

Shannon Technology and Energy Park (STEP) Power Plant

Appendix A8.3: Air Quality Modelled Prediction

Shannon LNG Limited

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Appendix A8.3: Air Quality Modelled Prediction

A.1 Operational Air Quality Predictions

The following tables provide operational air quality statistics associated with site emissions at all receptors considered in this assessment, for each Scenario.

Scenario Sc1: Gas-fired CCGT (Normal Operational)

Table A8.3.1: Predicted Annual Mean NO₂ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	0.26	0.6%	3.6	3.86	9.6%
R2	0.46	1.1%	3.6	4.06	10.1%
R3	0.73	1.8%	3.6	4.33	10.8%
R4	0.78	2.0%	3.6	4.38	11.0%
R5	0.86	2.1%	3.6	4.46	11.1%
R6	0.78	1.9%	3.6	4.38	10.9%
R7	0.94	2.3%	3.6	4.54	11.3%
R8	1.41	3.5%	3.6	5.01	12.5%
R9	1.42	3.6%	3.6	5.02	12.6%
R10	1.81	4.5%	3.6	5.41	13.5%
R11	0.78	2.0%	3.6	4.38	11.0%
R12	0.67	1.7%	3.6	4.27	10.7%
R13	2.40	6.0%	3.6	6.00	15.0%
R14	2.44	6.1%	3.6	6.04	15.1%
R15	1.75	4.4%	3.6	5.35	13.4%
R16	1.99	5.0%	3.6	5.59	14.0%
R17	0.79	2.0%	3.6	4.39	11.0%
R18	1.14	2.8%	3.6	4.74	11.8%
R19	4.12	10.3%	3.6	7.72	19.3%
R20	1.69	4.2%	3.6	5.29	13.2%
R21	0.68	1.7%	3.6	4.28	10.7%
R22	2.02	5.1%	3.6	5.62	14.1%
R23	1.65	4.1%	3.6	5.25	13.1%
R24	1.39	3.5%	3.6	4.99	12.5%
R25	1.68	4.2%	3.6	5.28	13.2%
R26	4.36	10.9%	3.6	7.96	19.9%
R27	1.45	3.6%	3.6	5.05	12.6%
R28	2.66	6.7%	3.6	6.26	15.7%
R29	2.94	7.3%	3.6	6.54	16.3%
R30	1.16	2.9%	3.6	4.76	11.9%
R31	1.12	2.8%	3.6	4.72	11.8%
R32	1.08	2.7%	3.6	4.68	11.7%
R33	1.81	4.5%	3.6	5.41	13.5%
R34	1.91	4.8%	3.6	5.51	13.8%
R35	1.12	2.8%	3.6	4.72	11.8%
R36	1.29	3.2%	3.6	4.89	12.2%
R37	0.71	1.8%	3.6	4.31	10.8%
R38	1.39	3.5%	3.6	4.99	12.5%
R39	1.18	3.0%	3.6	4.78	12.0%
R40	1.03	2.6%	3.6	4.63	11.6%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R41	0.90	2.2%	3.6	4.50	11.2%
R42	1.35	3.4%	3.6	4.95	12.4%
R43	0.89	2.2%	3.6	4.49	11.2%
R44	0.86	2.1%	3.6	4.46	11.1%
R45	0.76	1.9%	3.6	4.36	10.9%
R46	0.80	2.0%	3.6	4.40	11.0%
R47	0.68	1.7%	3.6	4.28	10.7%

Table A8.3.2: Predicted Hourly Mean NO₂ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	11.6	6%	7.9	19.5	10%
R2	15.1	8%	7.9	23.0	11%
R3	19.7	10%	7.9	27.6	14%
R4	21.4	11%	7.9	29.3	15%
R5	21.0	11%	7.9	28.9	14%
R6	40.3	20%	7.9	48.1	24%
R7	15.2	8%	7.9	23.1	12%
R8	33.2	17%	7.9	41.1	21%
R9	26.5	13%	7.9	34.3	17%
R10	31.4	16%	7.9	39.2	20%
R11	20.6	10%	7.9	28.5	14%
R12	14.0	7%	7.9	21.9	11%
R13	46.0	23%	7.9	53.9	27%
R14	50.0	25%	7.9	57.9	29%
R15	46.1	23%	7.9	53.9	27%
R16	52.0	26%	7.9	59.9	30%
R17	26.0	13%	7.9	33.9	17%
R18	36.7	18%	7.9	44.5	22%
R19	60.8	30%	7.9	68.7	34%
R20	37.6	19%	7.9	45.5	23%
R21	23.2	12%	7.9	31.1	16%
R22	35.7	18%	7.9	43.6	22%
R23	31.9	16%	7.9	39.8	20%
R24	33.0	17%	7.9	40.9	20%
R25	30.2	15%	7.9	38.1	19%
R26	51.6	26%	7.9	59.5	30%
R27	26.2	13%	7.9	34.0	17%
R28	38.5	19%	7.9	46.4	23%
R29	40.8	20%	7.9	48.7	24%
R30	22.5	11%	7.9	30.4	15%
R31	23.4	12%	7.9	31.3	16%
R32	23.4	12%	7.9	31.3	16%
R33	31.5	16%	7.9	39.3	20%
R34	33.3	17%	7.9	41.2	21%
R35	20.5	10%	7.9	28.4	14%
R36	22.9	11%	7.9	30.8	15%
R37	13.3	7%	7.9	21.2	11%
R38	26.1	13%	7.9	34.0	17%
R39	21.8	11%	7.9	29.6	15%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R40	19.5	10%	7.9	27.3	14%
R41	17.6	9%	7.9	25.5	13%
R42	18.8	9%	7.9	26.7	13%
R43	15.9	8%	7.9	23.7	12%
R44	16.6	8%	7.9	24.5	12%
R45	9.2	5%	7.9	17.0	9%
R46	15.5	8%	7.9	23.4	12%
R47	13.3	7%	7.9	21.1	11%

Table A8.3.3: Predicted Annual Mean PM₁₀ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	<0.1	<0.1%	10.2	10.23	25.6%
R2	<0.1	<0.1%	10.2	10.23	25.6%
R3	<0.1	<0.1%	10.2	10.23	25.6%
R4	<0.1	<0.1%	10.2	10.23	25.6%
R5	<0.1	<0.1%	10.2	10.23	25.6%
R6	<0.1	<0.1%	10.2	10.23	25.6%
R7	<0.1	<0.1%	10.2	10.23	25.6%
R8	<0.1	<0.1%	10.2	10.23	25.6%
R9	<0.1	<0.1%	10.2	10.23	25.6%
R10	<0.1	<0.1%	10.2	10.23	25.6%
R11	<0.1	<0.1%	10.2	10.23	25.6%
R12	<0.1	<0.1%	10.2	10.23	25.6%
R13	<0.1	<0.1%	10.2	10.23	25.6%
R14	<0.1	<0.1%	10.2	10.23	25.6%
R15	<0.1	<0.1%	10.2	10.23	25.6%
R16	<0.1	<0.1%	10.2	10.23	25.6%
R17	<0.1	<0.1%	10.2	10.23	25.6%
R18	<0.1	<0.1%	10.2	10.23	25.6%
R19	<0.1	<0.1%	10.2	10.23	25.6%
R20	<0.1	<0.1%	10.2	10.23	25.6%
R21	<0.1	<0.1%	10.2	10.23	25.6%
R22	<0.1	<0.1%	10.2	10.23	25.6%
R23	<0.1	<0.1%	10.2	10.23	25.6%
R24	<0.1	<0.1%	10.2	10.23	25.6%
R25	<0.1	<0.1%	10.2	10.23	25.6%
R26	<0.1	<0.1%	10.2	10.23	25.6%
R27	<0.1	<0.1%	10.2	10.23	25.6%
R28	<0.1	<0.1%	10.2	10.23	25.6%
R29	<0.1	<0.1%	10.2	10.23	25.6%
R30	<0.1	<0.1%	10.2	10.23	25.6%
R31	<0.1	<0.1%	10.2	10.23	25.6%
R32	<0.1	<0.1%	10.2	10.23	25.6%
R33	<0.1	<0.1%	10.2	10.23	25.6%
R34	<0.1	<0.1%	10.2	10.23	25.6%
R35	<0.1	<0.1%	10.2	10.23	25.6%
R36	<0.1	<0.1%	10.2	10.23	25.6%
R37	<0.1	<0.1%	10.2	10.23	25.6%
R38	<0.1	<0.1%	10.2	10.23	25.6%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R39	<0.1	<0.1%	10.2	10.23	25.6%
R40	<0.1	<0.1%	10.2	10.23	25.6%
R41	<0.1	<0.1%	10.2	10.23	25.6%
R42	<0.1	<0.1%	10.2	10.23	25.6%
R43	<0.1	<0.1%	10.2	10.23	25.6%
R44	<0.1	<0.1%	10.2	10.23	25.6%
R45	<0.1	<0.1%	10.2	10.23	25.6%
R46	<0.1	<0.1%	10.2	10.23	25.6%
R47	<0.1	<0.1%	10.2	10.23	25.6%

Table A8.3.4: Predicted Daily Mean PM₁₀ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	<0.1	<0.1%	20.5	20.5	40.9%
R2	<0.1	<0.1%	20.5	20.5	40.9%
R3	<0.1	<0.1%	20.5	20.5	40.9%
R4	<0.1	<0.1%	20.5	20.5	40.9%
R5	<0.1	<0.1%	20.5	20.5	40.9%
R6	<0.1	<0.1%	20.5	20.5	40.9%
R7	<0.1	<0.1%	20.5	20.5	40.9%
R8	<0.1	<0.1%	20.5	20.5	40.9%
R9	<0.1	<0.1%	20.5	20.5	40.9%
R10	<0.1	<0.1%	20.5	20.5	40.9%
R11	<0.1	<0.1%	20.5	20.5	40.9%
R12	<0.1	<0.1%	20.5	20.5	40.9%
R13	<0.1	<0.1%	20.5	20.5	40.9%
R14	<0.1	<0.1%	20.5	20.5	40.9%
R15	<0.1	<0.1%	20.5	20.5	40.9%
R16	<0.1	<0.1%	20.5	20.5	40.9%
R17	<0.1	<0.1%	20.5	20.5	40.9%
R18	<0.1	<0.1%	20.5	20.5	40.9%
R19	<0.1	<0.1%	20.5	20.5	40.9%
R20	<0.1	<0.1%	20.5	20.5	40.9%
R21	<0.1	<0.1%	20.5	20.5	40.9%
R22	<0.1	<0.1%	20.5	20.5	40.9%
R23	<0.1	<0.1%	20.5	20.5	40.9%
R24	<0.1	<0.1%	20.5	20.5	40.9%
R25	<0.1	<0.1%	20.5	20.5	40.9%
R26	<0.1	<0.1%	20.5	20.5	40.9%
R27	<0.1	<0.1%	20.5	20.5	40.9%
R28	<0.1	<0.1%	20.5	20.5	40.9%
R29	<0.1	<0.1%	20.5	20.5	40.9%
R30	<0.1	<0.1%	20.5	20.5	40.9%
R31	<0.1	<0.1%	20.5	20.5	40.9%
R32	<0.1	<0.1%	20.5	20.5	40.9%
R33	<0.1	<0.1%	20.5	20.5	40.9%
R34	<0.1	<0.1%	20.5	20.5	40.9%
R35	<0.1	<0.1%	20.5	20.5	40.9%
R36	<0.1	<0.1%	20.5	20.5	40.9%
R37	<0.1	<0.1%	20.5	20.5	40.9%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R38	<0.1	<0.1%	20.5	20.5	40.9%
R39	<0.1	<0.1%	20.5	20.5	40.9%
R40	<0.1	<0.1%	20.5	20.5	40.9%
R41	<0.1	<0.1%	20.5	20.5	40.9%
R42	<0.1	<0.1%	20.5	20.5	40.9%
R43	<0.1	<0.1%	20.5	20.5	40.9%
R44	<0.1	<0.1%	20.5	20.5	40.9%
R45	<0.1	<0.1%	20.5	20.5	40.9%
R46	<0.1	<0.1%	20.5	20.5	40.9%
R47	<0.1	<0.1%	20.5	20.5	40.9%

Table A8.3.5: Predicted Annual Mean PM_{2.5} Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	<0.1	<0.1%	6.6	6.6	33.0
R2	<0.1	<0.1%	6.6	6.6	33.0
R3	<0.1	<0.1%	6.6	6.6	33.0
R4	<0.1	<0.1%	6.6	6.6	33.0
R5	<0.1	<0.1%	6.6	6.6	33.0
R6	<0.1	<0.1%	6.6	6.6	33.0
R7	<0.1	<0.1%	6.6	6.6	33.0
R8	<0.1	<0.1%	6.6	6.6	33.0
R9	<0.1	<0.1%	6.6	6.6	33.0
R10	<0.1	<0.1%	6.6	6.6	33.0
R11	<0.1	<0.1%	6.6	6.6	33.0
R12	<0.1	<0.1%	6.6	6.6	33.0
R13	<0.1	<0.1%	6.6	6.6	33.0
R14	<0.1	<0.1%	6.6	6.6	33.0
R15	<0.1	<0.1%	6.6	6.6	33.0
R16	<0.1	<0.1%	6.6	6.6	33.0
R17	<0.1	<0.1%	6.6	6.6	33.0
R18	<0.1	<0.1%	6.6	6.6	33.0
R19	<0.1	<0.1%	6.6	6.6	33.0
R20	<0.1	<0.1%	6.6	6.6	33.0
R21	<0.1	<0.1%	6.6	6.6	33.0
R22	<0.1	<0.1%	6.6	6.6	33.0
R23	<0.1	<0.1%	6.6	6.6	33.0
R24	<0.1	<0.1%	6.6	6.6	33.0
R25	<0.1	<0.1%	6.6	6.6	33.0
R26	<0.1	<0.1%	6.6	6.6	33.0
R27	<0.1	<0.1%	6.6	6.6	33.0
R28	<0.1	<0.1%	6.6	6.6	33.0
R29	<0.1	<0.1%	6.6	6.6	33.0
R30	<0.1	<0.1%	6.6	6.6	33.0
R31	<0.1	<0.1%	6.6	6.6	33.0
R32	<0.1	<0.1%	6.6	6.6	33.0
R33	<0.1	<0.1%	6.6	6.6	33.0
R34	<0.1	<0.1%	6.6	6.6	33.0
R35	<0.1	<0.1%	6.6	6.6	33.0
R36	<0.1	<0.1%	6.6	6.6	33.0

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R37	<0.1	<0.1%	6.6	6.6	33.0
R38	<0.1	<0.1%	6.6	6.6	33.0
R39	<0.1	<0.1%	6.6	6.6	33.0
R40	<0.1	<0.1%	6.6	6.6	33.0
R41	<0.1	<0.1%	6.6	6.6	33.0
R42	<0.1	<0.1%	6.6	6.6	33.0
R43	<0.1	<0.1%	6.6	6.6	33.0
R44	<0.1	<0.1%	6.6	6.6	33.0
R45	<0.1	<0.1%	6.6	6.6	33.0
R46	<0.1	<0.1%	6.6	6.6	33.0
R47	<0.1	<0.1%	6.6	6.6	33.0

Table A8.3.6: Predicted Rolling 8-hour Maximum CO Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	40.6	0.4%	200.0	240.6	2.4%
R2	36.9	0.4%	200.0	236.9	2.4%
R3	62.9	0.6%	200.0	262.9	2.6%
R4	61.8	0.6%	200.0	261.8	2.6%
R5	71.1	0.7%	200.0	271.1	2.7%
R6	156.2	1.6%	200.0	356.2	3.6%
R7	39.0	0.4%	200.0	239.0	2.4%
R8	98.2	1.0%	200.0	298.2	3.0%
R9	77.4	0.8%	200.0	277.4	2.8%
R10	103.9	1.0%	200.0	303.9	3.0%
R11	59.0	0.6%	200.0	259.0	2.6%
R12	30.3	0.3%	200.0	230.3	2.3%
R13	155.1	1.6%	200.0	355.1	3.6%
R14	179.3	1.8%	200.0	379.3	3.8%
R15	151.1	1.5%	200.0	351.1	3.5%
R16	171.1	1.7%	200.0	371.1	3.7%
R17	75.7	0.8%	200.0	275.7	2.8%
R18	123.9	1.2%	200.0	323.9	3.2%
R19	224.9	2.2%	200.0	424.9	4.2%
R20	124.6	1.2%	200.0	324.6	3.2%
R21	73.0	0.7%	200.0	273.0	2.7%
R22	135.0	1.4%	200.0	335.0	3.4%
R23	106.3	1.1%	200.0	306.3	3.1%
R24	88.8	0.9%	200.0	288.8	2.9%
R25	104.2	1.0%	200.0	304.2	3.0%
R26	172.1	1.7%	200.0	372.1	3.7%
R27	81.0	0.8%	200.0	281.0	2.8%
R28	114.1	1.1%	200.0	314.1	3.1%
R29	127.9	1.3%	200.0	327.9	3.3%
R30	68.4	0.7%	200.0	268.4	2.7%
R31	76.6	0.8%	200.0	276.6	2.8%
R32	65.3	0.7%	200.0	265.3	2.7%
R33	85.0	0.9%	200.0	285.0	2.9%
R34	83.5	0.8%	200.0	283.5	2.8%
R35	59.1	0.6%	200.0	259.1	2.6%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R36	59.9	0.6%	200.0	259.9	2.6%
R37	33.9	0.3%	200.0	233.9	2.3%
R38	68.2	0.7%	200.0	268.2	2.7%
R39	58.2	0.6%	200.0	258.2	2.6%
R40	47.2	0.5%	200.0	247.2	2.5%
R41	37.6	0.4%	200.0	237.6	2.4%
R42	51.0	0.5%	200.0	251.0	2.5%
R43	39.0	0.4%	200.0	239.0	2.4%
R44	35.7	0.4%	200.0	235.7	2.4%
R45	20.8	0.2%	200.0	220.8	2.2%
R46	37.1	0.4%	200.0	237.1	2.4%
R47	28.7	0.3%	200.0	228.7	2.3%

Table A8.3.7: Predicted 1-hour Maximum CO Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	84.6	0.3%	200.0	284.6	0.9%
R2	131.8	0.4%	200.0	331.8	1.1%
R3	121.6	0.4%	200.0	321.6	1.1%
R4	155.3	0.5%	200.0	355.3	1.2%
R5	133.9	0.4%	200.0	333.9	1.1%
R6	182.3	0.6%	200.0	382.3	1.3%
R7	87.2	0.3%	200.0	287.2	1.0%
R8	160.3	0.5%	200.0	360.3	1.2%
R9	178.7	0.6%	200.0	378.7	1.3%
R10	181.0	0.6%	200.0	381.0	1.3%
R11	138.5	0.5%	200.0	338.5	1.1%
R12	94.1	0.3%	200.0	294.1	1.0%
R13	255.8	0.9%	200.0	455.8	1.5%
R14	255.7	0.9%	200.0	455.7	1.5%
R15	208.9	0.7%	200.0	408.9	1.4%
R16	233.7	0.8%	200.0	433.7	1.4%
R17	179.0	0.6%	200.0	379.0	1.3%
R18	200.5	0.7%	200.0	400.5	1.3%
R19	264.6	0.9%	200.0	464.6	1.5%
R20	181.7	0.6%	200.0	381.7	1.3%
R21	167.5	0.6%	200.0	367.5	1.2%
R22	207.3	0.7%	200.0	407.3	1.4%
R23	178.8	0.6%	200.0	378.8	1.3%
R24	162.9	0.5%	200.0	362.9	1.2%
R25	172.1	0.6%	200.0	372.1	1.2%
R26	247.4	0.8%	200.0	447.4	1.5%
R27	149.5	0.5%	200.0	349.5	1.2%
R28	204.5	0.7%	200.0	404.5	1.3%
R29	216.7	0.7%	200.0	416.7	1.4%
R30	154.5	0.5%	200.0	354.5	1.2%
R31	152.1	0.5%	200.0	352.1	1.2%
R32	168.0	0.6%	200.0	368.0	1.2%
R33	161.0	0.5%	200.0	361.0	1.2%
R34	177.1	0.6%	200.0	377.1	1.3%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R35	130.2	0.4%	200.0	330.2	1.1%
R36	134.0	0.4%	200.0	334.0	1.1%
R37	97.0	0.3%	200.0	297.0	1.0%
R38	177.8	0.6%	200.0	377.8	1.3%
R39	144.4	0.5%	200.0	344.4	1.1%
R40	132.8	0.4%	200.0	332.8	1.1%
R41	115.3	0.4%	200.0	315.3	1.1%
R42	106.7	0.4%	200.0	306.7	1.0%
R43	109.7	0.4%	200.0	309.7	1.0%
R44	111.8	0.4%	200.0	311.8	1.0%
R45	70.4	0.2%	200.0	270.4	0.9%
R46	109.6	0.4%	200.0	309.6	1.0%
R47	134.2	0.4%	200.0	334.2	1.1%

Table A8.3.8: Predicted Daily Mean SO₂ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	<0.1	<0.1%	8.5	8.5	6.8%
R2	<0.1	<0.1%	8.5	8.5	6.8%
R3	<0.1	<0.1%	8.5	8.5	6.8%
R4	<0.1	<0.1%	8.5	8.5	6.8%
R5	<0.1	<0.1%	8.5	8.5	6.8%
R6	<0.1	<0.1%	8.5	8.5	6.8%
R7	<0.1	<0.1%	8.5	8.5	6.8%
R8	<0.1	<0.1%	8.5	8.5	6.8%
R9	<0.1	<0.1%	8.5	8.5	6.8%
R10	<0.1	<0.1%	8.5	8.5	6.8%
R11	<0.1	<0.1%	8.5	8.5	6.8%
R12	<0.1	<0.1%	8.5	8.5	6.8%
R13	<0.1	<0.1%	8.5	8.5	6.8%
R14	<0.1	<0.1%	8.5	8.5	6.8%
R15	<0.1	<0.1%	8.5	8.5	6.8%
R16	<0.1	<0.1%	8.5	8.5	6.8%
R17	<0.1	<0.1%	8.5	8.5	6.8%
R18	<0.1	<0.1%	8.5	8.5	6.8%
R19	<0.1	<0.1%	8.5	8.5	6.8%
R20	<0.1	<0.1%	8.5	8.5	6.8%
R21	<0.1	<0.1%	8.5	8.5	6.8%
R22	<0.1	<0.1%	8.5	8.5	6.8%
R23	<0.1	<0.1%	8.5	8.5	6.8%
R24	<0.1	<0.1%	8.5	8.5	6.8%
R25	<0.1	<0.1%	8.5	8.5	6.8%
R26	<0.1	<0.1%	8.5	8.5	6.8%
R27	<0.1	<0.1%	8.5	8.5	6.8%
R28	<0.1	<0.1%	8.5	8.5	6.8%
R29	<0.1	<0.1%	8.5	8.5	6.8%
R30	<0.1	<0.1%	8.5	8.5	6.8%
R31	<0.1	<0.1%	8.5	8.5	6.8%
R32	<0.1	<0.1%	8.5	8.5	6.8%
R33	<0.1	<0.1%	8.5	8.5	6.8%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R34	<0.1	<0.1%	8.5	8.5	6.8%
R35	<0.1	<0.1%	8.5	8.5	6.8%
R36	<0.1	<0.1%	8.5	8.5	6.8%
R37	<0.1	<0.1%	8.5	8.5	6.8%
R38	<0.1	<0.1%	8.5	8.5	6.8%
R39	<0.1	<0.1%	8.5	8.5	6.8%
R40	<0.1	<0.1%	8.5	8.5	6.8%
R41	<0.1	<0.1%	8.5	8.5	6.8%
R42	<0.1	<0.1%	8.5	8.5	6.8%
R43	<0.1	<0.1%	8.5	8.5	6.8%
R44	<0.1	<0.1%	8.5	8.5	6.8%
R45	<0.1	<0.1%	8.5	8.5	6.8%
R46	<0.1	<0.1%	8.5	8.5	6.8%
R47	<0.1	<0.1%	8.5	8.5	6.8%

Table A8.3.9: Predicted Hourly Mean SO₂ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	<0.1	<0.1%	8.5	8.5	2.4%
R2	<0.1	<0.1%	8.5	8.5	2.4%
R3	<0.1	<0.1%	8.5	8.5	2.4%
R4	<0.1	<0.1%	8.5	8.5	2.4%
R5	<0.1	<0.1%	8.5	8.5	2.4%
R6	<0.1	<0.1%	8.5	8.5	2.4%
R7	<0.1	<0.1%	8.5	8.5	2.4%
R8	<0.1	<0.1%	8.5	8.5	2.4%
R9	<0.1	<0.1%	8.5	8.5	2.4%
R10	<0.1	<0.1%	8.5	8.5	2.4%
R11	<0.1	<0.1%	8.5	8.5	2.4%
R12	<0.1	<0.1%	8.5	8.5	2.4%
R13	<0.1	<0.1%	8.5	8.5	2.4%
R14	<0.1	<0.1%	8.5	8.5	2.4%
R15	<0.1	<0.1%	8.5	8.5	2.4%
R16	<0.1	<0.1%	8.5	8.5	2.4%
R17	<0.1	<0.1%	8.5	8.5	2.4%
R18	<0.1	<0.1%	8.5	8.5	2.4%
R19	<0.1	<0.1%	8.5	8.5	2.4%
R20	<0.1	<0.1%	8.5	8.5	2.4%
R21	<0.1	<0.1%	8.5	8.5	2.4%
R22	<0.1	<0.1%	8.5	8.5	2.4%
R23	<0.1	<0.1%	8.5	8.5	2.4%
R24	<0.1	<0.1%	8.5	8.5	2.4%
R25	<0.1	<0.1%	8.5	8.5	2.4%
R26	<0.1	<0.1%	8.5	8.5	2.4%
R27	<0.1	<0.1%	8.5	8.5	2.4%
R28	<0.1	<0.1%	8.5	8.5	2.4%
R29	<0.1	<0.1%	8.5	8.5	2.4%
R30	<0.1	<0.1%	8.5	8.5	2.4%
R31	<0.1	<0.1%	8.5	8.5	2.4%
R32	<0.1	<0.1%	8.5	8.5	2.4%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R33	<0.1	<0.1%	8.5	8.5	2.4%
R34	<0.1	<0.1%	8.5	8.5	2.4%
R35	<0.1	<0.1%	8.5	8.5	2.4%
R36	<0.1	<0.1%	8.5	8.5	2.4%
R37	<0.1	<0.1%	8.5	8.5	2.4%
R38	<0.1	<0.1%	8.5	8.5	2.4%
R39	<0.1	<0.1%	8.5	8.5	2.4%
R40	<0.1	<0.1%	8.5	8.5	2.4%
R41	<0.1	<0.1%	8.5	8.5	2.4%
R42	<0.1	<0.1%	8.5	8.5	2.4%
R43	<0.1	<0.1%	8.5	8.5	2.4%
R44	<0.1	<0.1%	8.5	8.5	2.4%
R45	<0.1	<0.1%	8.5	8.5	2.4%
R46	<0.1	<0.1%	8.5	8.5	2.4%
R47	<0.1	<0.1%	8.5	8.5	2.4%

Table A8.3.10: Predicted 15-minute Mean SO₂ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	<0.1	<0.1%	8.5	8.5	3.2%
R2	<0.1	<0.1%	8.5	8.5	3.2%
R3	<0.1	<0.1%	8.5	8.5	3.2%
R4	<0.1	<0.1%	8.5	8.5	3.2%
R5	<0.1	<0.1%	8.5	8.5	3.2%
R6	<0.1	<0.1%	8.5	8.5	3.2%
R7	<0.1	<0.1%	8.5	8.5	3.2%
R8	<0.1	<0.1%	8.5	8.5	3.2%
R9	<0.1	<0.1%	8.5	8.5	3.2%
R10	<0.1	<0.1%	8.5	8.5	3.2%
R11	<0.1	<0.1%	8.5	8.5	3.2%
R12	<0.1	<0.1%	8.5	8.5	3.2%
R13	<0.1	<0.1%	8.5	8.5	3.2%
R14	<0.1	<0.1%	8.5	8.5	3.2%
R15	<0.1	<0.1%	8.5	8.5	3.2%
R16	<0.1	<0.1%	8.5	8.5	3.2%
R17	<0.1	<0.1%	8.5	8.5	3.2%
R18	<0.1	<0.1%	8.5	8.5	3.2%
R19	<0.1	<0.1%	8.5	8.5	3.2%
R20	<0.1	<0.1%	8.5	8.5	3.2%
R21	<0.1	<0.1%	8.5	8.5	3.2%
R22	<0.1	<0.1%	8.5	8.5	3.2%
R23	<0.1	<0.1%	8.5	8.5	3.2%
R24	<0.1	<0.1%	8.5	8.5	3.2%
R25	<0.1	<0.1%	8.5	8.5	3.2%
R26	<0.1	<0.1%	8.5	8.5	3.2%
R27	<0.1	<0.1%	8.5	8.5	3.2%
R28	<0.1	<0.1%	8.5	8.5	3.2%
R29	<0.1	<0.1%	8.5	8.5	3.2%
R30	<0.1	<0.1%	8.5	8.5	3.2%
R31	<0.1	<0.1%	8.5	8.5	3.2%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R32	<0.1	<0.1%	8.5	8.5	3.2%
R33	<0.1	<0.1%	8.5	8.5	3.2%
R34	<0.1	<0.1%	8.5	8.5	3.2%
R35	<0.1	<0.1%	8.5	8.5	3.2%
R36	<0.1	<0.1%	8.5	8.5	3.2%
R37	<0.1	<0.1%	8.5	8.5	3.2%
R38	<0.1	<0.1%	8.5	8.5	3.2%
R39	<0.1	<0.1%	8.5	8.5	3.2%
R40	<0.1	<0.1%	8.5	8.5	3.2%
R41	<0.1	<0.1%	8.5	8.5	3.2%
R42	<0.1	<0.1%	8.5	8.5	3.2%
R43	<0.1	<0.1%	8.5	8.5	3.2%
R44	<0.1	<0.1%	8.5	8.5	3.2%
R45	<0.1	<0.1%	8.5	8.5	3.2%
R46	<0.1	<0.1%	8.5	8.5	3.2%
R47	<0.1	<0.1%	8.5	8.5	3.2%

Table A8.3.11: Predicted Annual Mean C₆H₆ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	0.11	2.2%	0.2	0.32	6.4%
R2	0.20	4.0%	0.2	0.41	8.2%
R3	0.32	6.3%	0.2	0.53	10.5%
R4	0.34	6.8%	0.2	0.55	11.0%
R5	0.37	7.5%	0.2	0.58	11.7%
R6	0.33	6.6%	0.2	0.54	10.8%
R7	0.41	8.2%	0.2	0.62	12.4%
R8	0.62	12.4%	0.2	0.83	16.6%
R9	0.62	12.4%	0.2	0.83	16.6%
R10	0.79	15.8%	0.2	1.00	20.0%
R11	0.34	6.8%	0.2	0.55	11.0%
R12	0.29	5.8%	0.2	0.50	10.0%
R13	1.04	20.9%	0.2	1.25	25.1%
R14	1.06	21.2%	0.2	1.27	25.4%
R15	0.75	15.1%	0.2	0.96	19.3%
R16	0.85	17.1%	0.2	1.06	21.3%
R17	0.34	6.8%	0.2	0.55	11.0%
R18	0.49	9.8%	0.2	0.70	14.0%
R19	1.80	35.9%	0.2	2.01	40.1%
R20	0.74	14.8%	0.2	0.95	19.0%
R21	0.30	5.9%	0.2	0.51	10.1%
R22	0.88	17.6%	0.2	1.09	21.8%
R23	0.72	14.4%	0.2	0.93	18.6%
R24	0.61	12.1%	0.2	0.82	16.3%
R25	0.72	14.4%	0.2	0.93	18.6%
R26	1.87	37.4%	0.2	2.08	41.6%
R27	0.62	12.4%	0.2	0.83	16.6%
R28	1.14	22.9%	0.2	1.35	27.1%
R29	1.26	25.2%	0.2	1.47	29.4%
R30	0.50	10.0%	0.2	0.71	14.2%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R31	0.49	9.7%	0.2	0.70	13.9%
R32	0.47	9.3%	0.2	0.68	13.5%
R33	0.78	15.7%	0.2	0.99	19.9%
R34	0.83	16.6%	0.2	1.04	20.8%
R35	0.48	9.7%	0.2	0.69	13.9%
R36	0.56	11.2%	0.2	0.77	15.4%
R37	0.31	6.2%	0.2	0.52	10.4%
R38	0.60	12.1%	0.2	0.81	16.3%
R39	0.51	10.3%	0.2	0.72	14.5%
R40	0.45	9.0%	0.2	0.66	13.2%
R41	0.39	7.8%	0.2	0.60	12.0%
R42	0.59	11.7%	0.2	0.80	15.9%
R43	0.39	7.8%	0.2	0.60	12.0%
R44	0.38	7.5%	0.2	0.59	11.7%
R45	0.26	5.2%	0.2	0.47	9.4%
R46	0.35	7.0%	0.2	0.56	11.2%
R47	0.30	6.0%	0.2	0.51	10.2%

Table A8.3.12: Predicted Hourly Maximum C₆H₆ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	18.7	9.6%	0.4	19.2	9.8%
R2	29.2	15.0%	0.4	29.6	15.2%
R3	26.9	13.8%	0.4	27.4	14.0%
R4	34.4	17.6%	0.4	34.8	17.8%
R5	29.6	15.2%	0.4	30.0	15.4%
R6	40.3	20.7%	0.4	40.8	20.9%
R7	19.3	9.9%	0.4	19.7	10.1%
R8	35.4	18.2%	0.4	35.8	18.4%
R9	39.6	20.3%	0.4	40.0	20.5%
R10	40.1	20.5%	0.4	40.5	20.8%
R11	30.6	15.7%	0.4	31.0	15.9%
R12	20.8	10.7%	0.4	21.3	10.9%
R13	56.8	29.1%	0.4	57.2	29.3%
R14	56.7	29.1%	0.4	57.1	29.3%
R15	46.4	23.8%	0.4	46.8	24.0%
R16	51.9	26.6%	0.4	52.3	26.8%
R17	39.8	20.4%	0.4	40.2	20.6%
R18	44.5	22.8%	0.4	45.0	23.1%
R19	58.8	30.1%	0.4	59.2	30.4%
R20	40.4	20.7%	0.4	40.8	20.9%
R21	37.2	19.1%	0.4	37.6	19.3%
R22	46.0	23.6%	0.4	46.4	23.8%
R23	39.6	20.3%	0.4	40.0	20.5%
R24	36.1	18.5%	0.4	36.5	18.7%
R25	38.2	19.6%	0.4	38.6	19.8%
R26	54.9	28.2%	0.4	55.4	28.4%
R27	33.1	17.0%	0.4	33.5	17.2%
R28	45.3	23.3%	0.4	45.8	23.5%
R29	48.0	24.6%	0.4	48.4	24.8%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R30	34.2	17.6%	0.4	34.7	17.8%
R31	33.7	17.3%	0.4	34.1	17.5%
R32	37.3	19.1%	0.4	37.7	19.3%
R33	35.7	18.3%	0.4	36.1	18.5%
R34	39.1	20.1%	0.4	39.6	20.3%
R35	28.8	14.8%	0.4	29.3	15.0%
R36	29.7	15.2%	0.4	30.1	15.4%
R37	21.5	11.0%	0.4	21.9	11.2%
R38	39.4	20.2%	0.4	39.8	20.4%
R39	31.9	16.4%	0.4	32.4	16.6%
R40	29.4	15.1%	0.4	29.8	15.3%
R41	25.5	13.1%	0.4	26.0	13.3%
R42	23.5	12.1%	0.4	23.9	12.3%
R43	24.3	12.5%	0.4	24.7	12.7%
R44	24.8	12.7%	0.4	25.2	12.9%
R45	15.6	8.0%	0.4	16.0	8.2%
R46	24.3	12.5%	0.4	24.7	12.7%
R47	29.8	15.3%	0.4	30.2	15.5%

Table A8.3.13: Predicted Annual Mean NO_x Process Contribution and Predicted Environmental Concentration at Nature Conservation Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
E1	0.47	1.6%	3.6	4.07	13.6%
E2	0.42	1.4%	3.6	4.02	13.4%
E3	0.26	0.9%	3.6	3.86	12.9%
E4	0.35	1.2%	3.6	3.95	13.2%
E5	0.42	1.4%	3.6	4.02	13.4%
E6	0.59	2.0%	3.6	4.19	14.0%
E7	0.77	2.6%	3.6	4.37	14.6%
E8	0.63	2.1%	3.6	4.23	14.1%
E9	0.67	2.2%	3.6	4.27	14.2%
E10	0.52	1.7%	3.6	4.12	13.7%
E11	0.12	0.4%	3.6	3.72	12.4%
E12	0.68	2.3%	3.6	4.28	14.3%
E13	0.61	2.0%	3.6	4.21	14.0%
E14	0.59	2.0%	3.6	4.19	14.0%
E15	0.55	1.8%	3.6	4.15	13.8%
E16	0.44	1.5%	3.6	4.04	13.5%
E17	0.55	1.8%	3.6	4.15	13.8%
E18	0.41	1.4%	3.6	4.01	13.4%
E19	0.58	1.9%	3.6	4.18	13.9%
E20	0.45	1.5%	3.6	4.05	13.5%
E21	0.76	2.5%	3.6	4.36	14.5%
E22	0.51	1.7%	3.6	4.11	13.7%
E23	0.58	1.9%	3.6	4.18	13.9%
E24	0.23	0.8%	3.6	3.83	12.8%
E25	0.20	0.7%	3.6	3.80	12.7%
E26	0.15	0.5%	3.6	3.75	12.5%
E27	0.19	0.6%	3.6	3.79	12.6%

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
E28	0.23	0.8%	3.6	3.83	12.8%
E29	0.18	0.6%	3.6	3.78	12.6%
E30	0.15	0.5%	3.6	3.75	12.5%
E31	0.10	0.3%	3.6	3.70	12.3%
E32	0.10	0.3%	3.6	3.70	12.3%
E33	0.10	0.3%	3.6	3.70	12.3%
E34	0.26	0.9%	3.6	3.86	12.9%
E35	0.25	0.8%	3.6	3.85	12.8%

Table A8.3.14: Predicted Daily Maximum NOx Process Contribution and Predicted Environmental Concentration at Nature Conservation Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
E1	10.5	14.0%	7.2	17.7	23.6%
E2	15.1	20.2%	7.2	22.3	29.8%
E3	10.9	14.5%	7.2	18.1	24.1%
E4	8.4	11.2%	7.2	15.6	20.8%
E5	3.9	5.1%	7.2	11.1	14.7%
E6	4.7	6.3%	7.2	11.9	15.9%
E7	6.7	9.0%	7.2	13.9	18.6%
E8	6.2	8.3%	7.2	13.4	17.9%
E9	8.7	11.6%	7.2	15.9	21.2%
E10	5.0	6.6%	7.2	12.2	16.2%
E11	3.2	4.3%	7.2	10.4	13.9%
E12	7.2	9.6%	7.2	14.4	19.2%
E13	5.5	7.3%	7.2	12.7	16.9%
E14	28.1	37.5%	7.2	35.3	47.1%
E15	21.1	28.2%	7.2	28.3	37.8%
E16	13.8	18.4%	7.2	21.0	28.0%
E17	12.7	16.9%	7.2	19.9	26.5%
E18	16.2	21.6%	7.2	23.4	31.2%
E19	6.6	8.8%	7.2	13.8	18.4%
E20	5.1	6.8%	7.2	12.3	16.4%
E21	6.0	8.0%	7.2	13.2	17.6%
E22	4.0	5.3%	7.2	11.2	14.9%
E23	7.4	9.9%	7.2	14.6	19.5%
E24	2.4	3.2%	7.2	9.6	12.8%
E25	2.4	3.2%	7.2	9.6	12.8%
E26	1.9	2.5%	7.2	9.1	12.1%
E27	2.1	2.9%	7.2	9.3	12.5%
E28	2.3	3.0%	7.2	9.5	12.6%
E29	2.3	3.1%	7.2	9.5	12.7%
E30	2.2	3.0%	7.2	9.4	12.6%
E31	1.6	2.2%	7.2	8.8	11.8%
E32	1.6	2.2%	7.2	8.8	11.8%
E33	1.6	2.2%	7.2	8.8	11.8%
E34	2.2	2.9%	7.2	9.4	12.5%
E35	2.1	2.7%	7.2	9.3	12.3%

Table A8.3.15: Predicted Annual Mean SO₂ Process Contribution and Predicted Environmental Concentration at Nature Conservation Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
E1	<0.1	<0.1	4.2	4.23	21.2
E2	<0.1	<0.1	4.2	4.23	21.2
E3	<0.1	<0.1	4.2	4.23	21.2
E4	<0.1	<0.1	4.2	4.23	21.2
E5	<0.1	<0.1	4.2	4.23	21.2
E6	<0.1	<0.1	4.2	4.23	21.2
E7	<0.1	<0.1	4.2	4.23	21.2
E8	<0.1	<0.1	4.2	4.23	21.2
E9	<0.1	<0.1	4.2	4.23	21.2
E10	<0.1	<0.1	4.2	4.23	21.2
E11	<0.1	<0.1	4.2	4.23	21.2
E12	<0.1	<0.1	4.2	4.23	21.2
E13	<0.1	<0.1	4.2	4.23	21.2
E14	<0.1	<0.1	4.2	4.23	21.2
E15	<0.1	<0.1	4.2	4.23	21.2
E16	<0.1	<0.1	4.2	4.23	21.2
E17	<0.1	<0.1	4.2	4.23	21.2
E18	<0.1	<0.1	4.2	4.23	21.2
E19	<0.1	<0.1	4.2	4.23	21.2
E20	<0.1	<0.1	4.2	4.23	21.2
E21	<0.1	<0.1	4.2	4.23	21.2
E22	<0.1	<0.1	4.2	4.23	21.2
E23	<0.1	<0.1	4.2	4.23	21.2
E24	<0.1	<0.1	4.2	4.23	21.2
E25	<0.1	<0.1	4.2	4.23	21.2
E26	<0.1	<0.1	4.2	4.23	21.2
E27	<0.1	<0.1	4.2	4.23	21.2
E28	<0.1	<0.1	4.2	4.23	21.2
E29	<0.1	<0.1	4.2	4.23	21.2
E30	<0.1	<0.1	4.2	4.23	21.2
E31	<0.1	<0.1	4.2	4.23	21.2
E32	<0.1	<0.1	4.2	4.23	21.2
E33	<0.1	<0.1	4.2	4.23	21.2
E34	<0.1	<0.1	4.2	4.23	21.2
E35	<0.1	<0.1	4.2	4.23	21.2

Table A8.3.16: Predicted Annual Mean Nitrogen Deposition Process Contribution and Predicted Environmental Concentration at Nature Conservation Receptors

Receptor	Process Cont. (kg N/ha/yr)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. (kg N/ha/yr)	Predicted Env. Conc. (kg N/ha/yr)	Predicted Env Conc. as a Proportion of AQ Standard (%)
E1	0.07	<1%	4.6	4.67	23.3%
E2	0.06	<1%	4.5	4.56	22.8%
E3	0.04	<1%	4.6	4.64	23.2%
E4	0.05	<1%	4.3	4.35	21.7%
E5	0.06	<1%	4.0	4.06	20.3%
E6	0.09	<1%	4.7	4.79	23.9%
E7	0.11	<1%	4.3	4.41	22.1%
E8	0.09	<1%	4.3	4.39	22.0%

Receptor	Process Cont. (kg N/ha/yr)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. (kg N/ha/yr)	Predicted Env. Conc. (kg N/ha/yr)	Predicted Env Conc. as a Proportion of AQ Standard (%)
E9	0.10	<1%	5.1	5.20	26.0%
E10	0.07	<1%	4.2	4.27	28.5%
E11	0.02	<1%	4.2	4.22	84.3%
E12	0.10	2.0%	4.0	4.10	82.0%
E13	0.09	1.8%	4.6	4.69	93.8%
E14	0.09	<1%	4.5	4.59	22.9%
E15	0.08	<1%	4.5	4.58	22.9%
E16	0.06	<1%	4.6	4.66	23.3%
E17	0.08	<1%	4.8	4.88	24.4%
E18	0.06	<1%	4.6	4.66	23.3%
E19	0.08	<1%	4.0	4.08	20.4%
E20	0.06	<1%	3.9	3.96	19.8%
E21	0.11	<1%	4.6	4.71	23.6%
E22	0.07	<1%	4.8	4.87	24.4%
E23	0.08	<1%	5.2	5.28	26.4%
E24	0.03	<1%	4.7	4.73	47.3%
E25	0.03	<1%	4.7	4.73	47.3%
E26	0.02	<1%	4.7	4.72	47.2%
E27	0.03	<1%	4.7	4.73	47.3%
E28	0.03	<1%	4.7	4.73	47.3%
E29	0.03	<1%	4.7	4.73	47.3%
E30	0.02	<1%	4.7	4.72	47.2%
E31	0.01	<1%	5.0	5.01	100.3%
E32	0.01	<1%	5.0	5.01	100.3%
E33	0.01	<1%	5.0	5.01	100.3%
E34	0.04	<1%	4.1	4.14	82.8%
E35	0.04	<1%	4.1	4.14	82.7%

Table A8.3.17: Predicted Annual Mean Acid Deposition Process Contribution and Predicted Environmental Concentration at Nature Conservation Receptors¹

Receptor	Process Cont. (kg N/ha/yr)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. (kg N/ha/yr)	Predicted Env. Conc. (kg N/ha/yr)	Predicted Env Conc. as a Proportion of AQ Standard (%) ²
E11	<0.01	<1%	0.3	0.30	52.8%
E12	<0.01	<1%	0.3	0.30	54.6%
E24	<0.01	<1%	0.3	0.30	Below CLMin
E25	<0.01	<1%	0.3	0.30	Below CLMin
E26	<0.01	<1%	0.3	0.30	Below CLMin
E27	<0.01	<1%	0.3	0.30	Below CLMin
E28	<0.01	<1%	0.3	0.30	Below CLMin
E29	<0.01	<1%	0.3	0.30	Below CLMin
E30	<0.01	<1%	0.3	0.30	Below CLMin
E31	<0.01	<1%	0.3	0.30	Below CLMin

Notes:

¹ Receptor E01 to E10, E163 to E23 and E32 to E35 are not considered to be sensitive to acid deposition impacts.

² APIS cannot provide a PEC where the total acid deposition rate is lower than the CLMin for a given habitat.

Scenario Sc2: Liquid Fuel-Fired CCGT (Gas Shortage Operation)

Table A8.3.18: Predicted Hourly Mean NO₂ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	14.6	7.3%	7.2	21.8	10.9%
R2	15.9	8.0%	7.2	23.1	11.6%
R3	24.1	12.1%	7.2	31.3	15.7%
R4	25.7	12.9%	7.2	32.9	16.5%
R5	26.1	13.1%	7.2	33.3	16.7%
R6	49.8	24.9%	7.2	57.0	28.5%
R7	18.7	9.4%	7.2	25.9	13.0%
R8	46.8	23.4%	7.2	54.0	27.0%
R9	32.6	16.3%	7.2	39.8	19.9%
R10	40.6	20.3%	7.2	47.8	23.9%
R11	26.9	13.4%	7.2	34.1	17.0%
R12	18.6	9.3%	7.2	25.8	12.9%
R13	56.5	28.2%	7.2	63.7	31.8%
R14	63.2	31.6%	7.2	70.4	35.2%
R15	64.4	32.2%	7.2	71.6	35.8%
R16	71.7	35.8%	7.2	78.9	39.4%
R17	34.9	17.4%	7.2	42.1	21.0%
R18	50.4	25.2%	7.2	57.6	28.8%
R19	85.8	42.9%	7.2	93.0	46.5%
R20	50.2	25.1%	7.2	57.4	28.7%
R21	28.5	14.3%	7.2	35.7	17.9%
R22	50.1	25.1%	7.2	57.3	28.7%
R23	38.5	19.2%	7.2	45.7	22.8%
R24	32.9	16.5%	7.2	40.1	20.1%
R25	41.9	20.9%	7.2	49.1	24.5%
R26	72.4	36.2%	7.2	79.6	39.8%
R27	34.3	17.1%	7.2	41.5	20.7%
R28	48.2	24.1%	7.2	55.4	27.7%
R29	51.4	25.7%	7.2	58.6	29.3%
R30	26.7	13.4%	7.2	33.9	17.0%
R31	25.3	12.7%	7.2	32.5	16.3%
R32	25.7	12.8%	7.2	32.9	16.4%
R33	34.9	17.5%	7.2	42.1	21.1%
R34	38.6	19.3%	7.2	45.8	22.9%
R35	25.6	12.8%	7.2	32.8	16.4%
R36	28.7	14.3%	7.2	35.9	17.9%
R37	16.6	8.3%	7.2	23.8	11.9%
R38	30.2	15.1%	7.2	37.4	18.7%
R39	27.4	13.7%	7.2	34.6	17.3%
R40	24.5	12.2%	7.2	31.7	15.8%
R41	22.1	11.0%	7.2	29.3	14.6%
R42	22.9	11.5%	7.2	30.1	15.1%
R43	20.0	10.0%	7.2	27.2	13.6%
R44	21.2	10.6%	7.2	28.4	14.2%
R45	12.5	6.2%	7.2	19.7	9.8%
R46	20.2	10.1%	7.2	27.4	13.7%
R47	18.9	9.5%	7.2	26.1	13.1%

Table A8.3.19: Predicted Daily Mean PM₁₀ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	0.0	0.0%	20.5	20.5	40.9%
R2	0.1	0.1%	20.5	20.5	41.0%
R3	0.1	0.2%	20.5	20.5	41.1%
R4	0.1	0.2%	20.5	20.5	41.1%
R5	0.1	0.2%	20.5	20.5	41.1%
R6	0.0	0.1%	20.5	20.5	41.0%
R7	0.1	0.3%	20.5	20.6	41.2%
R8	0.1	0.2%	20.5	20.6	41.1%
R9	0.2	0.3%	20.5	20.6	41.2%
R10	0.2	0.4%	20.5	20.6	41.3%
R11	0.1	0.3%	20.5	20.6	41.2%
R12	0.1	0.2%	20.5	20.5	41.1%
R13	0.3	0.6%	20.5	20.7	41.5%
R14	0.3	0.6%	20.5	20.7	41.5%
R15	0.2	0.4%	20.5	20.7	41.3%
R16	0.2	0.5%	20.5	20.7	41.4%
R17	0.1	0.2%	20.5	20.5	41.1%
R18	0.1	0.2%	20.5	20.6	41.1%
R19	0.5	0.9%	20.5	20.9	41.8%
R20	0.2	0.3%	20.5	20.6	41.2%
R21	0.1	0.2%	20.5	20.5	41.1%
R22	0.2	0.4%	20.5	20.7	41.3%
R23	0.2	0.4%	20.5	20.6	41.3%
R24	0.2	0.3%	20.5	20.6	41.2%
R25	0.2	0.3%	20.5	20.6	41.2%
R26	0.7	1.3%	20.5	21.1	42.2%
R27	0.2	0.3%	20.5	20.6	41.2%
R28	0.3	0.7%	20.5	20.8	41.6%
R29	0.4	0.8%	20.5	20.9	41.7%
R30	0.1	0.3%	20.5	20.6	41.2%
R31	0.2	0.3%	20.5	20.6	41.2%
R32	0.1	0.3%	20.5	20.6	41.2%
R33	0.2	0.5%	20.5	20.7	41.4%
R34	0.3	0.6%	20.5	20.7	41.5%
R35	0.2	0.3%	20.5	20.6	41.2%
R36	0.2	0.4%	20.5	20.6	41.3%
R37	0.1	0.2%	20.5	20.6	41.1%
R38	0.2	0.4%	20.5	20.7	41.3%
R39	0.2	0.3%	20.5	20.6	41.2%
R40	0.2	0.3%	20.5	20.6	41.2%
R41	0.2	0.3%	20.5	20.6	41.2%
R42	0.2	0.4%	20.5	20.6	41.3%
R43	0.1	0.3%	20.5	20.6	41.2%
R44	0.1	0.3%	20.5	20.6	41.2%
R45	0.1	0.2%	20.5	20.5	41.1%
R46	0.1	0.3%	20.5	20.6	41.2%
R47	0.1	0.2%	20.5	20.6	41.1%

Table A8.3.20: Predicted Rolling 8-hour Maximum CO Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	2.5	0.0%	200.0	202.5	2.0%
R2	2.3	0.0%	200.0	202.3	2.0%
R3	3.7	0.0%	200.0	203.7	2.0%
R4	3.5	0.0%	200.0	203.5	2.0%
R5	4.3	0.0%	200.0	204.3	2.0%
R6	9.8	0.1%	200.0	209.8	2.1%
R7	2.2	0.0%	200.0	202.2	2.0%
R8	6.1	0.1%	200.0	206.1	2.1%
R9	4.7	0.0%	200.0	204.7	2.0%
R10	5.5	0.1%	200.0	205.5	2.1%
R11	3.9	0.0%	200.0	203.9	2.0%
R12	1.9	0.0%	200.0	201.9	2.0%
R13	8.0	0.1%	200.0	208.0	2.1%
R14	9.3	0.1%	200.0	209.3	2.1%
R15	9.3	0.1%	200.0	209.3	2.1%
R16	10.3	0.1%	200.0	210.3	2.1%
R17	5.4	0.1%	200.0	205.4	2.1%
R18	7.2	0.1%	200.0	207.2	2.1%
R19	15.4	0.2%	200.0	215.4	2.2%
R20	6.9	0.1%	200.0	206.9	2.1%
R21	3.6	0.0%	200.0	203.6	2.0%
R22	7.4	0.1%	200.0	207.4	2.1%
R23	5.6	0.1%	200.0	205.6	2.1%
R24	4.6	0.0%	200.0	204.6	2.0%
R25	8.4	0.1%	200.0	208.4	2.1%
R26	25.0	0.2%	200.0	225.0	2.2%
R27	6.0	0.1%	200.0	206.0	2.1%
R28	12.6	0.1%	200.0	212.6	2.1%
R29	15.5	0.2%	200.0	215.5	2.2%
R30	4.0	0.0%	200.0	204.0	2.0%
R31	3.8	0.0%	200.0	203.8	2.0%
R32	3.9	0.0%	200.0	203.9	2.0%
R33	6.7	0.1%	200.0	206.7	2.1%
R34	6.0	0.1%	200.0	206.0	2.1%
R35	3.7	0.0%	200.0	203.7	2.0%
R36	3.9	0.0%	200.0	203.9	2.0%
R37	2.1	0.0%	200.0	202.1	2.0%
R38	4.4	0.0%	200.0	204.4	2.0%
R39	3.7	0.0%	200.0	203.7	2.0%
R40	3.2	0.0%	200.0	203.2	2.0%
R41	2.6	0.0%	200.0	202.6	2.0%
R42	3.6	0.0%	200.0	203.6	2.0%
R43	2.6	0.0%	200.0	202.6	2.0%
R44	2.4	0.0%	200.0	202.4	2.0%
R45	1.3	0.0%	200.0	201.3	2.0%
R46	2.2	0.0%	200.0	202.2	2.0%
R47	1.9	0.0%	200.0	201.9	2.0%

Table A8.3.21: Predicted 1-hour Maximum CO Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	5.0	0.0%	200.0	204.95	0.7%
R2	6.1	0.0%	200.0	206.08	0.7%
R3	6.7	0.0%	200.0	206.66	0.7%
R4	6.8	0.0%	200.0	206.80	0.7%
R5	6.9	0.0%	200.0	206.92	0.7%
R6	11.0	0.0%	200.0	210.97	0.7%
R7	5.2	0.0%	200.0	205.17	0.7%
R8	9.6	0.0%	200.0	209.63	0.7%
R9	8.2	0.0%	200.0	208.23	0.7%
R10	8.8	0.0%	200.0	208.77	0.7%
R11	6.4	0.0%	200.0	206.37	0.7%
R12	5.4	0.0%	200.0	205.42	0.7%
R13	12.2	0.0%	200.0	212.20	0.7%
R14	13.0	0.0%	200.0	213.03	0.7%
R15	11.6	0.0%	200.0	211.59	0.7%
R16	12.9	0.0%	200.0	212.86	0.7%
R17	9.0	0.0%	200.0	209.02	0.7%
R18	11.5	0.0%	200.0	211.47	0.7%
R19	23.6	0.1%	200.0	223.64	0.7%
R20	13.1	0.0%	200.0	213.08	0.7%
R21	7.0	0.0%	200.0	207.02	0.7%
R22	16.4	0.1%	200.0	216.44	0.7%
R23	10.7	0.0%	200.0	210.69	0.7%
R24	8.7	0.0%	200.0	208.73	0.7%
R25	15.5	0.1%	200.0	215.49	0.7%
R26	37.0	0.1%	200.0	236.98	0.8%
R27	13.1	0.0%	200.0	213.10	0.7%
R28	21.2	0.1%	200.0	221.16	0.7%
R29	22.7	0.1%	200.0	222.66	0.7%
R30	7.6	0.0%	200.0	207.64	0.7%
R31	6.7	0.0%	200.0	206.74	0.7%
R32	7.2	0.0%	200.0	207.22	0.7%
R33	10.7	0.0%	200.0	210.72	0.7%
R34	9.4	0.0%	200.0	209.35	0.7%
R35	6.3	0.0%	200.0	206.27	0.7%
R36	6.3	0.0%	200.0	206.34	0.7%
R37	4.9	0.0%	200.0	204.90	0.7%
R38	7.2	0.0%	200.0	207.16	0.7%
R39	6.0	0.0%	200.0	206.00	0.7%
R40	6.1	0.0%	200.0	206.06	0.7%
R41	5.4	0.0%	200.0	205.44	0.7%
R42	5.6	0.0%	200.0	205.64	0.7%
R43	5.3	0.0%	200.0	205.28	0.7%
R44	5.2	0.0%	200.0	205.25	0.7%
R45	4.3	0.0%	200.0	204.32	0.7%
R46	4.8	0.0%	200.0	204.84	0.7%
R47	6.4	0.0%	200.0	206.39	0.7%

Table A8.3.22: Predicted Daily Mean SO₂ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	0.0	0.0%	8.5	8.5	6.8%
R2	0.1	0.1%	8.5	8.5	6.8%
R3	0.1	0.1%	8.5	8.6	6.9%
R4	0.1	0.1%	8.5	8.6	6.9%
R5	0.1	0.1%	8.5	8.6	6.9%
R6	0.2	0.2%	8.5	8.7	7.0%
R7	0.1	0.1%	8.5	8.5	6.8%
R8	0.3	0.2%	8.5	8.7	7.0%
R9	0.2	0.2%	8.5	8.7	6.9%
R10	0.3	0.2%	8.5	8.7	7.0%
R11	0.1	0.1%	8.5	8.6	6.8%
R12	0.0	0.0%	8.5	8.5	6.8%
R13	0.3	0.2%	8.5	8.7	7.0%
R14	0.3	0.3%	8.5	8.8	7.0%
R15	0.2	0.2%	8.5	8.7	6.9%
R16	0.2	0.2%	8.5	8.7	7.0%
R17	0.1	0.1%	8.5	8.6	6.9%
R18	0.2	0.2%	8.5	8.7	6.9%
R19	0.5	0.4%	8.5	9.0	7.2%
R20	0.3	0.2%	8.5	8.8	7.0%
R21	0.1	0.1%	8.5	8.6	6.9%
R22	0.3	0.3%	8.5	8.8	7.0%
R23	0.2	0.2%	8.5	8.7	7.0%
R24	0.2	0.2%	8.5	8.7	6.9%
R25	0.2	0.1%	8.5	8.7	6.9%
R26	0.4	0.3%	8.5	8.9	7.1%
R27	0.2	0.1%	8.5	8.6	6.9%
R28	0.3	0.2%	8.5	8.8	7.0%
R29	0.3	0.2%	8.5	8.8	7.0%
R30	0.1	0.1%	8.5	8.6	6.9%
R31	0.1	0.1%	8.5	8.6	6.9%
R32	0.1	0.1%	8.5	8.6	6.9%
R33	0.2	0.1%	8.5	8.6	6.9%
R34	0.2	0.1%	8.5	8.6	6.9%
R35	0.1	0.1%	8.5	8.6	6.9%
R36	0.1	0.1%	8.5	8.6	6.9%
R37	0.0	0.0%	8.5	8.5	6.8%
R38	0.1	0.1%	8.5	8.6	6.9%
R39	0.1	0.1%	8.5	8.6	6.9%
R40	0.1	0.1%	8.5	8.6	6.9%
R41	0.1	0.1%	8.5	8.5	6.8%
R42	0.1	0.1%	8.5	8.5	6.8%
R43	0.1	0.1%	8.5	8.5	6.8%
R44	0.1	0.1%	8.5	8.5	6.8%
R45	0.0	0.0%	8.5	8.5	6.8%
R46	0.1	0.1%	8.5	8.5	6.8%
R47	0.0	0.0%	8.5	8.5	6.8%

Table A8.3.23: Predicted Hourly Mean SO₂ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	0.2	0.0%	8.5	8.6	2.5%
R2	0.2	0.1%	8.5	8.7	2.5%
R3	0.3	0.1%	8.5	8.8	2.5%
R4	0.3	0.1%	8.5	8.8	2.5%
R5	0.3	0.1%	8.5	8.8	2.5%
R6	0.6	0.2%	8.5	9.1	2.6%
R7	0.2	0.1%	8.5	8.7	2.5%
R8	0.6	0.2%	8.5	9.0	2.6%
R9	0.4	0.1%	8.5	8.9	2.5%
R10	0.5	0.1%	8.5	9.0	2.6%
R11	0.3	0.1%	8.5	8.8	2.5%
R12	0.2	0.1%	8.5	8.7	2.5%
R13	0.7	0.2%	8.5	9.2	2.6%
R14	0.8	0.2%	8.5	9.3	2.6%
R15	0.7	0.2%	8.5	9.2	2.6%
R16	0.8	0.2%	8.5	9.3	2.6%
R17	0.4	0.1%	8.5	8.8	2.5%
R18	0.5	0.1%	8.5	9.0	2.6%
R19	1.1	0.3%	8.5	9.5	2.7%
R20	0.6	0.2%	8.5	9.1	2.6%
R21	0.4	0.1%	8.5	8.8	2.5%
R22	0.6	0.2%	8.5	9.1	2.6%
R23	0.5	0.1%	8.5	9.0	2.6%
R24	0.4	0.1%	8.5	8.9	2.5%
R25	0.5	0.1%	8.5	9.0	2.6%
R26	0.9	0.3%	8.5	9.4	2.7%
R27	0.4	0.1%	8.5	8.9	2.5%
R28	0.6	0.2%	8.5	9.1	2.6%
R29	0.6	0.2%	8.5	9.1	2.6%
R30	0.3	0.1%	8.5	8.8	2.5%
R31	0.3	0.1%	8.5	8.8	2.5%
R32	0.3	0.1%	8.5	8.8	2.5%
R33	0.4	0.1%	8.5	8.9	2.5%
R34	0.5	0.1%	8.5	8.9	2.5%
R35	0.3	0.1%	8.5	8.8	2.5%
R36	0.3	0.1%	8.5	8.8	2.5%
R37	0.2	0.1%	8.5	8.7	2.5%
R38	0.4	0.1%	8.5	8.8	2.5%
R39	0.3	0.1%	8.5	8.8	2.5%
R40	0.3	0.1%	8.5	8.8	2.5%
R41	0.3	0.1%	8.5	8.7	2.5%
R42	0.3	0.1%	8.5	8.7	2.5%
R43	0.2	0.1%	8.5	8.7	2.5%
R44	0.3	0.1%	8.5	8.7	2.5%
R45	0.2	0.0%	8.5	8.6	2.5%
R46	0.2	0.1%	8.5	8.7	2.5%
R47	0.2	0.1%	8.5	8.7	2.5%

Table A8.3.24: Predicted 15-minute Mean SO₂ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	0.3	0.1%	8.5	8.8	3.3%
R2	0.4	0.1%	8.5	8.8	3.3%
R3	0.5	0.2%	8.5	8.9	3.4%
R4	0.4	0.2%	8.5	8.9	3.3%
R5	0.5	0.2%	8.5	9.0	3.4%
R6	0.8	0.3%	8.5	9.3	3.5%
R7	0.3	0.1%	8.5	8.8	3.3%
R8	0.8	0.3%	8.5	9.3	3.5%
R9	0.5	0.2%	8.5	9.0	3.4%
R10	0.6	0.2%	8.5	9.1	3.4%
R11	0.5	0.2%	8.5	9.0	3.4%
R12	0.4	0.1%	8.5	8.8	3.3%
R13	0.9	0.3%	8.5	9.4	3.5%
R14	1.0	0.4%	8.5	9.5	3.6%
R15	1.0	0.4%	8.5	9.5	3.6%
R16	1.1	0.4%	8.5	9.6	3.6%
R17	0.5	0.2%	8.5	9.0	3.4%
R18	0.8	0.3%	8.5	9.3	3.5%
R19	1.2	0.4%	8.5	9.6	3.6%
R20	0.7	0.3%	8.5	9.2	3.5%
R21	0.5	0.2%	8.5	8.9	3.4%
R22	0.7	0.3%	8.5	9.2	3.4%
R23	0.6	0.2%	8.5	9.0	3.4%
R24	0.5	0.2%	8.5	9.0	3.4%
R25	0.6	0.2%	8.5	9.1	3.4%
R26	1.1	0.4%	8.5	9.6	3.6%
R27	0.5	0.2%	8.5	9.0	3.4%
R28	0.7	0.3%	8.5	9.2	3.5%
R29	0.8	0.3%	8.5	9.3	3.5%
R30	0.4	0.2%	8.5	8.9	3.3%
R31	0.5	0.2%	8.5	8.9	3.4%
R32	0.4	0.2%	8.5	8.9	3.3%
R33	0.7	0.2%	8.5	9.1	3.4%
R34	0.8	0.3%	8.5	9.3	3.5%
R35	0.5	0.2%	8.5	9.0	3.4%
R36	0.6	0.2%	8.5	9.0	3.4%
R37	0.3	0.1%	8.5	8.8	3.3%
R38	0.7	0.2%	8.5	9.1	3.4%
R39	0.6	0.2%	8.5	9.0	3.4%
R40	0.5	0.2%	8.5	9.0	3.4%
R41	0.4	0.2%	8.5	8.9	3.3%
R42	0.5	0.2%	8.5	9.0	3.4%
R43	0.4	0.2%	8.5	8.9	3.3%
R44	0.4	0.2%	8.5	8.9	3.3%
R45	0.3	0.1%	8.5	8.7	3.3%
R46	0.4	0.2%	8.5	8.9	3.3%
R47	0.4	0.1%	8.5	8.8	3.3%

Table A8.3.25: Predicted Hourly Maximum C₆H₆ Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. As a Proportion of AQ Standard (%)
R1	2.8	1.5%	0.4	3.2	1.7%
R2	3.5	1.8%	0.4	3.9	2.0%
R3	3.8	2.0%	0.4	4.2	2.2%
R4	3.9	2.0%	0.4	4.3	2.2%
R5	4.0	2.0%	0.4	4.4	2.2%
R6	6.3	3.2%	0.4	6.7	3.4%
R7	3.0	1.5%	0.4	3.4	1.7%
R8	5.5	2.8%	0.4	5.9	3.0%
R9	4.7	2.4%	0.4	5.1	2.6%
R10	5.0	2.6%	0.4	5.4	2.8%
R11	3.6	1.9%	0.4	4.1	2.1%
R12	3.1	1.6%	0.4	3.5	1.8%
R13	7.0	3.6%	0.4	7.4	3.8%
R14	7.4	3.8%	0.4	7.9	4.0%
R15	6.6	3.4%	0.4	7.0	3.6%
R16	7.3	3.8%	0.4	7.8	4.0%
R17	5.2	2.6%	0.4	5.6	2.9%
R18	6.6	3.4%	0.4	7.0	3.6%
R19	13.5	6.9%	0.4	13.9	7.1%
R20	7.5	3.8%	0.4	7.9	4.0%
R21	4.0	2.1%	0.4	4.4	2.3%
R22	9.4	4.8%	0.4	9.8	5.0%
R23	6.1	3.1%	0.4	6.5	3.3%
R24	5.0	2.6%	0.4	5.4	2.8%
R25	8.8	4.5%	0.4	9.3	4.8%
R26	21.1	10.8%	0.4	21.5	11.1%
R27	7.5	3.8%	0.4	7.9	4.1%
R28	12.1	6.2%	0.4	12.5	6.4%
R29	12.9	6.6%	0.4	13.4	6.9%
R30	4.4	2.2%	0.4	4.8	2.5%
R31	3.9	2.0%	0.4	4.3	2.2%
R32	4.1	2.1%	0.4	4.5	2.3%
R33	6.1	3.1%	0.4	6.5	3.4%
R34	5.3	2.7%	0.4	5.8	3.0%
R35	3.6	1.8%	0.4	4.0	2.1%
R36	3.6	1.9%	0.4	4.0	2.1%
R37	2.8	1.4%	0.4	3.2	1.7%
R38	4.1	2.1%	0.4	4.5	2.3%
R39	3.4	1.8%	0.4	3.8	2.0%
R40	3.5	1.8%	0.4	3.9	2.0%
R41	3.1	1.6%	0.4	3.5	1.8%
R42	3.2	1.7%	0.4	3.6	1.9%
R43	3.0	1.5%	0.4	3.4	1.8%
R44	3.0	1.5%	0.4	3.4	1.8%
R45	2.5	1.3%	0.4	2.9	1.5%
R46	2.8	1.4%	0.4	3.2	1.6%
R47	3.7	1.9%	0.4	4.1	2.1%

Table A8.3.26: Predicted Hourly Maximum CH₂O Process Contribution and Predicted Environmental Concentration at Human Health Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
R1	<0.1	<0.1%	<0.1	<0.1	<0.1%
R2	<0.1	<0.1%	<0.1	<0.1	<0.1%
R3	<0.1	<0.1%	<0.1	<0.1	<0.1%
R4	<0.1	<0.1%	<0.1	<0.1	<0.1%
R5	<0.1	<0.1%	<0.1	<0.1	<0.1%
R6	<0.1	<0.1%	<0.1	<0.1	<0.1%
R7	<0.1	<0.1%	<0.1	<0.1	<0.1%
R8	<0.1	<0.1%	<0.1	<0.1	<0.1%
R9	<0.1	<0.1%	<0.1	<0.1	<0.1%
R10	<0.1	<0.1%	<0.1	<0.1	<0.1%
R11	<0.1	<0.1%	<0.1	<0.1	<0.1%
R12	<0.1	<0.1%	<0.1	<0.1	<0.1%
R13	<0.1	<0.1%	<0.1	<0.1	<0.1%
R14	<0.1	<0.1%	<0.1	<0.1	<0.1%
R15	<0.1	<0.1%	<0.1	<0.1	<0.1%
R16	<0.1	<0.1%	<0.1	<0.1	<0.1%
R17	<0.1	<0.1%	<0.1	<0.1	<0.1%
R18	<0.1	<0.1%	<0.1	<0.1	<0.1%
R19	<0.1	<0.1%	<0.1	<0.1	<0.1%
R20	<0.1	<0.1%	<0.1	<0.1	<0.1%
R21	<0.1	<0.1%	<0.1	<0.1	<0.1%
R22	<0.1	<0.1%	<0.1	<0.1	<0.1%
R23	<0.1	<0.1%	<0.1	<0.1	<0.1%
R24	<0.1	<0.1%	<0.1	<0.1	<0.1%
R25	<0.1	<0.1%	<0.1	<0.1	<0.1%
R26	<0.1	<0.1%	<0.1	<0.1	<0.1%
R27	<0.1	<0.1%	<0.1	<0.1	<0.1%
R28	<0.1	<0.1%	<0.1	<0.1	<0.1%
R29	<0.1	<0.1%	<0.1	<0.1	<0.1%
R30	<0.1	<0.1%	<0.1	<0.1	<0.1%
R31	<0.1	<0.1%	<0.1	<0.1	<0.1%
R32	<0.1	<0.1%	<0.1	<0.1	<0.1%
R33	<0.1	<0.1%	<0.1	<0.1	<0.1%
R34	<0.1	<0.1%	<0.1	<0.1	<0.1%
R35	<0.1	<0.1%	<0.1	<0.1	<0.1%
R36	<0.1	<0.1%	<0.1	<0.1	<0.1%
R37	<0.1	<0.1%	<0.1	<0.1	<0.1%
R38	<0.1	<0.1%	<0.1	<0.1	<0.1%
R39	<0.1	<0.1%	<0.1	<0.1	<0.1%
R40	<0.1	<0.1%	<0.1	<0.1	<0.1%
R41	<0.1	<0.1%	<0.1	<0.1	<0.1%
R42	<0.1	<0.1%	<0.1	<0.1	<0.1%
R43	<0.1	<0.1%	<0.1	<0.1	<0.1%
R44	<0.1	<0.1%	<0.1	<0.1	<0.1%
R45	<0.1	<0.1%	<0.1	<0.1	<0.1%
R46	<0.1	<0.1%	<0.1	<0.1	<0.1%
R47	<0.1	<0.1%	<0.1	<0.1	<0.1%

Table A8.3.27: Predicted Daily Maximum NOx Process Contribution and Predicted Environmental Concentration at Nature Conservation Receptors

Receptor	Process Cont. ($\mu\text{g}/\text{m}^3$)	Process Cont. as proportion of AQ Standard (%)	Background (Ambient) Cont. ($\mu\text{g}/\text{m}^3$)	Predicted Env. Conc. ($\mu\text{g}/\text{m}^3$)	Predicted Env Conc. as a Proportion of AQ Standard (%)
E1	14.0	18.7%	7.2	21.2	28.3%
E2	20.0	26.6%	7.2	27.2	36.2%
E3	13.5	17.9%	7.2	20.7	27.5%
E4	11.2	15.0%	7.2	18.4	24.6%
E5	5.0	6.7%	7.2	12.2	16.3%
E6	6.8	9.0%	7.2	14.0	18.6%
E7	8.7	11.6%	7.2	15.9	21.2%
E8	8.7	11.6%	7.2	15.9	21.2%
E9	11.8	15.7%	7.2	19.0	25.3%
E10	6.0	8.0%	7.2	13.2	17.6%
E11	4.8	6.4%	7.2	12.0	16.0%
E12	8.4	11.2%	7.2	15.6	20.8%
E13	6.7	8.9%	7.2	13.9	18.5%
E14	40.1	53.5%	7.2	47.3	63.1%
E15	23.9	31.8%	7.2	31.1	41.4%
E16	18.4	24.5%	7.2	25.6	34.1%
E17	16.8	22.5%	7.2	24.0	32.1%
E18	19.6	26.1%	7.2	26.8	35.7%
E19	8.4	11.3%	7.2	15.6	20.9%
E20	6.7	8.9%	7.2	13.9	18.5%
E21	7.3	9.8%	7.2	14.5	19.4%
E22	5.7	7.6%	7.2	12.9	17.2%
E23	10.3	13.7%	7.2	17.5	23.3%
E24	3.5	4.7%	7.2	10.7	14.3%
E25	3.7	4.9%	7.2	10.9	14.5%
E26	2.9	3.8%	7.2	10.1	13.4%
E27	3.1	4.1%	7.2	10.3	13.7%
E28	3.3	4.4%	7.2	10.5	14.0%
E29	3.1	4.1%	7.2	10.3	13.7%
E30	3.1	4.2%	7.2	10.3	13.8%
E31	2.5	3.3%	7.2	9.7	12.9%
E32	2.5	3.3%	7.2	9.7	12.9%
E33	2.5	3.3%	7.2	9.7	12.9%
E34	2.8	3.7%	7.2	10.0	13.3%
E35	2.8	3.8%	7.2	10.0	13.4%