17.10									
Units 1 & 2 Demolition																																					
Total (lbs/month)																																					
Total (lbs/day)																																					
Bldgs. 33 & 34 Construction																																					
Total (lbs/month)																																					
Total (lbs/day)																																					
Total Onsite and Offsite NOx Emissions (Construction Equipment and Vehicles)																																					
Pounds per Month	2,379.66	1,828.61	1,788.65	1,487.09	1,491.67	1,289.74	1,240.70	1,197.56	1,406.41	1,528.37	934.80	925.59	1,098.27	1,019.62	842.73	832.49	814.63	804.51	649.25	526.90	509.44	468.49	410.53	404.60	391.76	237.93	402.46	393.22	0.00	0.00	0.00	679.80	688.77	797.17	716.29		
Pounds per Day	103.46	79.50	77.77	64.66	64.86	56.08	53.94	52.07	61.15	66.45	40.64	40.24	47.75	44.33	36.64	36.20	35.42	34.98	28.23	22.91	22.15	20.37	17.85	17.59	17.03	10.34	17.50	17.10	0.00	0.00	0.00	29.56	29.99	34.6			

Table 5.1A.60 Onsite and Offsite
 Construction Exhaust and Fugitive
 Emissions Summary

Construction Step	SOx Emissions by Month																																					
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70			
Peaker and Tank Area and Stack 3&4 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Units 3 & 4 Demolition																																						
Total (lbs/month)	3.11																																					
Total (lbs/day)	0.14																																					
Block 1 Construction																																						
Total (lbs/month)	2,060	2,024	1,846	1,858	1,491	1,521	1,451	1,381	1,524	1,573																												
Total (lbs/day)	0,086	0,081	0,074	0,074	0,062	0,063	0,060	0,057	0,063	0,065																												
Block 2 Construction																																						
Total (lbs/month)	1,157	2,539	2,615	2,315	2,750	2,446	2,457	2,465	2,510	2,858	2,835	2,904	3,457	3,294	2,853	2,816	2,757	2,716	2,406	2,056	2,140	1,932	1,895	1,692	1,531	0,943	1,350	1,306										
Total (lbs/day)	0,048	0,110	0,113	0,100	0,119	0,103	0,103	0,103	0,104	0,124	0,124	0,125	0,150	0,143	0,124	0,122	0,119	0,118	0,104	0,086	0,091	0,084	0,082	0,073	0,066	0,043	0,057	0,056										
Units 1 & 2 Demolition																																						
Total (lbs/month)																														1,870	1,917	2,304	2,399					
Total (lbs/day)																														0,081	0,084	0,100	0,104					
Bldgs. 33 & 34 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Total Onsite and Offsite SOx Emissions (Construction Equipment and Vehicles)																																						
Pounds per Month	6,292	4,562	4,462	4,169	4,250	3,968	3,910	3,827	4,135	4,431	2,835	2,904	3,457	3,294	2,853	2,816	2,757	2,716	2,406	2,056	2,140	1,932	1,895	1,692	1,531	0,943	1,350	1,306	0,000	0,000	0,000	1,870	1,917	2,304	2,399			
Pounds per Day	0,273	0,194	0,194	0,181	0,184	0,172	0,170	0,166	0,179	0,192	0,124	0,125	0,150	0,143	0,124	0,122	0,119	0,118	0,104	0,086	0,091	0,084	0,082	0,073	0,066	0,043	0,057	0,056	0,000	0,000	0,000	0,081	0,084	0,100	0,104			
Yearly Maximums	50	47	46	44	43	41	40	38	37	35	32	31	30	28	26	24	23	20	17	15	15	15	15	15	16	17	19	20	21	24	27	31	33	35	36			
Maximum Pounds per Day																																						
Maximum Pounds per Hour																																						
Maximum Pounds per Month																																						
Month with Maximum																																						
Maximum Pounds per Year																																						
Maximum Average Pounds per Hour																																						
Year with Maximum																																						
Tons per Year																																						

Construction Step	Exhaust PM ₁₀ Emissions by Month																																					
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70			
Peaker and Tank Area and Stack 3&4 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Units 3 & 4 Demolition																																						
Total (lbs/month)	93.78																																					
Total (lbs/day)	4.08																																					
Block 1 Construction																																						
Total (lbs/month)	105.95	106.45	100.14	103.46	97.11	99.30	96.99	95.80	96.40	94.57																												
Total (lbs/day)	4.14	4.16	4.13	4.34	4.06	4.16	4.06	4.12	4.16	4.08																												
Block 2 Construction																																						
Total (lbs/month)	43.27	96.61	104.21	90.43	104.40	98.42	91.73	96.87	100.45	110.19	107.82	117.18	142.68	140.41	132.14	130.75	130.07	129.04	124.77	113.03	113.79	108.22	104.55	84.11	70.34	46.63	55.83	54.46										
Total (lbs/day)	1.88	4.20	4.53	3.93	4.54	4.28	3.99	4.21	4.37	4.79	4.69	5.09	6.20	6.10	5.75	5.68	5.66	5.61	5.42	4.91	4.95	4.71	4.55	3.66	3.06	2.03	2.43	2.37										
Units 1 & 2 Demolition																																						
Total (lbs/month)																														40.19	41.66	52.39	53.35					
Total (lbs/day)																														1.75	1.81	2.28	2.32					
Bldgs. 33 & 34 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Total Onsite and Offsite Exhaust PM₁₀ Emissions (Construction Equipment and Vehicles)																																						
Pounds per Month	243.00	203.06	204.35	193.89	201.51	197.72	188.72	192.47	196.85	204.76	167.82	117.18	142.68	140.41	132.14	130.75	130.07	129.04	124.77	113.03	113.79	108.22	104.55	84.11	70.34	46.63	55.83	54.46	0.00	0.00	0.00	40.19	41.66	52.39	53.35			
Pounds per Day	10.10	8.39	8.66	8.27	8.69	8.44	8.05	8.33	8.52	8.67	4.69	5.09	6.20	6.10	5.75	5.68	5.66	5.61	5.42	4.91	4.95	4.71	4.55	3.66	3.06	2.03	2.43	2.37	0.00	0.00	0.00	1.75	1.81	2.28	2.32			
Yearly Maximums	2,251	2,151	2,088	2,016	1,953	1,882	1,813	1,749	1,670	1,586	1,490	1,487	1,454	1,381	1,287	1,211	1,135	1,005	876	751	678	606	550	499	472	462	474	476	483	544	628	735	804	875	934			
Maximum Pounds per Day																																						
Maximum Pounds per Hour																																						
Maximum Pounds per Month																																						
Month with Maximum																																						
Maximum Pounds per Year																																						
Maximum Average Pounds per Hour																																						
Year with Maximum																																						
Tons per Year																																						

Construction Step	Fugitive PM ₁₀ Emissions by Month																																					
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70			
Peaker and Tank Area and Stack 3&4 Demolition																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Units 3 & 4 Demolition																																						
Total (lbs/month)	336.61																																					
Total (lbs/day)	14.64																																					
Block 1 Construction																																						
Total (lbs/month)	171.95	171.95	171.95	171.95	147.44	147.44	147.44	147.44	148.85	148.85																												
Total (lbs/day)	7.48	7.48	7.48	7.48	6.41	6.41	6.41	6.41	6.47	6.47																												
Block 2 Construction																																						
Total (lbs/month)	746.29	1,491.53	1,491.53	868.86	868.86	868.16	245.49	220.98	220.98	220.98	220.98	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95		
Total (lbs/day)	32.45	64.85	64.85	37.78	37.78	37.78	10.67	9.61	9.61	9.61	9.61	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48		
Units 1 & 2 Demolition																																						
Total (lbs/month)																														376.77	376.77	376.77	376.77					
Total (lbs/day)																														16.47	16.47	16.47	16.47					
Bldgs. 33 & 34 Construction																																						
Total (lbs/month)																																						
Total (lbs/day)																																						
Total Onsite and Offsite Fugitive PM₁₀ Emissions (Disassembly, Debris Loading, Grading, Bulldozing, and Onsite Construction Vehicles)																																						
Pounds per Month	1,254.85	1,663.48	1,663.48	1,040.81	1,016.30	1,016.60	392.93	368.41	368.83	369.83	220.98	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95	171.95		
Pounds per Day	54.56	72.33	72.33	45.25	44.19	44.16	17.08	16.02	16.08	16.08	9.61	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48		
Yearly Maximums	9,548	8,466	6,974	5,482	4,614	3,769	2,926	2,705	2,508	2,310	2,112	2,063	2,063	2,063	2,039	2,015	1,991	1,819	1,647	1,475	1,682	1,889	2,096	2,303	2,510	2,716	2,948	3,178	3,409	3,788	4,384	5,659	6,554	7,450	8,291			
Maximum Pounds per Day																																						
Maximum Pounds per Hour																																						
Maximum Pounds per Month																																						
Month with Maximum																																						
Maximum Pounds per Year																																						
Maximum Average Pounds per Hour																																						
Year with Maximum																																						
Tons per Year																																						

Table 5.1A.60 Onsite and Offsite
 Construction Exhaust and Fugitive
 Emissions Summary

Total Onsite and Offsite PM₁₀ Emissions (Ex)

Parameter	Total PM ₁₀ Emissions by Month																																						
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70				
Pounds per Month	1,497.85	1,866.54	1,867.83	1,234.70	1,217.81	1,213.32	581.64	560.88	566.67	574.59	328.80	289.13	314.63	312.36	304.09	302.70	302.01	300.99	296.72	284.98	285.74	280.17	278.50	256.06	242.29	194.07	203.96	202.60	0.00	0.00	0.00	418.56	420.43	431.16	432.12				
Pounds per Day	64.66	80.69	80.99	53.52	52.79	52.59	25.13	24.35	24.60	24.95	14.30	12.97	13.69	13.58	13.22	13.16	13.13	13.09	12.90	12.39	12.42	12.18	12.02	11.13	10.53	8.44	8.87	8.81	0.00	0.00	0.00	18.22	18.28	18.75	18.79				
Yearly Maximums	11,800	10,617	9,062	7,499	6,567	5,051	4,738	4,454	4,178	3,897	3,602	3,550	3,517	3,445	3,326	3,226	3,126	2,824	2,523	2,226	2,360	2,495	2,646	2,802	2,982	3,178	3,421	3,654	3,892	4,331	5,012	6,394	7,358	8,325	9,225				
Maximum Pounds per Day																																							
Maximum Pounds per Hour ^a																																							
Maximum Pounds per Month																																							
Month with Maximum																																							
Maximum Pounds per Year																																							
Maximum Average Pounds per Hour ^b																																							
Year with Maximum																																							
Tons per Year																																							

Onsite and Offsite Exhaust PM_{2.5} Emissions

Construction Step	Exhaust PM _{2.5} Emissions by Month																																						
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70				
Peaker and Tank Area and Stack 3&4 Demolition																																							
Total (lbs/month)																																							
Total (lbs/day)																																							
Units 3 & 4 Demolition																																							
Total (lbs/month)	70.04																																						
Total (lbs/day)	3.05																																						
Block 1 Construction																																							
Total (lbs/month)	48.47	45.81	42.98	43.64	37.30	37.91	35.60	34.67	43.36	42.85																													
Total (lbs/day)	2.11	1.99	1.87	1.90	1.62	1.65	1.55	1.51	1.89	1.86																													
Block 2 Construction																																							
Total (lbs/month)	33.24	83.40	85.59	65.78	74.29	64.31	57.50	58.37	59.92	65.61	59.18	61.53	72.77	70.19	62.50	61.89	61.30	60.79	55.74	47.67	46.08	43.64	40.86	35.14	31.05	20.74	30.24	29.62											
Total (lbs/day)	1.45	3.63	3.72	2.86	3.23	2.80	2.50	2.54	2.61	2.85	2.57	2.68	3.16	3.05	2.72	2.69	2.67	2.64	2.42	2.07	2.00	1.90	1.78	1.53	1.35	0.90	1.31	1.29											
Units 1 & 2 Demolition																																							
Total (lbs/month)																																							
Total (lbs/day)																																							
Bldgs. 33 & 34 Construction																																							
Total (lbs/month)																																							
Total (lbs/day)																																							

Total Onsite and Offsite Exhaust PM_{2.5} Emissions (Construction Equipment and Vehicles)

Pounds per Month	151.75	129.22	128.57	109.42	111.60	102.22	93.10	93.04	103.28	108.46	58.18	61.53	72.77	70.19	62.50	61.89	61.30	60.79	55.74	47.67	46.08	43.64	40.86	35.14	31.05	20.74	30.24	29.62	0.00	0.00	0.00	33.58	34.24	41.03	38.04					
Pounds per Day	6.69	5.62	5.59	4.76	4.85	4.44	4.05	4.05	4.49	4.72	2.57	2.68	3.16	3.05	2.72	2.69	2.67	2.64	2.42	2.07	2.00	1.90	1.78	1.53	1.35	0.90	1.31	1.29	0.00	0.00	0.00	1.46	1.49	1.78	1.65					
Yearly Maximums	1,251	1,172	1,113	1,047	1,000	949	908	871	825	768	703	685	659	617	567	535	503	442	381	325	311	299	294	297	294	300	311	331	341	353	394	447	518	556	596	627				
Maximum Pounds per Day																																								
Maximum Pounds per Hour ^a																																								
Maximum Pounds per Month																																								
Month with Maximum																																								
Maximum Pounds per Year																																								
Maximum Average Pounds per Hour ^b																																								
Year with Maximum																																								
Tons per Year																																								

Onsite and Offsite Fugitive PM_{2.5} Emissions

Construction Step	Fugitive PM _{2.5} Emissions by Month																																						
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70				
Peaker and Tank Area and Stack 3&4 Demolition																																							
Total (lbs/month)																																							
Total (lbs/day)																																							
Units 3 & 4 Demolition																																							
Total (lbs/month)	44.67																																						
Total (lbs/day)	1.94																																						
Block 1 Construction																																							
Total (lbs/month)	17.198	17.198	17.198	17.198	14.746	14.746	14.746	14.746	14.899	14.899																													
Total (lbs/day)	0.748	0.748	0.748	0.748	0.641	0.641	0.641	0.641	0.648	0.648																													
Block 2 Construction																																							
Total (lbs/month)	163.203	326.293	326.293	175.460	175.460	175.385	24.552	22.100	22.100	22.100	22.100	17.198	17.198	17.198	17.198	17.198	17.198	17.198	17.198	17.198	17.198	17.198	17.198	17.198	17.198	17.198	14.746	14.822	14.822										
Total (lbs/day)	7.098	14.187	14.187	7.629	7.629	7.625	1.067	0.961	0.961	0.961	0.961	0.748	0.7																										

Table 5.1A.60 Onsite and Offsite
 Construction Exhaust and Fugitive
 Emissions Summary

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Onsite and Offsite CO Emissions																				
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 3 & 4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 1 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 2 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 1 & 2 Demolition																				
Total (lbs/month)	1,043.79	1,050.86	1,016.20	1,016.20	1,024.47	1,024.47	1,036.88	1,036.88	1,041.01	1,045.15	1,045.15	1,045.15	1,131.84	1,131.84	1,131.84	1,112.94	1,110.38	1,079.70	1,072.03	1,060.01
Total (lbs/day)	45.38	45.89	44.18	44.18	44.54	44.54	45.08	45.08	45.26	45.44	45.44	45.44	49.21	49.21	49.21	48.39	48.28	46.94	46.81	46.09
Bldgs. 33 & 34 Construction																				
Total (lbs/month)						147.13	482.16	483.86	522.42	487.25	482.70	155.63	156.22	162.88	170.66	157.33	175.11	171.77	87.33	
Total (lbs/day)						6.40	20.96	21.04	22.71	20.32	20.12	6.77	6.79	7.08	7.42	6.84	7.61	7.47	3.80	
Total Onsite and Offsite CO Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	1,043.79	1,050.86	1,016.20	1,016.20	1,024.47	1,024.47	1,184.01	1,519.04	1,524.87	1,567.56	1,512.39	1,507.84	1,287.47	1,288.06	1,294.72	1,283.60	1,267.71	1,254.81	1,243.80	1,147.34
Pounds per Day	45.38	45.89	44.18	44.18	44.54	44.54	51.48	66.05	66.30	68.15	65.76	65.56	55.98	56.00	56.29	55.81	55.12	54.56	54.08	49.88
Yearly Maximums	14,992	15,235	15,473	15,751	16,019	16,262	18,492	16,552	16,189											
Maximum Pounds per Day																				
Maximum Pounds per Hour ^a																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour ^b																				
Year with Maximum																				
Tons per Year																				

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Onsite and Offsite VOC Emissions																				
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 3 & 4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 1 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 2 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 1 & 2 Demolition																				
Total (lbs/month)	142.08	142.19	132.33	132.33	133.67	133.67	135.69	135.69	136.36	137.04	137.04	137.04	154.63	154.63	154.63	151.91	151.66	149.96	149.24	148.62
Total (lbs/day)	6.18	6.18	5.75	5.75	5.81	5.81	5.90	5.90	5.93	5.96	5.96	5.96	6.72	6.72	6.72	6.60	6.59	6.52	6.49	6.46
Bldgs. 33 & 34 Construction																				
Total (lbs/month)						14.37	57.30	57.25	67.61	61.18	59.96	18.11	18.04	18.15	18.27	18.06	18.34	18.28	16.97	
Total (lbs/day)						0.62	2.49	2.49	2.94	2.66	2.61	0.79	0.78	0.79	0.79	0.79	0.80	0.79	0.74	
Total Onsite and Offsite VOC Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	142.08	142.19	132.33	132.33	133.67	133.67	150.06	193.00	193.62	204.65	198.21	196.99	172.74	172.67	172.78	170.17	168.72	168.30	167.52	165.59
Pounds per Day	6.18	6.18	5.75	5.75	5.81	5.81	6.52	8.39	8.42	8.90	8.62	8.56	7.51	7.51	7.51	7.40	7.38	7.32	7.28	7.20
Yearly Maximums	1,953	1,983	2,014	2,054	2,092	2,128	2,163	2,180	2,153											
Maximum Pounds per Day																				
Maximum Pounds per Hour ^a																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour ^b																				
Year with Maximum																				
Tons per Year																				

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Onsite and Offsite NOx Emissions																				
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 3 & 4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 1 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 2 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 1 & 2 Demolition																				
Total (lbs/month)	779.63	780.22	723.30	723.30	741.38	741.38	788.51	788.51	777.56	786.60	786.60	712.80	809.51	809.51	809.51	775.75	772.63	749.14	739.78	731.51
Total (lbs/day)	33.90	33.92	31.45	31.45	32.23	32.23	33.41	33.41	33.81	34.20	34.20	30.99	36.20	36.20	36.20	33.73	33.59	32.57	32.16	31.80
Bldgs. 33 & 34 Construction																				
Total (lbs/month)						93.74	362.67	361.66	433.45	393.10	366.75	122.03	121.35	123.55	126.13	121.72	127.60	126.49	98.57	
Total (lbs/day)						4.08	15.77	15.72	18.65	17.09	15.51	5.31	5.28	5.37	5.48	5.29	5.55	5.50	4.29	
Total Onsite and Offsite NOx Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	779.63	780.22	723.30	723.30	741.38	741.38	862.26	1,131.18	1,139.22	1,220.05	1,179.70	1,069.54	931.54	930.86	933.06	901.88	894.35	876.74	866.28	830.08
Pounds per Day	33.90	33.92	31.45	31.45	32.23	32.23	37.49	49.18	49.53	53.05	51.29	46.50	40.50	40.47	40.57	39.21	38.88	38.12	37.66	36.09
Yearly Maximums	11,091	11,243	11,394	11,603	11,762	11,935	12,070	12,074	11,773											
Maximum Pounds per Day																				
Maximum Pounds per Hour ^a																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour ^b																				
Year with Maximum																				
Tons per Year																				

Table 5.1A.60 Onsite and Offsite
 Construction Exhaust and Fugitive
 Emissions Summary

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 3 & 4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 1 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 2 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 1 & 2 Demolition																				
Total (lbs/month)	2,6239	2,6452	2,5084	2,5084	2,6027	2,6027	2,7442	2,7442	2,7913	2,8385	2,8385	2,8385	3,0940	3,0940	3,0940	2,8982	2,8789	2,7170	2,6502	2,6024
Total (lbs/day)	0.1141	0.1150	0.1091	0.1091	0.1132	0.1132	0.1193	0.1193	0.1214	0.1234	0.1234	0.1234	0.1345	0.1345	0.1345	0.1260	0.1252	0.1181	0.1156	0.1131
Bldgs. 33 & 34 Construction																				
Total (lbs/month)							0.3071	0.9476	0.9484	1.1567	1.0943	1.0107	0.4882	0.4854	0.5068	0.5317	0.4890	0.5460	0.5353	0.2647
Total (lbs/day)							0.0134	0.0412	0.0412	0.0503	0.0476	0.0439	0.0212	0.0211	0.0220	0.0231	0.0213	0.0237	0.0233	0.0115
Total Onsite and Offsite SOx Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	2,6239	2,6452	2,5084	2,5084	2,6027	2,6027	3,0513	3,6918	3,7398	3,9952	3,9328	3,8492	3,5821	3,5794	3,6008	3,4299	3,3679	3,2630	3,1944	2,8671
Pounds per Day	0.1141	0.1150	0.1091	0.1091	0.1132	0.1132	0.1327	0.1605	0.1626	0.1737	0.1710	0.1674	0.1557	0.1556	0.1566	0.1491	0.1464	0.1419	0.1389	0.1247
Yearly Maximums	38	39	40	41	42	42	43	43	42											
Maximum Pounds per Day																				
Maximum Pounds per Hour ^a																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour ^b																				
Year with Maximum																				
Tons per Year																				

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 3 & 4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 1 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 2 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 1 & 2 Demolition																				
Total (lbs/month)	57.61	59.80	58.25	58.25	61.14	61.14	65.48	65.48	66.93	69.37	68.37	63.67	67.92	67.92	67.92	61.49	60.65	50.87	48.35	44.59
Total (lbs/day)	2.50	2.60	2.53	2.53	2.66	2.66	2.85	2.85	2.91	2.97	2.97	2.77	2.95	2.95	2.95	2.67	2.64	2.21	2.10	1.94
Bldgs. 33 & 34 Construction																				
Total (lbs/month)							18.81	41.38	41.92	45.15	42.67	38.41	26.90	27.07	29.26	31.82	27.44	33.28	32.18	4.43
Total (lbs/day)							0.82	1.80	1.82	1.96	1.86	1.67	1.17	1.18	1.27	1.38	1.19	1.45	1.40	0.19
Total Onsite and Offsite Exhaust PM₁₀ Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	57.61	59.80	58.25	58.25	61.14	61.14	84.29	106.86	108.84	113.53	111.05	102.09	94.81	94.99	97.18	83.31	88.09	84.15	80.53	49.01
Pounds per Day	2.50	2.60	2.53	2.53	2.66	2.66	3.66	4.45	4.73	4.94	4.83	4.44	4.12	4.13	4.23	4.06	3.83	3.68	3.50	2.13
Yearly Maximums	983	1,020	1,055	1,094	1,129	1,156	1,179	1,175	1,118											
Maximum Pounds per Day																				
Maximum Pounds per Hour ^a																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour ^b																				
Year with Maximum																				
Tons per Year																				

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 3 & 4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 1 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 2 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 1 & 2 Demolition																				
Total (lbs/month)	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77	378.77
Total (lbs/day)	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47	16.47
Bldgs. 33 & 34 Construction																				
Total (lbs/month)							217.90	895.56	895.56	895.56	841.08	841.08	217.90	217.90	217.90	217.90	217.90	217.90	217.90	217.90
Total (lbs/day)							9.47	38.94	38.94	38.94	36.57	36.57	9.47	9.47	9.47	9.47	9.47	9.47	9.47	9.47
Total Onsite and Offsite Fugitive PM₁₀ Emissions (Disassembly, Debris Loading, Grading, Bulldozing, and Onsite Construction Vehicles)																				
Pounds per Month	378.77	378.77	378.77	378.77	378.77	378.77	378.77	596.67	1,274.33	1,274.33	1,219.85	1,219.85	596.67	596.67	596.67	596.67	596.67	596.67	596.67	596.67
Pounds per Day	16.47	16.47	16.47	16.47	16.47	16.47	16.47	25.94	55.41	55.41	53.04	53.04	25.94	25.94	25.94	25.94	25.94	25.94	25.94	25.94
Yearly Maximums	9,132	9,350	9,568	9,786	10,004	10,221	10,439	10,439	9,762											
Maximum Pounds per Day																				
Maximum Pounds per Hour ^a																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour ^b																				
Year with Maximum																				
Tons per Year																				

Table 5.1A.60 Onsite and Offsite
 Construction Exhaust and Fugitive
 Emissions Summary

Total Onsite and Offsite PM₁₀ Emissions (Ex)

Parameter	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Pounds per Month	436.38	438.57	437.02	437.02	439.91	439.91	680.96	1,381.19	1,383.17	1,387.85	1,330.90	1,321.94	691.48	691.66	693.85	689.98	684.76	680.82	677.20	645.68
Pounds per Day	18.97	19.07	19.00	19.00	19.13	19.13	29.61	60.05	60.14	60.34	57.87	57.48	30.06	30.07	30.17	30.00	29.77	29.60	29.44	28.07
Yearly Maximums	10,115	10,370	10,623	10,880	11,133	11,378	11,619	11,615	10,879											
Maximum Pounds per Day																				
Maximum Pounds per Hour ^a																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour ^b																				
Year with Maximum																				
Tons per Year																				

Onsite and Offsite Exhaust PM_{2.5} Emissions

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 3 & 4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 1 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 2 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 1 & 2 Demolition																				
Total (lbs/month)	41.52	42.13	40.29	40.29	41.57	41.57	43.48	43.48	44.12	44.76	44.76	40.09	44.33	44.33	44.33	41.66	41.35	38.17	37.25	36.06
Total (lbs/day)	1.81	1.83	1.75	1.75	1.81	1.81	1.89	1.89	1.92	1.95	1.95	1.74	1.93	1.93	1.93	1.81	1.80	1.66	1.62	1.57
Bldgs. 33 & 34 Construction																				
Total (lbs/month)							9.27	27.23	27.36	30.05	27.45	24.01	10.66	10.68	11.30	12.01	10.79	12.42	12.12	4.34
Total (lbs/day)							0.40	1.18	1.19	1.31	1.19	1.04	0.46	0.46	0.49	0.52	0.47	0.54	0.53	0.19
Total Onsite and Offsite Exhaust PM_{2.5} Emissions (Construction Equipment and Vehicles)																				
Pounds per Month	41.52	42.13	40.29	40.29	41.57	41.57	52.75	70.72	71.47	74.81	72.21	64.10	55.00	55.02	55.63	53.67	52.13	50.59	48.36	46.41
Pounds per Day	1.81	1.83	1.75	1.75	1.81	1.81	2.29	3.07	3.11	3.25	3.14	2.79	2.39	2.39	2.42	2.33	2.27	2.20	2.15	1.76
Yearly Maximums	653	667	680	695	709	719	728	725	694											
Maximum Pounds per Day																				
Maximum Pounds per Hour ^a																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour ^b																				
Year with Maximum																				
Tons per Year																				

Onsite and Offsite Fugitive PM_{2.5} Emissions

Construction Step	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Peaker and Tank Area and Stack 3&4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 3 & 4 Demolition																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 1 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Block 2 Construction																				
Total (lbs/month)																				
Total (lbs/day)																				
Units 1 & 2 Demolition																				
Total (lbs/month)	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053	51.053
Total (lbs/day)	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220
Bldgs. 33 & 34 Construction																				
Total (lbs/month)							21.790	178.125	178.125	178.125	172.678	172.678	21.790	21.790	21.790	21.790	21.790	21.790	21.790	21.790
Total (lbs/day)							0.947	7.745	7.745	7.745	7.508	7.508	0.947	0.947	0.947	0.947	0.947	0.947	0.947	0.947
Total Onsite and Offsite Fugitive PM_{2.5} Emissions (Disassembly, Debris Loading, Grading, Bulldozing, and Onsite Construction Vehicles)																				
Pounds per Month	51.05	51.05	51.05	51.05	51.05	51.05	72.84	228.18	228.18	228.18	223.73	223.73	72.84	72.84	72.84	72.84	72.84	72.84	72.84	72.84
Pounds per Day	2.22	2.22	2.22	2.22	2.22	2.22	3.17	9.96	9.96	9.96	9.73	9.73	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17
Yearly Maximums	1,514	1,536	1,558	1,580	1,601	1,623	1,645	1,645	1,489											
Maximum Pounds per Day																				
Maximum Pounds per Hour ^a																				
Maximum Pounds per Month																				
Month with Maximum																				
Maximum Pounds per Year																				
Maximum Average Pounds per Hour ^b																				
Year with Maximum																				
Tons per Year																				

**Attachment WSQ2-4
Dispersion Modeling Information for Construction of
HBEP and Demolition of Units 3 and 4**

Huntington Beach Energy Project
Attachment WSQ2-4 Table 1
Construction of HBEP and Demolition of Units 3 and 4 Source Parameters for AERMOD Input
March 2013

Point Sources									
Source ID	Stack Release		Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
	Type (Beta)								
E01	Horizontal		409329	3723184	3.66	4.60	533	18.0	0.127
E02	Horizontal		409345	3723173	3.66	4.60	533	18.0	0.127
E03	Horizontal		409362	3723161	3.66	4.60	533	18.0	0.127
E04	Horizontal		409378	3723150	3.66	4.60	533	18.0	0.127
E05	Horizontal		409341	3723203	3.66	4.60	533	18.0	0.127
E06	Horizontal		409358	3723191	3.66	4.60	533	18.0	0.127
E07	Horizontal		409374	3723180	3.66	4.60	533	18.0	0.127
E08	Horizontal		409391	3723168	3.66	4.60	533	18.0	0.127
E09	Horizontal		409354	3723222	3.66	4.60	533	18.0	0.127
E10	Horizontal		409371	3723210	3.66	4.60	533	18.0	0.127
E11	Horizontal		409387	3723199	3.66	4.60	533	18.0	0.127
E12	Horizontal		409404	3723187	3.66	4.60	533	18.0	0.127
E13	Horizontal		409395	3723138	3.66	4.60	533	18.0	0.127
E14	Horizontal		409412	3723126	3.66	4.60	533	18.0	0.127
E15	Horizontal		409428	3723115	3.66	4.60	533	18.0	0.127
E16	Horizontal		409445	3723103	3.66	4.60	533	18.0	0.127
E17	Horizontal		409408	3723157	3.66	4.60	533	18.0	0.127
E18	Horizontal		409424	3723145	3.66	4.60	533	18.0	0.127
E19	Horizontal		409441	3723133	3.66	4.60	533	18.0	0.127
E20	Horizontal		409457	3723122	3.66	4.60	533	18.0	0.127
E21	Horizontal		409420	3723175	3.66	4.60	533	18.0	0.127
E22	Horizontal		409437	3723164	3.66	4.60	533	18.0	0.127
E23	Horizontal		409454	3723152	3.66	4.60	533	18.0	0.127
E24	Horizontal		409470	3723141	3.66	4.60	533	18.0	0.127
E25	Horizontal		409487	3723129	3.66	4.60	533	18.0	0.127
E26	Horizontal		409469	3723294	3.66	4.60	533	18.0	0.127
E27	Horizontal		409469	3723276	3.66	4.60	533	18.0	0.127
E28	Horizontal		409469	3723257	3.66	4.60	533	18.0	0.127
E29	Horizontal		409469	3723239	3.66	4.60	533	18.0	0.127
E30	Horizontal		409469	3723221	3.66	4.60	533	18.0	0.127
E31	Horizontal		409469	3723202	3.66	4.60	533	18.0	0.127
E32	Horizontal		409469	3723184	3.66	4.60	533	18.0	0.127
E33	Horizontal		409469	3723166	3.66	4.60	533	18.0	0.127
E34	Horizontal		409488	3723294	3.66	4.60	533	18.0	0.127
E35	Horizontal		409488	3723276	3.66	4.60	533	18.0	0.127
E36	Horizontal		409488	3723257	3.66	4.60	533	18.0	0.127
E37	Horizontal		409488	3723239	3.66	4.60	533	18.0	0.127
E38	Horizontal		409489	3723221	3.66	4.60	533	18.0	0.127
E39	Horizontal		409489	3723203	3.66	4.60	533	18.0	0.127
E40	Horizontal		409489	3723184	3.66	4.60	533	18.0	0.127
E41	Horizontal		409489	3723166	3.66	4.60	533	18.0	0.127
E42	Horizontal		409489	3723148	3.66	4.60	533	18.0	0.127
E43	Horizontal		409508	3723294	3.66	4.60	533	18.0	0.127
E44	Horizontal		409508	3723276	3.66	4.60	533	18.0	0.127
E45	Horizontal		409508	3723258	3.66	4.60	533	18.0	0.127
E46	Horizontal		409508	3723239	3.66	4.60	533	18.0	0.127
E47	Horizontal		409508	3723221	3.66	4.60	533	18.0	0.127
E48	Horizontal		409508	3723203	3.66	4.60	533	18.0	0.127
E49	Horizontal		409508	3723184	3.66	4.60	533	18.0	0.127
E50	Horizontal		409508	3723166	3.66	4.60	533	18.0	0.127
E51	Horizontal		409508	3723148	3.66	4.60	533	18.0	0.127
E52	Horizontal		409527	3723294	3.66	4.60	533	18.0	0.127
E53	Horizontal		409527	3723276	3.66	4.60	533	18.0	0.127
E54	Horizontal		409527	3723258	3.66	4.60	533	18.0	0.127
E55	Horizontal		409527	3723239	3.66	4.60	533	18.0	0.127
E56	Horizontal		409528	3723221	3.66	4.60	533	18.0	0.127
E57	Horizontal		409528	3723203	3.66	4.60	533	18.0	0.127
E58	Horizontal		409528	3723185	3.66	4.60	533	18.0	0.127
E59	Horizontal		409528	3723166	3.66	4.60	533	18.0	0.13
E60	Horizontal		409528	3723148	3.66	4.60	533	18.0	0.13
E61	Horizontal		409547	3723295	3.66	4.60	533	18.0	0.13
E62	Horizontal		409547	3723276	3.66	4.60	533	18.0	0.13
E63	Horizontal		409547	3723258	3.66	4.60	533	18.0	0.13
E64	Horizontal		409547	3723240	3.66	4.60	533	18.0	0.13
E65	Horizontal		409547	3723221	3.66	4.60	533	18.0	0.13
E66	Horizontal		409547	3723203	3.66	4.60	533	18.0	0.13
E67	Horizontal		409547	3723185	3.66	4.60	533	18.0	0.13
E68	Horizontal		409547	3723166	3.66	4.60	533	18.0	0.13
E69	Horizontal		409547	3723148	3.66	4.60	533	18.0	0.13
E70	Horizontal		409509	3723130	3.66	4.60	533	18.0	0.13
W01	Horizontal		409086	3723188	3.66	4.60	533	18.0	0.127
W02	Horizontal		409103	3723177	3.66	4.60	533	18.0	0.127
W03	Horizontal		409120	3723165	3.66	4.60	533	18.0	0.127
W04	Horizontal		409136	3723153	3.66	4.60	533	18.0	0.127
W05	Horizontal		409153	3723142	3.66	4.60	533	18.0	0.127
W06	Horizontal		409169	3723130	3.66	4.60	533	18.0	0.127
W07	Horizontal		409186	3723119	3.66	4.60	533	18.0	0.127
W08	Horizontal		409203	3723107	3.66	4.60	533	18.0	0.127
W09	Horizontal		409099	3723207	3.66	4.60	533	18.0	0.127
W10	Horizontal		409116	3723195	3.66	4.60	533	18.0	0.127
W11	Horizontal		409132	3723184	3.66	4.60	533	18.0	0.127

Huntington Beach Energy Project
Attachment WSQ-4 Table 1
Construction of HBEP and Demolition of Units 3 and 4 Source Parameters for AERMOD Input
March 2013

Point Sources									
Source ID	Stack Release		Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
	Type (Beta)								
W12	Horizontal		409149	3723172	3.66	4.60	533	18.0	0.127
W13	Horizontal		409165	3723160	3.66	4.60	533	18.0	0.127
W14	Horizontal		409182	3723149	3.66	4.60	533	18.0	0.127
W15	Horizontal		409199	3723137	3.66	4.60	533	18.0	0.127
W16	Horizontal		409215	3723126	3.66	4.60	533	18.0	0.127
W17	Horizontal		409112	3723226	3.66	4.60	533	18.0	0.127
W18	Horizontal		409128	3723214	3.66	4.60	533	18.0	0.127
W19	Horizontal		409145	3723202	3.66	4.60	533	18.0	0.127
W20	Horizontal		409162	3723191	3.66	4.60	533	18.0	0.127
W21	Horizontal		409178	3723179	3.66	4.60	533	18.0	0.127
W22	Horizontal		409195	3723168	3.66	4.60	533	18.0	0.127
W23	Horizontal		409211	3723156	3.66	4.60	533	18.0	0.127
W24	Horizontal		409228	3723144	3.66	4.60	533	18.0	0.127
W25	Horizontal		409124	3723244	3.66	4.60	533	18.0	0.127
W26	Horizontal		409141	3723233	3.66	4.60	533	18.0	0.127
W27	Horizontal		409158	3723221	3.66	4.60	533	18.0	0.127
W28	Horizontal		409174	3723209	3.66	4.60	533	18.0	0.127
W29	Horizontal		409191	3723198	3.66	4.60	533	18.0	0.127
W30	Horizontal		409207	3723186	3.66	4.60	533	18.0	0.127
W31	Horizontal		409224	3723175	3.66	4.60	533	18.0	0.127
W32	Horizontal		409241	3723163	3.66	4.60	533	18.0	0.127
W33	Horizontal		409137	3723263	3.66	4.60	533	18.0	0.127
W34	Horizontal		409154	3723251	3.66	4.60	533	18.0	0.127
W35	Horizontal		409170	3723240	3.66	4.60	533	18.0	0.127
W36	Horizontal		409187	3723228	3.66	4.60	533	18.0	0.127
W37	Horizontal		409204	3723217	3.66	4.60	533	18.0	0.127
W38	Horizontal		409220	3723205	3.66	4.60	533	18.0	0.127
W39	Horizontal		409237	3723193	3.66	4.60	533	18.0	0.127
W40	Horizontal		409253	3723182	3.66	4.60	533	18.0	0.127
W41	Horizontal		409150	3723282	3.66	4.60	533	18.0	0.127
W42	Horizontal		409166	3723270	3.66	4.60	533	18.0	0.127
W43	Horizontal		409183	3723258	3.66	4.60	533	18.0	0.127
W44	Horizontal		409200	3723247	3.66	4.60	533	18.0	0.127
W45	Horizontal		409216	3723235	3.66	4.60	533	18.0	0.127
W46	Horizontal		409233	3723224	3.66	4.60	533	18.0	0.127
W47	Horizontal		409249	3723212	3.66	4.60	533	18.0	0.127
W48	Horizontal		409266	3723200	3.66	4.60	533	18.0	0.127
W49	Horizontal		409163	3723300	3.66	4.60	533	18.0	0.127
W50	Horizontal		409179	3723289	3.66	4.60	533	18.0	0.127
W51	Horizontal		409196	3723277	3.66	4.60	533	18.0	0.127
W52	Horizontal		409212	3723266	3.66	4.60	533	18.0	0.127
W53	Horizontal		409229	3723254	3.66	4.60	533	18.0	0.127
W54	Horizontal		409246	3723242	3.66	4.60	533	18.0	0.127
W55	Horizontal		409262	3723231	3.66	4.60	533	18.0	0.127
W56	Horizontal		409279	3723219	3.66	4.60	533	18.0	0.127
W57	Horizontal		409175	3723319	3.66	4.60	533	18.0	0.127
W58	Horizontal		409192	3723307	3.66	4.60	533	18.0	0.127
W59	Horizontal		409208	3723296	3.66	4.60	533	18.0	0.127
W60	Horizontal		409225	3723284	3.66	4.60	533	18.0	0.127
W61	Horizontal		409242	3723273	3.66	4.60	533	18.0	0.127
W62	Horizontal		409258	3723261	3.66	4.60	533	18.0	0.127
W63	Horizontal		409275	3723249	3.66	4.60	533	18.0	0.127
W64	Horizontal		409291	3723238	3.66	4.60	533	18.0	0.127
W65	Horizontal		409188	3723338	3.66	4.60	533	18.0	0.127
W66	Horizontal		409205	3723326	3.66	4.60	533	18.0	0.127
W67	Horizontal		409221	3723315	3.66	4.60	533	18.0	0.127
W68	Horizontal		409238	3723303	3.66	4.60	533	18.0	0.127
W69	Horizontal		409254	3723291	3.66	4.60	533	18.0	0.127
W70	Horizontal		409271	3723280	3.66	4.60	533	18.0	0.127
W71	Horizontal		409288	3723268	3.66	4.60	533	18.0	0.127
W72	Horizontal		409304	3723257	3.66	4.60	533	18.0	0.127

Area Sources								
Source ID	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Release Height (m)	Easterly Length (m)	Northerly Length (m)	Angle from North	Vertical Dimension (m)
FUGW	409066	3723183	3.7	1.0	165	215	35	0.93

Area Poly Sources												
Source ID	Base Elevation (m)	Release Height (m)	Number of Vertices	Vertical Dimension (m)	Easting (X1) (m)	Northing (Y1) (m)	Easting (X2) (m)	Northing (Y2) (m)	Easting (X3) (m)	Northing (Y3) (m)	Easting (X4) (m)	Northing (Y4) (m)
	3.66	1.00	9.0	0.93	409452	3723309	409563	3723310	409565	3723115	409537	3723136
FUGE	Easting (X5) (m)	Northing (Y5) (m)	Easting (X6) (m)	Northing (Y6) (m)	Easting (X7) (m)	Northing (Y7) (m)	Easting (X8) (m)	Northing (Y8) (m)	Easting (X9) (m)	Northing (Y9) (m)		
	409449.06	3723088.78	409315.11	3723180.26	409358.4	3723244.58	409372	3723242	409453	3723187		

Huntington Beach Energy Project
 Attachment WSQ2-4 Table 2
 Construction of HBEP and Demolition of Units 3 and 4 Modeling Parameters - Emission Rates
 March 2013

Emission Rates for 1-hr, 3-hr, 8-hr, and 24-hr Modeling ^{a,b}

Source ID	1-hr NO ₂		1-hr CO		8-hr CO		1-hr SO ₂		3-hr SO ₂		24-hr SO ₂		24-hr PM ₁₀		24-hr PM _{2.5}	
	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)
E(1-70)	0.82	6.47	0.20	1.55	0.20	1.55	5.36E-04	4.25E-03	5.36E-04	4.25E-03	2.23E-04	1.77E-03	0.023	0.18	0.010	0.079
FUGE	-	-	-	-	-	-	-	-	-	-	-	-	0.34	2.70	0.074	0.59
W(1-72)	0.49	3.86	0.83	6.56	0.83	6.56	1.78E-03	1.41E-02	1.78E-03	1.41E-02	7.42E-04	5.89E-03	0.004	0.033	0.004	0.032
FUGW	-	-	-	-	-	-	-	-	-	-	-	-	0.071	0.565	0.010	0.076
Maximum Month	19		36		36		36		36		36		16		16	

Emission Rates for Annual Modeling ^{a,b}

Source ID	Annual NO ₂		Annual PM ₁₀		Annual PM _{2.5}	
	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)
W(1-72)	0.18	1.46	0.014	0.11	0.013	0.10
FUGW	-	-	0.11	0.87	0.020	0.16
W(1-72)	0.19	1.47	0.0051	0.041	0.0069	0.054
FUGW	-	-	0.055	0.44	0.0075	0.060
Maximum Months	18-29		10-21		13-24	

^a Emission rates for construction exhaust point sources, W(1-72) and E(1-70) source groups, are presented as the sum total for all sources in each respective group.

^b Units 3 and 4 demolition emissions, as well as construction emissions that overlap in time with the demolition of Units 3 and 4, were obtained from Table 5.1A.58 of Attachment WSQ2-3.

Huntington Beach Energy Project
 Attachment WSQ2-4 Table 3
 Construction of HBEP and Demolition of Units 3 and 4 Modeling Results
 March 2013

Source	Year	NO ₂ (µg/m ³)		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
		1-hr ^a	Annual ^b	1-hr	8-hr	1-hr	3-hr	24-hr	24-hr	Annual	24-hr	Annual
ALL		107	7.50	124	88.4	0.28	0.23	0.054	237	49.1	52.6	9.16
CONSTRUCTION	2005	87.5	5.00	28.7	18.3	0.078	0.070	0.016	235	47.6	52.0	8.86
DEMOLITION		54.0	4.95	115	83.3	0.25	0.22	0.051	0.28	0.18	0.28	0.24
ALL		106	7.47	123	87.2	0.28	0.24	0.054	210	49.2	46.5	9.19
CONSTRUCTION	2006	90.6	5.04	28.9	20.2	0.079	0.066	0.015	210	47.6	46.5	8.86
DEMOLITION		53.6	4.99	114	84.6	0.25	0.21	0.052	0.29	0.18	0.29	0.25
ALL		111	7.35	124	100.7	0.28	0.23	0.065	226	46.6	49.9	8.69
CONSTRUCTION	2007	88.3	4.80	28.5	19.4	0.078	0.065	0.013	223	44.9	49.4	8.36
DEMOLITION		54.4	4.76	117	91.9	0.25	0.21	0.057	0.32	0.18	0.32	0.23

^a The maximum 1-hour NO₂ concentration includes an ambient NO₂ ratio of 0.80 and an in-stack NO₂ to NO_x ratio of 0.20 for construction sources and 0.50 for operational sources.

^b The maximum annual NO₂ concentration includes an ambient NO₂ ratio of 0.75.



**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
HUNTINGTON BEACH ENERGY PROJECT**

**Docket No. 12-AFC-02
PROOF OF SERVICE
(Revised 03/07/2013)**

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DECLARATION OF SERVICE

I, Judith M. Warmuth, declare that on March 14, 2013, I served and filed copies of the attached Applicant's Responses to Staff's Workshop Queries and Related Air Quality Modeling Files dated March 14, 2013. This document is accompanied by the most recent Proof of Service, which I copied from the web page for this project at: http://www.energy.ca.gov/sitingcases/huntington_beach_energy/index.html.

The document has been sent to the other parties on the Service List above in the following manner:


(Check one)

For service to all other parties and filing with the Docket Unit at the Energy Commission:

- I e-mailed the document to all e-mail addresses on the Service List above and personally delivered it or deposited it in the US mail with first class postage to those parties noted above as "hard copy required"; **OR**
- Instead of e-mailing the document, I personally delivered it or deposited it in the US mail with first class postage to all of the persons on the Service List for whom a mailing address is given.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.

Dated: March 14, 2013



Judith M. Warmuth



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
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**APPLICATION FOR CERTIFICATION FOR THE
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*Indicates change

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Patrick Saxton
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Galen Lemei
Adviser to Commissioner Douglas

Jennifer Nelson
Adviser to Commissioner Douglas

Eileen Allen
Commissioners' Technical
Adviser for Facility Siting

DECLARATION OF SERVICE

I, Judith M. Warmuth, declare that on March 14, 2013, I served and filed copies of the attached Applicant's Responses to Staff's Workshop Queries and Related Air Quality Modeling Files dated March 14, 2013. This document is accompanied by the most recent Proof of Service, which I copied from the web page for this project at: http://www.energy.ca.gov/sitingcases/huntington_beach_energy/index.html.

The document has been sent to the other parties on the Service List above in the following manner:


(Check one)

For service to all other parties and filing with the Docket Unit at the Energy Commission:

- I e-mailed the document to all e-mail addresses on the Service List above and personally delivered it or deposited it in the US mail with first class postage to those parties noted above as "hard copy required"; **OR**
- Instead of e-mailing the document, I personally delivered it or deposited it in the US mail with first class postage to all of the persons on the Service List for whom a mailing address is given.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.

Dated: March 14, 2013



Judith M. Warmuth