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August 6, 2014

Jillian Baker, Ph.D.
Air Quality Specialist
South Coast Air Quality Management District
21865 Copley Drive
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Subject: Revised Air Quality Impacts Assessment for Alamitos Energy Center: Modeling Addendum (Facility ID 115394)

Dear Ms. Baker:

AES Southland Development, LLC (AES) is submitting this letter in response to the South Coast Air Quality Management District's (SCAQMD) June 27, 2014 request to conduct additional air dispersion modeling for the Alamitos Energy Center (AEC) project to determine air quality impacts in the vicinity of the Rosie the Riveter Charter High School, which is located within the AEC fenceline. This letter presents AES's response to the request.

After AES submitted its air permit application, the SCAQMD and U.S. Environmental Protection Agency (EPA) Region 9 have stated that the area within the AEC fenceline occupied by the Rosie the Riveter Charter High School should be considered ambient air for the purposes of air quality. Therefore, AES prepared an addendum to the commissioning and operational dispersion modeling submitted in AES's air permit application based on the revised fenceline proposed by SCAQMD staff. The revised fenceline is shown in Figure 1.

The receptor grid presented in the modeling addendum uses the same fenceline and nested receptor grid spacing as in the air permit application: fenceline receptors are spaced at 30-meter intervals and gridded receptors are spaced at 50-meter intervals from the property boundary to 500 meters from the fenceline. The revisions to the fenceline added 13 receptors to the existing receptor grid. Consistent with your suggestion, the modeling addendum only predicts impacts at these new receptors.

In May 2014, EPA released an update to both the AERMOD (version 14134) and AERMET (version 14134) modeling systems. However, to maintain consistency with the dispersion modeling submitted in the air permit application, the modeling addendum was prepared using version 12345 of both AERMOD and AERMET. Additionally, based on some preliminary comparisons, modeling with AERMOD (version 14134) would have a negligible impact on the results modeled with AERMOD (version 12345).

The following sections discuss the results of the additional commissioning and operational dispersion modeling. Please refer to Attachment A1 for additional details or the modeling files, which are included with this submission on compact disc.

Figure 1: Revised AEC Fenceline



Commissioning Impacts Analysis. Table 1 presents a comparison of the maximum AEC commissioning impacts from Table 5.1-28 of the air permit application to the maximum modeled commissioning impacts from the modeling addendum. For all pollutants and averaging times, the maximum modeled concentrations from the modeling addendum are less than those of the air permit application modeling analysis. Therefore, the revision to the AEC fence line will not result in greater impacts than the commissioning impacts presented in the air permit application.

TABLE 1

Turbine Commissioning Impacts Analysis—Maximum Modeled Addendum Impacts Compared to Maximum Modeled Air Permit Application Impacts

Pollutant	Averaging Time	Maximum Modeled Application Impact ($\mu\text{g}/\text{m}^3$)	Maximum Modeled Addendum Impact ($\mu\text{g}/\text{m}^3$)
NO ₂ ^{a, b}	1-hour ^c	294	263
	Annual	0.33	0.24
CO ^b	1-hour	7,213	3,763
	8-hour	2,326	1,715
SO ₂ ^d	1-hour	4.32	3.35
	3-hour	3.35	2.68
	24-hour	1.20	1.05
PM ₁₀ ^d	24-hour	2.61	2.23
	Annual	0.16	0.12
PM _{2.5} ^d	24-hour	2.61	2.23
	Annual	0.16	0.12

$\mu\text{g}/\text{m}^3$ = microgram(s) per cubic meter

CO = carbon monoxide

NO₂ = nitrogen dioxide

PM₁₀ = particulate matter with aerodynamic equivalent diameter less than or equal to 10 microns

PM_{2.5} = particulate matter with aerodynamic equivalent diameter less than or equal to 2.5 microns

SO₂ = sulfur dioxide

^a The maximum 1-hour and annual NO₂ concentrations include an ambient NO₂ ratio of 0.80 (EPA, 2011)¹ and 0.75 (EPA, 2005),² respectively. The maximum 1-hour NO₂ concentrations are paired with the 3-year maximum seasonal background concentrations according to EPA Detailed Air Quality System Data for the Long Beach monitoring station (EPA, 2013).³

^b The short-term NO₂ and CO impacts occurred during the 50 percent load scenario.

^c The maximum 1-hour NO₂ concentration is based on commissioning of only one combustion turbine at the highest unabated emissions rate.

^d The short-term SO₂, PM₁₀, and PM_{2.5} impacts from Table 2 have been included for comparison, since commissioning emission rates of these pollutants are expected to be equal to or lower than operating emission rates.

¹ 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*. EPA Office of Air Quality Planning and Standards. March 1.

² U.S. Environmental Protection Agency (EPA). 2005. *Guideline on Air Quality Models*, 40 CFR 51, Appendix W. November.

³ U.S. Environmental Protection Agency (EPA). 2013. *Download Detailed AQS Data*. Available online at: <http://www.epa.gov/ttn/airs/airsaqs/detaildata/downloadaqsddata.htm>. Accessed August 2013.

Operation Impacts Analysis. Table 2 presents a comparison of the maximum AEC operation impacts from Table 5.1-29 of the air permit application to the maximum modeled operation impacts from the modeling addendum. For all pollutants and averaging times, the maximum modeled concentrations from the modeling addendum are less than those of the air permit application modeling analysis. Therefore, the revision to the AEC fenceline will not result in greater impacts than the operation impacts presented in the air permit application.

TABLE 2
Turbine Operation Impacts Analysis—Maximum Modeled Addendum Impacts Compared to Maximum Modeled Air Permit Application Impacts

Pollutant	Averaging Time	Maximum Modeled Application Impact ($\mu\text{g}/\text{m}^3$)	Maximum Modeled Addendum Impact ($\mu\text{g}/\text{m}^3$)
NO ₂ ^a	1-hour	38.5	32.5
	Federal 1-hour	38.5	32.5
	Annual	0.26	0.19
SO ₂	1-hour	4.32	3.35
	Federal 1-hour	4.32	3.35
	3-hour	3.35	2.68
	24-hour	1.20	1.05
CO	1-hour	215	182
	8-hour	65.2	54.8
PM ₁₀	24-hour	2.61	2.23
	Annual	0.16	0.11
PM _{2.5}	24-hour	2.61	2.23
	Annual	0.16	0.11

^a The maximum 1-hour and annual NO₂ concentrations include ambient NO₂ ratios of 0.80 (EPA, 2011) and 0.75 (EPA, 2005), respectively.

Rule 2005. Table 3 presents a comparison of the maximum AEC operation impacts for a single turbine from Table 5.1-30 of the air permit application to the maximum modeled operation impacts for a single turbine from the modeling addendum. For all pollutants and averaging times, the maximum modeled concentrations from the modeling addendum are less than those of the air permit application modeling analysis. Therefore, the revision to the AEC fenceline will not result in greater impacts than the commissioning impacts presented in the air permit application, with respect to SCAQMD Rule 2005.

TABLE 3
Addendum to SCAQMD Rule 2005 Compliance – Maximum Model Results per Emission Unit

Pollutant	Averaging Time	Maximum Modeled Application Impact ($\mu\text{g}/\text{m}^3$)	Maximum Modeled Addendum Impact ($\mu\text{g}/\text{m}^3$)
NO ₂ ^a	1-hour	22.5	8.28
	Federal 1-hour	22.5	8.28
	Annual	0.021	0.017

^a The maximum 1-hour and annual NO₂ concentrations include ambient NO₂ ratios of 0.80 (EPA, 2011) and 0.75 (EPA, 2005), respectively.

Regulation XVII (Prevention of Significant Deterioration). Table 4, which is a revision to Table 5.1-31 of the air permit application, presents a summary of the predicted hourly and annual nitrogen dioxide (NO₂) and 24-hour and annual particulate matter with aerodynamic diameter less than or equal to 10 microns (PM₁₀) impacts from AEC operation using the 13 new receptors, as well as a comparison to the Class II Significant Impact Levels (SILs), Class II Prevention of Significant Deterioration (PSD) Increment Standards, and the significant monitoring concentration levels. As shown, the maximum predicted annual NO₂, 24-hour PM₁₀, and annual PM₁₀ impacts from AEC operation are below the Class II SILs, Class II PSD Increment Standards, and significant monitoring concentrations. Therefore, additional analysis of annual NO₂, 24-hour PM₁₀, and annual PM₁₀ impacts is not required. However, the maximum predicted 1-hour NO₂ impacts from the air permit application exceeded the Class II SIL. As a result, the cumulative impacts of the AEC and competing sources were re-assessed, per the methodology described in *Dispersion Modeling Protocol for the Alamitos Energy Center* (see Appendix 5.1F of the air permit application), for all new receptors where the AEC impacts alone exceeded the 1-hour NO₂ SIL.

TABLE 4
AEC Predicted Impacts Compared to the PSD Air Quality Impact Standards

Averaging Period/ Pollutant	Maximum Predicted Impact (µg/m ³)	Significant Impact Level (µg/m ³)	PSD Class II Increment Standard (µg/m ³)	Significant Monitoring Concentrations (µg/m ³)
NO ₂ (1-hour) ^a	32.5	7.52 ^b	N/A	N/A
NO ₂ (Annual) ^a	0.19	1.0	25	14
PM ₁₀ (24-hour)	2.23	5.0	30	10
PM ₁₀ (Annual)	0.11	1.0	17	N/A

^a The maximum 1-hour and annual NO₂ concentrations include ambient NO₂ ratios of 0.80 (EPA, 2011) and 0.75 (EPA, 2005), respectively.

^b The SIL for 1-hour NO₂ is based on SCAQMD correspondence.

N/A = Not applicable (i.e., no standard)

Because each of the new receptors had AEC impacts that alone exceeded the 1-hour NO₂ SIL, the cumulative impacts from the AEC and competing sources were assessed for all receptors added as part of the modeling addendum. Using the AERMOD MAXDCONT output option, contributions from AEC for each of the first through eighth highest modeled impacts were determined at each receptor. Over the five modeled years, the contribution from AEC is less than the SIL for all receptors that exceeded the National Ambient Air Quality Standard (NAAQS). Therefore, AEC's contribution to each modeled exceedance is less than significant and would not cause or contribute to any modeled exceedance of the 1-hour NO₂ NAAQS.

Additional modeling was not conducted for the Class I SILs, Class II Visibility, or fumigation analysis, as the results presented in the air permit application would not be expected to change due to the revised project fence line.

If you require further information, please don't hesitate contacting me at 562-493-7840.

Sincerely,

A handwritten signature in blue ink that reads "S. O'Kane". The signature is fluid and cursive, with the first name "S." and the last name "O'Kane" clearly legible.

Stephen O'Kane
Vice-President
AES Southland Development, LLC
Attachments

cc: Jerry Salamy/CH2M HILL
Jennifer Didlo/AES
Jeff Harris/ESH
Keith Winstead/CEC
Cleveland Holladay/EPA
Ian MacMillan/SCAQMD

Attachment A1: Modeling Addendum Results

Short-Term Results

Source Group	Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)	
		1-hour (Full Block)	1-hour (Single CTG)	1-hour	8-hour
Block 4 5% Load with Blocks 1-3	2006	254	-	1,000	519
	2007	258	-	1,149	522
	2008	259	-	1,066	547
	2009	258	-	1,013	377
	2011	264	-	1,968	826
Block 4 40% Load with Blocks 1-3	2006	247	-	881	455
	2007	250	-	1,009	458
	2008	251	-	940	481
	2009	250	-	891	332
	2011	255	-	1,665	746
Block 4 50% Load with Blocks 1-3	2006	280	254	1,954	1,046
	2007	288	258	2,232	1,048
	2008	288	258	2,078	1,104
	2009	288	257	1,972	762
	2011	298	263	3,763	1,715
Block 4 Full Load with Blocks 1-3	2006	243	-	124	28.0
	2007	246	-	121	29.8
	2008	246	-	115	30.6
	2009	245	-	110	21.6
	2011	250	-	147	50.0

^a The maximum 1-hour NO₂ concentrations include an ambient NO₂ ratio of 0.80 combined with the seasonal maximum background concentration from the SCAQMD Port of Long Beach ambient monitor.

Annual Results

Source Group	Year	NO ₂ (µg/m ³) ^a	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
		Annual	Annual	Annual
ALL	2006	0.19	0.09	0.09
	2007	0.22	0.11	0.11
	2008	0.24	0.12	0.12
	2009	0.20	0.10	0.10
	2011	0.21	0.10	0.10
Block 1	2006	0.05	0.02	0.02
	2007	0.06	0.03	0.03
	2008	0.06	0.03	0.03
	2009	0.05	0.03	0.03
	2011	0.05	0.03	0.03
Block 2	2006	0.05	0.02	0.02
	2007	0.05	0.03	0.03
	2008	0.06	0.03	0.03
	2009	0.05	0.02	0.02
	2011	0.05	0.03	0.03
Block 3	2006	0.05	0.02	0.02
	2007	0.05	0.03	0.03
	2008	0.06	0.03	0.03
	2009	0.05	0.02	0.02
	2011	0.05	0.02	0.02
Block 4	2006	0.05	0.02	0.02
	2007	0.06	0.03	0.03
	2008	0.06	0.03	0.03
	2009	0.05	0.03	0.03
	2011	0.06	0.03	0.03

^a The maximum annual NO₂ concentrations include an ambient NO₂ ratio of 0.75.

Case 2: 28°F, 100% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	14.4	-	80.3	19.0	2.17	1.75	0.45	0.66	-	0.66	-
2007	17.5	-	97.9	21.3	2.65	2.37	0.58	0.85	-	0.85	-
2008	15.6	-	87.2	19.9	2.36	1.74	0.45	0.66	-	0.66	-
2009	14.9	-	83.2	14.6	2.25	1.53	0.47	0.69	-	0.69	-
2011	17.8	-	100	33.2	2.70	2.24	0.86	1.25	-	1.25	-

Case 3: 28°F, 90% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	16.4	-	91.9	22.0	2.25	1.85	0.48	0.78	-	0.78	-
2007	19.9	-	111	24.3	2.73	2.45	0.61	0.98	-	0.98	-
2008	17.9	-	100	23.3	2.45	1.82	0.47	0.76	-	0.76	-
2009	17.1	-	95.4	16.6	2.34	1.59	0.49	0.80	-	0.80	-
2011	20.4	-	114	37.7	2.80	2.43	0.92	1.49	-	1.49	-

Case 4: 28°F, 80% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	18.9	-	106	25.7	2.32	1.94	0.51	0.91	-	0.91	-
2007	22.7	-	127	27.9	2.79	2.50	0.64	1.15	-	1.15	-
2008	20.7	-	116	27.3	2.54	1.90	0.50	0.90	-	0.90	-
2009	19.6	-	110	19.0	2.41	1.65	0.51	0.93	-	0.93	-
2011	24.7	-	138	43.2	3.05	2.50	0.95	1.71	-	1.71	-

Case 5: 28°F, 70% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	22.5	-	126	30.2	2.49	2.06	0.54	1.08	-	1.08	-
2007	26.1	-	146	32.4	2.88	2.59	0.67	1.35	-	1.35	-
2008	24.1	-	135	32.3	2.66	2.03	0.53	1.06	-	1.06	-
2009	22.7	-	127	22.1	2.51	1.72	0.54	1.09	-	1.09	-
2011	30.3	-	170	52.0	3.35	2.66	1.05	2.10	-	2.10	-

Case 7: 65.3°F, 100% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	15.7	0.12	87.9	20.9	2.17	1.77	0.46	0.74	0.056	0.74	0.056
2007	19.1	0.13	107	23.2	2.63	2.36	0.59	0.94	0.066	0.94	0.066
2008	17.1	0.15	95.5	22.2	2.36	1.74	0.45	0.73	0.071	0.73	0.071
2009	16.3	0.12	91.1	15.8	2.25	1.53	0.47	0.76	0.060	0.76	0.060
2011	19.5	0.13	109	35.4	2.69	2.20	0.88	1.41	0.063	1.41	0.063

Case 8: 65.3°F, 90% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	17.8	0.12	100	24.0	2.24	1.86	0.49	0.85	0.065	0.85	0.065
2007	21.5	0.15	120	26.3	2.71	2.43	0.61	1.07	0.076	1.07	0.076
2008	19.4	0.16	109	25.5	2.45	1.82	0.48	0.84	0.082	0.84	0.082
2009	18.5	0.13	103	17.9	2.33	1.59	0.50	0.87	0.069	0.87	0.069
2011	22.7	0.14	127	40.9	2.88	2.44	0.93	1.62	0.072	1.62	0.072

Case 9: 65.3°F, 80% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	20.1	0.14	113	27.5	2.29	1.94	0.51	0.99	0.076	0.99	0.076
2007	24.2	0.16	135	29.8	2.75	2.47	0.63	1.23	0.088	1.23	0.088
2008	22.1	0.17	124	29.4	2.51	1.90	0.50	0.97	0.095	0.97	0.095
2009	20.9	0.14	117	20.2	2.38	1.63	0.51	0.99	0.080	0.99	0.080
2011	27.0	0.15	151	47.7	3.08	2.53	0.99	1.92	0.084	1.92	0.084

Case 10: 65.3°F, 70% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	23.4	0.15	131	32.3	2.41	2.08	0.54	1.16	0.090	1.16	0.090
2007	27.4	0.17	153	34.1	2.82	2.53	0.66	1.43	0.10	1.43	0.10
2008	25.4	0.19	142	34.2	2.61	2.01	0.53	1.13	0.11	1.13	0.11
2009	23.9	0.16	134	23.4	2.46	1.69	0.54	1.15	0.095	1.15	0.095
2011	32.5	0.16	182	54.8	3.35	2.68	1.04	2.23	0.098	2.23	0.098

Case 12: 107°F, 100% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	15.7	-	88.1	20.9	1.91	1.57	0.41	0.74	-	0.74	-
2007	19.1	-	107	23.1	2.33	2.08	0.52	0.94	-	0.94	-
2008	17.1	-	95.8	22.1	2.08	1.54	0.40	0.73	-	0.73	-
2009	16.3	-	91.3	15.7	1.99	1.35	0.42	0.76	-	0.76	-
2011	19.6	-	110	35.2	2.39	1.94	0.77	1.40	-	1.40	-

Case 13: 107°F, 90% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	19.3	-	108	26.2	2.17	1.82	0.48	0.94	-	0.94	-
2007	23.2	-	130	28.4	2.61	2.34	0.60	1.17	-	1.17	-
2008	21.2	-	118	27.9	2.38	1.78	0.47	0.92	-	0.92	-
2009	20.1	-	112	19.3	2.25	1.54	0.48	0.95	-	0.95	-
2011	25.6	-	143	44.5	2.88	2.33	0.92	1.80	-	1.80	-

Case 14: 107°F, 80% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	22.2	-	124	29.4	2.27	1.87	0.49	1.06	-	1.06	-
2007	25.7	-	144	31.6	2.62	2.35	0.61	1.32	-	1.32	-
2008	23.6	-	132	31.5	2.42	1.84	0.48	1.04	-	1.04	-
2009	22.3	-	125	21.6	2.28	1.56	0.49	1.07	-	1.07	-
2011	29.6	-	166	50.3	3.03	2.41	0.95	2.05	-	2.05	-

Case 15: 107°F, 70% Load

Year	NO ₂ (µg/m ³) ^a		CO (µg/m ³)		SO ₂ (µg/m ³)			PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)	
	1-hour	Annual	1-hour	8-hour	1-hour	3-hour	24-hour	24-hour	Annual	24-hour	Annual
2006	24.5	-	137	33.6	2.28	1.94	0.51	1.22	-	1.22	-
2007	28.7	-	161	35.6	2.67	2.39	0.63	1.50	-	1.50	-
2008	26.8	-	150	36.1	2.48	1.93	0.50	1.20	-	1.20	-
2009	25.1	-	141	24.5	2.33	1.61	0.51	1.22	-	1.22	-
2011	28.7	-	161	54.5	2.67	2.35	0.93	2.22	-	2.22	-

^a The maximum 1-hour and annual NO₂ concentrations include ambient NO₂ ratios of 0.80 and 0.75, respectively.

Block 1 Stack 1

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	2.59	0.014
2007	3.04	0.016
2008	2.84	0.017
2009	2.92	0.014
2011	2.83	0.014

Block 1 Stack 2

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	4.72	0.014
2007	3.26	0.016
2008	4.64	0.017
2009	3.03	0.014
2011	4.9	0.015

Block 1 Stack 3

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	4.67	0.013
2007	3.35	0.015
2008	4.14	0.017
2009	3.07	0.014
2011	4.9	0.015

Block 3 Stack 1

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	3.31	0.013
2007	1.75	0.014
2008	1.86	0.015
2009	1.69	0.013
2011	5.4	0.013

Block 3 Stack 2

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	3.91	0.013
2007	4.06	0.015
2008	4.48	0.016
2009	5.15	0.014
2011	3.7	0.013

Block 3 Stack 3

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	3.45	0.013
2007	1.98	0.015
2008	2.09	0.016
2009	1.95	0.014
2011	3.12	0.014

Block 2 Stack 1

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	2.9	0.013
2007	3.40	0.015
2008	4.11	0.016
2009	3.12	0.014
2011	4.3	0.014

Block 2 Stack 2

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	3.19	0.013
2007	3.39	0.014
2008	2.99	0.016
2009	3.11	0.013
2011	8.28	0.015

Block 2 Stack 3

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	3.49	0.012
2007	3.35	0.014
2008	2.81	0.015
2009	3.08	0.012
2011	6.44	0.013

Block 4 Stack 1

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	2.7	0.013
2007	3.19	0.015
2008	2.83	0.016
2009	2.81	0.014
2011	3.2	0.014

Block 4 Stack 2

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	2.88	0.012
2007	3.11	0.014
2008	2.81	0.015
2009	2.73	0.012
2011	6.17	0.013

Block 4 Stack 3

Year	1-hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
2006	3.33	0.011
2007	2.72	0.012
2008	2.72	0.013
2009	2.69	0.011
2011	5.02	0.012

The maximum 1-hour and annual NO₂ concentrations include ambient NO₂ ratios of 0.80 and 0.75, respectively.