Gravity

Smart Campus

Gravity LDO Environmental Statement

Volume 2 – Appendices

Appendix 11.5 Human Health and Ecological Receptors Modelling Results

Appendix 11.5 Human Health and Ecological Receptors Modelling Results

Ecological Receptors

Energy Plant

NOx

Table A11.5.1 Predicted NOx Concentrations at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 3m above building height

Emission Rate	5g/s				10g/s				20g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.2	1%	6.7	22%	0.4	1%	6.9	23%	0.9	3%	7.4	25%
E2	0.0	0%	4.3	14%	0.0	0%	4.3	14%	0.0	0%	4.3	14%
E3	0.4	1%	4.7	16%	0.7	2%	5.0	17%	1.4	5%	5.7	19%
E4	0.2	1%	6.0	20%	0.3	1%	6.2	21%	0.6	2%	6.5	22%
E5	0.4	1%	4.7	16%	0.8	3%	5.1	17%	1.5	5%	5.8	19%
E6	0.3	1%	5.2	17%	0.6	2%	5.5	18%	1.1	4%	6.0	20%
E7	0.3	1%	5.1	17%	0.6	2%	5.4	18%	1.2	4%	6.0	20%
E8	0.2	1%	4.7	16%	0.4	1%	4.9	16%	0.7	2%	5.2	17%
E9	0.2	1%	4.3	14%	0.4	1%	4.5	15%	0.7	2%	4.9	16%
E10	0.3	1%	4.3	14%	0.5	2%	4.5	15%	1.1	4%	5.1	17%
E11	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.2	4%	5.5	18%
E12	0.3	1%	4.5	15%	0.6	2%	4.8	16%	1.1	4%	5.4	18%
E13	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.2	4%	5.5	18%
E14	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.2	4%	5.5	18%
E15	0.3	1%	4.7	16%	0.5	2%	4.9	16%	1.0	3%	5.4	18%
E16	0.1	0%	4.5	15%	0.3	1%	4.6	15%	0.6	2%	4.9	16%
E17	0.2	1%	4.3	14%	0.3	1%	4.5	15%	0.6	2%	4.8	16%
E18	0.1	0%	4.4	15%	0.3	1%	4.6	15%	0.6	2%	4.9	16%
E19	0.2	1%	4.4	15%	0.4	1%	4.5	15%	0.7	2%	4.9	16%
E20	0.1	0%	4.4	15%	0.2	1%	4.5	15%	0.4	1%	4.7	16%
E21	0.1	0%	4.3	14%	0.2	1%	4.4	15%	0.5	2%	4.6	15%
E22	0.1	0%	4.2	14%	0.2	1%	4.3	14%	0.4	1%	4.5	15%
E23	0.1	0%	4.3	14%	0.2	1%	4.4	15%	0.4	1%	4.6	15%
E24	0.1	0%	4.3	14%	0.2	1%	4.4	15%	0.3	1%	4.6	15%
E25	0.1	0%	4.4	15%	0.2	1%	4.5	15%	0.3	1%	4.6	15%
E26	0.1	0%	4.2	14%	0.2	1%	4.3	14%	0.3	1%	4.4	15%
E27	0.2	1%	6.7	22%	0.4	1%	6.9	23%	0.9	3%	7.4	25%
E28	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.3	4%	5.6	19%
E29	0.4	1%	4.7	16%	0.8	3%	5.1	17%	1.6	5%	5.9	20%
E30	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.2	4%	5.5	18%
E31	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.2	4%	5.4	18%
E32	0.3	1%	4.7	16%	0.6	2%	4.9	16%	1.1	4%	5.5	18%
E33	1.2	4%	6.7	22%	2.3	8%	7.8	26%	4.7	16%	10.2	34%
E34	1.2	4%	6.7	22%	2.4	8%	7.9	26%	4.8	16%	10.3	34%
E35	0.7	2%	9.1	30%	1.3	4%	9.7	32%	2.6	9%	11.0	37%
E36	0.7	2%	6.8	23%	1.4	5%	7.5	25%	2.7	9%	8.8	29%
E37	1.0	3%	6.0	20%	2.0	7%	7.1	24%	4.1	14%	9.1	30%
E38	0.5	2%	5.0	17%	1.0	3%	5.5	18%	2.0	7%	6.5	22%
E39	0.4	1%	4.9	16%	0.8	3%	5.3	18%	1.6	5%	6.1	20%
E40	0.4	1%	4.7	16%	0.8	3%	5.1	17%	1.6	5%	6.0	20%
E41	0.4	1%	4.7	16%	0.8	3%	5.1	17%	1.6	5%	5.9	20%

E42	0.3	1%	4.7	16%	0.7	2%	5.0	17%	1.4	5%	5.7	19%

Table A11.5.1 Predicted NOx Concentrations at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 10m above building height

Emission Rate	5g/s				10g/s				20g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.2	1%	6.7	22%	0.4	1%	6.9	23%	0.8	3%	7.3	24%
E2	0.0	0%	4.3	14%	0.0	0%	4.3	14%	0.0	0%	4.3	14%
E3	0.3	1%	4.6	15%	0.6	2%	5.0	17%	1.3	4%	5.6	19%
E4	0.1	0%	6.0	20%	0.3	1%	6.1	20%	0.5	2%	6.4	21%
E5	0.3	1%	4.7	16%	0.7	2%	5.0	17%	1.4	5%	5.7	19%
E6	0.2	1%	5.2	17%	0.5	2%	5.4	18%	1.0	3%	5.9	20%
E7	0.3	1%	5.1	17%	0.5	2%	5.4	18%	1.1	4%	5.9	20%
E8	0.2	1%	4.7	16%	0.3	1%	4.8	16%	0.7	2%	5.1	17%
E9	0.2	1%	4.3	14%	0.3	1%	4.4	15%	0.6	2%	4.7	16%
E10	0.2	1%	4.2	14%	0.5	2%	4.5	15%	1.0	3%	4.9	16%
E11	0.3	1%	4.5	15%	0.5	2%	4.8	16%	1.0	3%	5.3	18%
E12	0.3	1%	4.5	15%	0.5	2%	4.8	16%	1.0	3%	5.3	18%
E13	0.3	1%	4.6	15%	0.6	2%	4.8	16%	1.1	4%	5.4	18%
E14	0.3	1%	4.6	15%	0.5	2%	4.9	16%	1.1	4%	5.4	18%
E15	0.2	1%	4.7	16%	0.5	2%	4.9	16%	0.9	3%	5.4	18%
E16	0.1	0%	4.4	15%	0.3	1%	4.6	15%	0.5	2%	4.8	16%
E17	0.1	0%	4.3	14%	0.3	1%	4.4	15%	0.5	2%	4.7	16%
E18	0.1	0%	4.4	15%	0.3	1%	4.5	15%	0.5	2%	4.8	16%
E19	0.2	1%	4.3	14%	0.3	1%	4.5	15%	0.7	2%	4.8	16%
E20	0.1	0%	4.4	15%	0.2	1%	4.5	15%	0.4	1%	4.7	16%
E21	0.1	0%	4.2	14%	0.2	1%	4.3	14%	0.4	1%	4.5	15%
E22	0.1	0%	4.2	14%	0.2	1%	4.3	14%	0.3	1%	4.4	15%
E23	0.1	0%	4.3	14%	0.2	1%	4.4	15%	0.3	1%	4.6	15%
E24	0.1	0%	4.3	14%	0.1	0%	4.4	15%	0.3	1%	4.5	15%
E25	0.1	0%	4.4	15%	0.1	0%	4.5	15%	0.3	1%	4.6	15%
E26	0.1	0%	4.2	14%	0.1	0%	4.2	14%	0.3	1%	4.4	15%
E27	0.2	1%	6.7	22%	0.4	1%	6.9	23%	0.8	3%	7.3	24%
E28	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.2	4%	5.4	18%
E29	0.4	1%	4.7	16%	0.7	2%	5.1	17%	1.5	5%	5.8	19%
E30	0.3	1%	4.5	15%	0.5	2%	4.8	16%	1.0	3%	5.3	18%
E31	0.3	1%	4.5	15%	0.5	2%	4.8	16%	1.0	3%	5.3	18%
E32	0.2	1%	4.6	15%	0.5	2%	4.9	16%	1.0	3%	5.4	18%
E33	1.1	4%	6.6	22%	2.2	7%	7.7	26%	4.4	15%	9.9	33%
E34	1.1	4%	6.6	22%	2.2	7%	7.8	26%	4.5	15%	10.0	33%
E35	0.6	2%	9.0	30%	1.2	4%	9.6	32%	2.4	8%	10.8	36%
E36	0.6	2%	6.7	22%	1.3	4%	7.3	24%	2.5	8%	8.6	29%
E37	0.9	3%	6.0	20%	1.9	6%	6.9	23%	3.8	13%	8.8	29%
E38	0.5	2%	4.9	16%	0.9	3%	5.4	18%	1.9	6%	6.4	21%
E39	0.4	1%	4.8	16%	0.7	2%	5.2	17%	1.5	5%	5.9	20%
E40	0.4	1%	4.7	16%	0.7	2%	5.1	17%	1.5	5%	5.8	19%
E41	0.4	1%	4.7	16%	0.7	2%	5.0	17%	1.4	5%	5.7	19%
E42	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.3	4%	5.6	19%

Table A11.5.3 Predicted NOx Concentrations at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 10m above building height

Emission Rate	5g/s				10g/s				20g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC

E1	0.2	1%	6.7	22%	0.3	1%	6.8	23%	0.6	2%	7.1	24%
E2	0.0	0%	4.3	14%	0.0	0%	4.3	14%	0.0	0%	4.3	14%
E3	0.3	1%	4.6	15%	0.5	2%	4.8	16%	1.0	3%	5.4	18%
E4	0.1	0%	5.9	20%	0.2	1%	6.0	20%	0.4	1%	6.2	21%
E5	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.1	4%	5.4	18%
E6	0.2	1%	5.1	17%	0.4	1%	5.3	18%	0.8	3%	5.7	19%
E7	0.2	1%	5.0	17%	0.4	1%	5.2	17%	0.9	3%	5.7	19%
E8	0.1	0%	4.6	15%	0.3	1%	4.7	16%	0.5	2%	5.0	17%
E9	0.1	0%	4.2	14%	0.2	1%	4.4	15%	0.4	1%	4.6	15%
E10	0.2	1%	4.2	14%	0.4	1%	4.3	14%	0.7	2%	4.7	16%
E11	0.2	1%	4.5	15%	0.4	1%	4.7	16%	0.8	3%	5.1	17%
E12	0.2	1%	4.5	15%	0.4	1%	4.7	16%	0.9	3%	5.1	17%
E13	0.2	1%	4.5	15%	0.5	2%	4.8	16%	1.0	3%	5.2	17%
E14	0.2	1%	4.5	15%	0.5	2%	4.8	16%	0.9	3%	5.2	17%
E15	0.2	1%	4.6	15%	0.4	1%	4.8	16%	0.8	3%	5.2	17%
E16	0.1	0%	4.4	15%	0.2	1%	4.5	15%	0.4	1%	4.7	16%
E17	0.1	0%	4.3	14%	0.2	1%	4.4	15%	0.4	1%	4.6	15%
E18	0.1	0%	4.4	15%	0.2	1%	4.5	15%	0.4	1%	4.7	16%
E19	0.1	0%	4.3	14%	0.3	1%	4.4	15%	0.5	2%	4.7	16%
E20	0.1	0%	4.3	14%	0.1	0%	4.4	15%	0.3	1%	4.6	15%
E21	0.1	0%	4.2	14%	0.2	1%	4.3	14%	0.3	1%	4.4	15%
E22	0.1	0%	4.2	14%	0.1	0%	4.2	14%	0.2	1%	4.3	14%
E23	0.1	0%	4.3	14%	0.1	0%	4.4	15%	0.2	1%	4.5	15%
E24	0.1	0%	4.3	14%	0.1	0%	4.3	14%	0.2	1%	4.4	15%
E25	0.0	0%	4.4	15%	0.1	0%	4.4	15%	0.2	1%	4.5	15%
E26	0.1	0%	4.1	14%	0.1	0%	4.2	14%	0.2	1%	4.3	14%
E27	0.2	1%	6.7	22%	0.3	1%	6.8	23%	0.6	2%	7.1	24%
E28	0.2	1%	4.5	15%	0.5	2%	4.7	16%	0.9	3%	5.2	17%
E29	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.2	4%	5.5	18%
E30	0.2	1%	4.5	15%	0.4	1%	4.7	16%	0.8	3%	5.1	17%
E31	0.2	1%	4.5	15%	0.4	1%	4.7	16%	0.8	3%	5.1	17%
E32	0.2	1%	4.6	15%	0.4	1%	4.8	16%	0.8	3%	5.1	17%
E33	1.0	3%	6.5	22%	1.9	6%	7.4	25%	3.8	13%	9.3	31%
E34	1.0	3%	6.5	22%	2.0	7%	7.5	25%	3.9	13%	9.5	32%
E35	0.5	2%	8.9	30%	1.1	4%	9.5	32%	2.1	7%	10.5	35%
E36	0.5	2%	6.6	22%	1.1	4%	7.2	24%	2.2	7%	8.3	28%
E37	0.8	3%	5.9	20%	1.7	6%	6.7	22%	3.3	11%	8.3	28%
E38	0.4	1%	4.9	16%	0.8	3%	5.3	18%	1.7	6%	6.1	20%
E39	0.3	1%	4.8	16%	0.6	2%	5.1	17%	1.3	4%	5.8	19%
E40	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.2	4%	5.6	19%
E41	0.3	1%	4.6	15%	0.6	2%	4.9	16%	1.2	4%	5.5	18%
E42	0.3	1%	4.6	15%	0.5	2%	4.8	16%	1.0	3%	5.3	18%

SO_2

Table A11.5.4 Predicted SO_2 Concentrations at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 3m above building height

Emission Rate	2g/s				4g/s				8g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.1	0%	1.3	4%	0.2	1%	1.3	4%	0.4	1%	1.5	5%
E2	0.0	0%	0.0	0%	0.0	0%	0.7	2%	0.0	0%	0.7	2%
E3	0.1	0%	0.7	2%	0.3	1%	1.0	3%	0.6	2%	1.3	4%
E4	0.1	0%	0.3	1%	0.1	0%	1.1	4%	0.3	1%	1.3	4%
E5	0.2	1%	0.8	3%	0.3	1%	1.0	3%	0.6	2%	1.3	4%

E6	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.4	1%	1.3	4%
E7	0.1	0%	0.6	2%	0.2	1%	1.2	4%	0.5	2%	1.4	5%
E8	0.1	0%	0.4	1%	0.1	0%	0.9	3%	0.3	1%	1.0	3%
E9	0.1	0%	0.4	1%	0.1	0%	0.9	3%	0.3	1%	1.0	3%
E10	0.1	0%	0.5	2%	0.2	1%	0.9	3%	0.4	1%	1.1	4%
E11	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.5	2%	1.2	4%
E12	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.4	1%	1.2	4%
E13	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.5	2%	1.3	4%
E14	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.5	2%	1.3	4%
E15	0.1	0%	0.5	2%	0.2	1%	1.0	3%	0.4	1%	1.2	4%
E16	0.1	0%	0.3	1%	0.1	0%	1.0	3%	0.2	1%	1.1	4%
E17	0.1	0%	0.3	1%	0.1	0%	0.9	3%	0.2	1%	1.0	3%
E18	0.1	0%	0.3	1%	0.1	0%	0.9	3%	0.2	1%	1.0	3%
E19	0.1	0%	0.4	1%	0.1	0%	0.9	3%	0.3	1%	1.1	4%
E20	0.0	0%	0.2	1%	0.1	0%	0.9	3%	0.2	1%	1.0	3%
E21	0.0	0%	0.2	1%	0.1	0%	0.9	3%	0.2	1%	1.0	3%
E22	0.0	0%	0.2	1%	0.1	0%	0.9	3%	0.1	0%	0.9	3%
E23	0.0	0%	0.2	1%	0.1	0%	0.9	3%	0.2	1%	0.9	3%
E24	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.1	0%	0.9	3%
E25	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.1	0%	0.9	3%
E26	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.1	0%	0.9	3%
E27	0.1	0%	0.4	1%	0.2	1%	1.3	4%	0.4	1%	1.5	5%
E28	0.1	0%	0.6	2%	0.3	1%	1.0	3%	0.5	2%	1.2	4%
E29	0.2	1%	0.8	3%	0.3	1%	1.0	3%	0.6	2%	1.4	5%
E30	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.5	2%	1.2	4%
E31	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.5	2%	1.2	4%
E32	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.4	1%	1.2	4%

Table A11.5.5 Predicted SO_2 Concentrations at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 10m above building height

Emission Rate	2g/s				4g/s				8g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.1	0%	1.2	4%	0.2	1%	1.3	4%	0.3	1%	1.5	5%
E2	0.0	0%	0.0	0%	0.0	0%	0.7	2%	0.0	0%	0.7	2%
E3	0.1	0%	0.6	2%	0.3	1%	1.0	3%	0.5	2%	1.2	4%
E4	0.1	0%	0.3	1%	0.1	0%	1.1	4%	0.2	1%	1.2	4%
E5	0.1	0%	0.7	2%	0.3	1%	1.0	3%	0.5	2%	1.3	4%
E6	0.1	0%	0.5	2%	0.2	1%	1.0	3%	0.4	1%	1.2	4%
E7	0.1	0%	0.5	2%	0.2	1%	1.2	4%	0.4	1%	1.4	5%
E8	0.1	0%	0.3	1%	0.1	0%	0.9	3%	0.3	1%	1.0	3%
E9	0.1	0%	0.3	1%	0.1	0%	0.8	3%	0.2	1%	1.0	3%
E10	0.1	0%	0.5	2%	0.2	1%	0.9	3%	0.4	1%	1.0	3%
E11	0.1	0%	0.5	2%	0.2	1%	0.9	3%	0.4	1%	1.1	4%
E12	0.1	0%	0.5	2%	0.2	1%	1.0	3%	0.4	1%	1.2	4%
E13	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.5	2%	1.2	4%
E14	0.1	0%	0.5	2%	0.2	1%	1.0	3%	0.4	1%	1.2	4%
E15	0.1	0%	0.5	2%	0.2	1%	1.0	3%	0.4	1%	1.2	4%
E16	0.1	0%	0.3	1%	0.1	0%	0.9	3%	0.2	1%	1.1	4%
E17	0.1	0%	0.3	1%	0.1	0%	0.8	3%	0.2	1%	0.9	3%
E18	0.1	0%	0.3	1%	0.1	0%	0.9	3%	0.2	1%	1.0	3%
E19	0.1	0%	0.3	1%	0.1	0%	0.9	3%	0.3	1%	1.1	4%
E20	0.0	0%	0.2	1%	0.1	0%	0.9	3%	0.1	0%	1.0	3%
E21	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.2	1%	0.9	3%
E22	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.1	0%	0.9	3%
E23	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.1	0%	0.9	3%
E24	0.0	0%	0.1	0%	0.1	0%	0.8	3%	0.1	0%	0.9	3%

E25	0.0	0%	0.1	0%	0.1	0%	0.8	3%	0.1	0%	0.9	3%
E26	0.0	0%	0.1	0%	0.1	0%	0.8	3%	0.1	0%	0.8	3%
E27	0.1	0%	0.4	1%	0.2	1%	1.3	4%	0.3	1%	1.5	5%
E28	0.1	0%	0.6	2%	0.2	1%	0.9	3%	0.5	2%	1.2	4%
E29	0.1	0%	0.7	2%	0.3	1%	1.0	3%	0.6	2%	1.3	4%
E30	0.1	0%	0.5	2%	0.2	1%	0.9	3%	0.4	1%	1.1	4%
E31	0.1	0%	0.5	2%	0.2	1%	0.9	3%	0.4	1%	1.1	4%
E32	0.1	0%	0.5	2%	0.2	1%	0.9	3%	0.4	1%	1.1	4%

Table A11.5.6 Predicted SO_2 Concentrations at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 25m above building height

Emission Rate	2g/s				4g/s				8g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.1	0%	1.2	4%	0.1	0%	1.3	4%	0.2	1%	1.4	5%
E2	0.0	0%	0.0	0%	0.0	0%	0.7	2%	0.0	0%	0.7	2%
E3	0.1	0%	0.5	2%	0.2	1%	0.9	3%	0.4	1%	1.1	4%
E4	0.0	0%	0.2	1%	0.1	0%	1.1	4%	0.2	1%	1.2	4%
E5	0.1	0%	0.6	2%	0.2	1%	0.9	3%	0.4	1%	1.2	4%
E6	0.1	0%	0.4	1%	0.2	1%	1.0	3%	0.3	1%	1.1	4%
E7	0.1	0%	0.4	1%	0.2	1%	1.1	4%	0.3	1%	1.3	4%
E8	0.1	0%	0.3	1%	0.1	0%	0.8	3%	0.2	1%	0.9	3%
E9	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.2	1%	0.9	3%
E10	0.1	0%	0.4	1%	0.1	0%	0.8	3%	0.3	1%	1.0	3%
E11	0.1	0%	0.4	1%	0.2	1%	0.9	3%	0.3	1%	1.0	3%
E12	0.1	0%	0.4	1%	0.2	1%	0.9	3%	0.3	1%	1.1	4%
E13	0.1	0%	0.5	2%	0.2	1%	1.0	3%	0.4	1%	1.2	4%
E14	0.1	0%	0.5	2%	0.2	1%	1.0	3%	0.4	1%	1.2	4%
E15	0.1	0%	0.4	1%	0.2	1%	1.0	3%	0.3	1%	1.1	4%
E16	0.0	0%	0.2	1%	0.1	0%	0.9	3%	0.2	1%	1.0	3%
E17	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.2	1%	0.9	3%
E18	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.2	1%	0.9	3%
E19	0.1	0%	0.3	1%	0.1	0%	0.9	3%	0.2	1%	1.0	3%
E20	0.0	0%	0.1	0%	0.1	0%	0.9	3%	0.1	0%	0.9	3%
E21	0.0	0%	0.2	1%	0.1	0%	0.8	3%	0.1	0%	0.9	3%
E22	0.0	0%	0.1	0%	0.0	0%	0.8	3%	0.1	0%	0.9	3%
E23	0.0	0%	0.1	0%	0.0	0%	0.8	3%	0.1	0%	0.9	3%
E24	0.0	0%	0.1	0%	0.0	0%	0.8	3%	0.1	0%	0.9	3%
E25	0.0	0%	0.1	0%	0.0	0%	0.8	3%	0.1	0%	0.8	3%
E26	0.0	0%	0.1	0%	0.0	0%	0.8	3%	0.1	0%	0.8	3%
E27	0.1	0%	0.3	1%	0.1	0%	1.3	4%	0.2	1%	1.4	5%
E28	0.1	0%	0.5	2%	0.2	1%	0.9	3%	0.4	1%	1.1	4%
E29	0.1	0%	0.6	2%	0.2	1%	1.0	3%	0.5	2%	1.2	4%
E30	0.1	0%	0.4	1%	0.2	1%	0.9	3%	0.3	1%	1.0	3%
E31	0.1	0%	0.4	1%	0.2	1%	0.9	3%	0.3	1%	1.0	3%
E32	0.1	0%	0.4	1%	0.2	1%	0.9	3%	0.3	1%	1.0	3%

Nitrogen Deposition

Table A11.5.7 Predicted Nitrogen Deposition at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 3m above building height

Emission Rate	NOx 5g/s				NOx 10g/s				NOx 20g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.02	0%	19.4	97%	0.04	0%	19.4	97%	0.09	0%	19.4	97%

E2	0.00	0%	14.0	70%	0.00	0%	14.0	70%	0.00	0%	14.0	70%
E3	0.04	0%	14.0	70%	0.07	0%	14.0	70%	0.14	1%	14.1	71%
E4	0.02	0%	19.4	97%	0.03	0%	19.4	97%	0.06	0%	19.4	97%
E5	0.04	0%	14.0	70%	0.08	0%	14.0	70%	0.15	1%	14.1	71%
E6	0.03	0%	22.0	110 %	0.06	0%	22.0	110 %	0.11	1%	22.0	110 %
E7	0.03	0%	22.0	110 %	0.06	0%	22.0	110 %	0.12	1%	22.0	110 %
E8	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %	0.08	0%	22.0	110 %
E9	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %	0.07	0%	22.0	110 %
E10	0.03	0%	22.0	110 %	0.06	0%	22.0	110 %	0.11	1%	22.0	110 %
E11	0.03	0%	22.0	110 %	0.06	0%	22.0	110 %	0.12	1%	22.0	110 %
E12	0.03	0%	21.0	105 %	0.06	0%	21.0	105 %	0.11	1%	21.1	105 %
E13	0.03	0%	21.0	105 %	0.06	0%	21.0	105 %	0.12	1%	21.1	105 %
E14	0.03	0%	21.0	105 %	0.06	0%	21.0	105 %	0.12	1%	21.1	105 %
E15	0.03	0%	21.0	105 %	0.05	0%	21.0	105 %	0.10	1%	21.1	105 %
E16	0.02	0%	21.0	105 %	0.03	0%	21.0	105 %	0.06	0%	21.0	105 %
E17	0.02	0%	21.0	105 %	0.03	0%	21.0	105 %	0.06	0%	21.0	105 %
E18	0.01	0%	21.0	105 %	0.03	0%	21.0	105 %	0.06	0%	21.0	105 %
E19	0.02	0%	21.0	105 %	0.04	0%	21.0	105 %	0.07	0%	21.0	105 %
E20	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.04	0%	20.2	101 %
E21	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.05	0%	20.2	101 %
E22	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.04	0%	20.2	101 %
E23	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.04	0%	20.2	101 %
E24	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.03	0%	20.2	101 %
E25	0.01	0%	19.8	99%	0.02	0%	19.8	99%	0.03	0%	19.9	99%
E26	0.01	0%	19.8	99%	0.02	0%	19.8	99%	0.03	0%	19.9	99%
E27	0.02	0%	19.4	97%	0.04	0%	19.4	97%	0.09	0%	19.4	97%
E28	0.03	0%	14.0	70%	0.07	0%	14.0	70%	0.13	1%	14.1	70%
E29	0.04	0%	14.0	70%	0.08	0%	14.0	70%	0.16	1%	14.1	71%
E30	0.03	0%	22.0	110 %	0.06	0%	22.0	110 %	0.12	1%	22.0	110 %
E31	0.03	0%	22.0	110 %	0.06	0%	22.0	110 %	0.12	1%	22.0	110 %
E32	0.03	0%	22.0	110 %	0.06	0%	22.0	110 %	0.11	1%	22.0	110 %

Table A11.5.8 Predicted Nitrogen Deposition at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 10m above building height

Emission Rate	**NOx 5g/s**				**NOx 10g/s**				**NOx 20g/s**			
ID	**PC**	**%**	**PEC**	**%**	**PC**	**%**	**PEC**	**%**	**PC**	**%**	**PEC**	**%**

		PC		PEC		PC		PEC		PC		PEC
E1	0.02	0%	19.4	97%	0.04	0%	19.4	97%	0.08	0%	19.4	97%
E2	0.00	0%	14.0	70%	0.00	0%	14.0	70%	0.00	0%	14.0	70%
E3	0.03	0%	14.0	70%	0.06	0%	14.0	70%	0.13	1%	14.1	70%
E4	0.01	0%	19.4	97%	0.03	0%	19.4	97%	0.05	0%	19.4	97%
E5	0.03	0%	14.0	70%	0.07	0%	14.0	70%	0.14	1%	14.1	70%
E6	0.03	0%	22.0	110 %	0.05	0%	22.0	110 %	0.10	1%	22.0	110 %
E7	0.03	0%	22.0	110 %	0.05	0%	22.0	110 %	0.11	1%	22.0	110 %
E8	0.02	0%	21.9	110 %	0.03	0%	22.0	110 %	0.07	0%	22.0	110 %
E9	0.02	0%	21.9	110 %	0.03	0%	22.0	110 %	0.06	0%	22.0	110 %
E10	0.02	0%	22.0	110 %	0.05	0%	22.0	110 %	0.10	0%	22.0	110 %
E11	0.03	0%	22.0	110 %	0.05	0%	22.0	110 %	0.10	1%	22.0	110 %
E12	0.03	0%	21.0	105 %	0.05	0%	21.0	105 %	0.10	1%	21.1	105 %
E13	0.03	0%	21.0	105 %	0.06	0%	21.0	105 %	0.11	1%	21.1	105 %
E14	0.03	0%	21.0	105 %	0.05	0%	21.0	105 %	0.11	1%	21.1	105 %
E15	0.02	0%	21.0	105 %	0.05	0%	21.0	105 %	0.09	0%	21.1	105 %
E16	0.01	0%	21.0	105 %	0.03	0%	21.0	105 %	0.05	0%	21.0	105 %
E17	0.01	0%	21.0	105 %	0.03	0%	21.0	105 %	0.05	0%	21.0	105 %
E18	0.01	0%	21.0	105 %	0.03	0%	21.0	105 %	0.05	0%	21.0	105 %
E19	0.02	0%	21.0	105 %	0.03	0%	21.0	105 %	0.07	0%	21.0	105 %
E20	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.04	0%	20.2	101 %
E21	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.04	0%	20.2	101 %
E22	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.03	0%	20.2	101 %
E23	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.03	0%	20.2	101 %
E24	0.01	0%	20.2	101 %	0.01	0%	20.2	101 %	0.03	0%	20.2	101 %
E25	0.01	0%	19.8	99%	0.01	0%	19.8	99%	0.03	0%	19.8	99%
E26	0.01	0%	19.8	99%	0.01	0%	19.8	99%	0.03	0%	19.8	99%
E27	0.02	0%	19.4	97%	0.04	0%	19.4	97%	0.08	0%	19.4	97%
E28	0.03	0%	14.0	70%	0.06	0%	14.0	70%	0.12	1%	14.1	70%
E29	0.04	0%	14.0	70%	0.07	0%	14.0	70%	0.15	1%	14.1	71%
E30	0.03	0%	22.0	110 %	0.05	0%	22.0	110 %	0.10	1%	22.0	110 %
E31	0.03	0%	22.0	110 %	0.05	0%	22.0	110 %	0.10	1%	22.0	110 %
E32	0.02	0%	22.0	110 %	0.05	0%	22.0	110 %	0.10	0%	22.0	110 %

Table A11.5.9 Predicted Nitrogen Deposition at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 25m above building height

Emission	NOx 5g/s	NOx 10g/s	NOx 20g/s

Rate												
ID	**PC**	**% PC**	**PEC**	**% PEC**	**PC**	**% PC**	**PEC**	**% PEC**	**PC**	**% PC**	**PEC**	**% PEC**
E1	0.02	0%	19.4	97%	0.03	0%	19.4	97%	0.06	0%	19.4	97%
E2	0.00	0%	14.0	70%	0.00	0%	14.0	70%	0.00	0%	14.0	70%
E3	0.03	0%	14.0	70%	0.05	0%	14.0	70%	0.11	1%	14.1	70%
E4	0.01	0%	19.4	97%	0.02	0%	19.4	97%	0.04	0%	19.4	97%
E5	0.03	0%	14.0	70%	0.06	0%	14.0	70%	0.11	1%	14.1	70%
E6	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %	0.08	0%	22.0	110 %
E7	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %	0.09	0%	22.0	110 %
E8	0.01	0%	21.9	110 %	0.03	0%	22.0	110 %	0.05	0%	22.0	110 %
E9	0.01	0%	21.9	110 %	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %
E10	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %	0.07	0%	22.0	110 %
E11	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %	0.08	0%	22.0	110 %
E12	0.02	0%	21.0	105 %	0.04	0%	21.0	105 %	0.09	0%	21.1	105 %
E13	0.02	0%	21.0	105 %	0.05	0%	21.0	105 %	0.10	0%	21.1	105 %
E14	0.02	0%	21.0	105 %	0.05	0%	21.0	105 %	0.09	0%	21.1	105 %
E15	0.02	0%	21.0	105 %	0.04	0%	21.0	105 %	0.08	0%	21.0	105 %
E16	0.01	0%	21.0	105 %	0.02	0%	21.0	105 %	0.04	0%	21.0	105 %
E17	0.01	0%	21.0	105 %	0.02	0%	21.0	105 %	0.04	0%	21.0	105 %
E18	0.01	0%	21.0	105 %	0.02	0%	21.0	105 %	0.04	0%	21.0	105 %
E19	0.01	0%	21.0	105 %	0.03	0%	21.0	105 %	0.05	0%	21.0	105 %
E20	0.01	0%	20.2	101 %	0.01	0%	20.2	101 %	0.03	0%	20.2	101 %
E21	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %	0.03	0%	20.2	101 %
E22	0.01	0%	20.2	101 %	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %
E23	0.01	0%	20.2	101 %	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %
E24	0.01	0%	20.2	101 %	0.01	0%	20.2	101 %	0.02	0%	20.2	101 %
E25	0.00	0%	19.8	99%	0.01	0%	19.8	99%	0.02	0%	19.8	99%
E26	0.01	0%	19.8	99%	0.01	0%	19.8	99%	0.02	0%	19.8	99%
E27	0.02	0%	19.4	97%	0.03	0%	19.4	97%	0.06	0%	19.4	97%
E28	0.02	0%	14.0	70%	0.05	0%	14.0	70%	0.10	0%	14.1	70%
E29	0.03	0%	14.0	70%	0.06	0%	14.0	70%	0.12	1%	14.1	70%
E30	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %	0.08	0%	22.0	110 %
E31	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %	0.08	0%	22.0	110 %
E32	0.02	0%	21.9	110 %	0.04	0%	22.0	110 %	0.08	0%	22.0	110 %

Acid Deposition

Table A11.5.10 Predicted Acid Deposition at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 3m above building height

Emission Rate	NOx 5g/s; SO2 2g/s		NOx 10g/s; SO2 4g/s		NOx 20g/s; SO2 8g/s	
ID	PC	PEC	PC	PEC	PC	PEC
E12	0.015	1.63	0.030	1.65	0.060	1.68
E13	0.017	1.63	0.034	1.65	0.068	1.68
E14	0.016	1.63	0.032	1.65	0.065	1.68
E15	0.014	1.63	0.028	1.64	0.055	1.67
E16	0.008	1.63	0.016	1.63	0.033	1.65
E17	0.008	1.63	0.017	1.63	0.033	1.65
E18	0.008	1.62	0.016	1.63	0.032	1.65
E19	0.010	1.63	0.020	1.64	0.040	1.66
E20	0.006	1.56	0.012	1.57	0.023	1.58
E21	0.006	1.56	0.012	1.57	0.025	1.58
E22	0.005	1.56	0.010	1.57	0.020	1.58
E23	0.005	1.56	0.010	1.57	0.021	1.58
E24	0.005	1.56	0.009	1.57	0.018	1.58
E25	0.004	1.53	0.008	1.54	0.017	1.54
E26	0.005	1.53	0.009	1.54	0.018	1.55

Table A11.5.11 Predicted Acid Deposition at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 10m above building height

Emission Rate	NOx 5g/s; SO2 2g/s		NOx 10g/s; SO2 4g/s		NOx 20g/s; SO2 8g/s	
ID	PC	PEC	PC	PEC	PC	PEC
E12	0.014	1.63	0.028	1.64	0.055	1.67
E13	0.016	1.63	0.031	1.65	0.062	1.68
E14	0.015	1.63	0.030	1.65	0.059	1.68
E15	0.013	1.63	0.025	1.64	0.050	1.67
E16	0.007	1.62	0.014	1.63	0.029	1.65
E17	0.007	1.62	0.015	1.63	0.030	1.65
E18	0.007	1.62	0.014	1.63	0.029	1.65
E19	0.009	1.63	0.018	1.64	0.036	1.65
E20	0.005	1.56	0.010	1.57	0.020	1.58
E21	0.005	1.56	0.011	1.57	0.021	1.58
E22	0.004	1.56	0.009	1.57	0.017	1.57
E23	0.005	1.56	0.009	1.57	0.018	1.58
E24	0.004	1.56	0.008	1.57	0.016	1.57
E25	0.004	1.53	0.007	1.54	0.015	1.54
E26	0.004	1.53	0.008	1.54	0.016	1.54

Table A11.5.12 Predicted Acid Deposition at Ecological Receptors in 2032 from the proposed energy plant with a flue height of 25m above building height

Emission Rate	NOx 5g/s; SO2 2g/s		NOx 10g/s; SO2 4g/s		NOx 20g/s; SO2 8g/s	
ID	PC	PEC	PC	PEC	PC	PEC
E12	0.013	1.63	0.025	1.64	0.048	1.66
E13	0.011	1.63	0.022	1.64	0.053	1.67
E14	0.007	1.62	0.013	1.63	0.050	1.67
E15	0.007	1.62	0.013	1.63	0.042	1.66
E16	0.006	1.62	0.012	1.63	0.023	1.64
E17	0.007	1.62	0.014	1.63	0.024	1.64
E18	0.004	1.62	0.008	1.63	0.023	1.64
E19	0.005	1.62	0.009	1.63	0.028	1.65
E20	0.003	1.56	0.007	1.56	0.015	1.57
E21	0.003	1.56	0.007	1.56	0.017	1.57

E22	0.003	1.56	0.006	1.56	0.013	1.57
E23	0.003	1.56	0.005	1.56	0.013	1.57
E24	0.003	1.56	0.006	1.56	0.012	1.57
E25	0.008	1.54	0.015	1.54	0.011	1.54
E26	0.012	1.54	0.023	1.55	0.012	1.54

Industrial Plant

NOx

Table A11.5.13 Predicted NOx Concentrations at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 10m above building height

Emission Rate	10g/s				20g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.35	1%	6.86	23%	0.70	2%	7.21	24%
E2	0.49	2%	4.77	16%	0.99	3%	5.26	18%
E3	0.59	2%	4.92	16%	1.19	4%	5.51	18%
E4	0.24	1%	6.08	20%	0.47	2%	6.32	21%
E5	0.63	2%	4.95	17%	1.26	4%	5.59	19%
E6	0.48	2%	5.41	18%	0.96	3%	5.89	20%
E7	0.52	2%	5.33	18%	1.03	3%	5.85	19%
E8	0.30	1%	4.78	16%	0.59	2%	5.08	17%
E9	0.26	1%	4.40	15%	0.52	2%	4.66	16%
E10	0.43	1%	4.41	15%	0.85	3%	4.84	16%
E11	0.47	2%	4.75	16%	0.94	3%	5.22	17%
E12	0.48	2%	4.75	16%	0.96	3%	5.23	17%
E13	0.54	2%	4.81	16%	1.09	4%	5.35	18%
E14	0.52	2%	4.84	16%	1.04	3%	5.35	18%
E15	0.44	1%	4.87	16%	0.87	3%	5.31	18%
E16	0.24	1%	4.54	15%	0.48	2%	4.78	16%
E17	0.25	1%	4.41	15%	0.49	2%	4.65	16%
E18	0.24	1%	4.51	15%	0.47	2%	4.75	16%
E19	0.30	1%	4.48	15%	0.59	2%	4.77	16%
E20	0.00	0%	4.28	14%	0.01	0%	4.28	14%
E21	0.17	1%	4.31	14%	0.34	1%	4.49	15%
E22	0.14	0%	4.24	14%	0.28	1%	4.38	15%
E23	0.15	0%	4.38	15%	0.29	1%	4.52	15%
E24	0.13	0%	4.36	15%	0.26	1%	4.49	15%
E25	0.12	0%	4.45	15%	0.24	1%	4.57	15%
E26	0.13	0%	4.22	14%	0.25	1%	4.34	14%
E27	0.35	1%	6.86	23%	0.70	2%	7.21	24%
E28	0.53	2%	4.80	16%	1.06	4%	5.33	18%
E29	0.69	2%	5.01	17%	1.37	5%	5.70	19%
E30	0.47	2%	4.75	16%	0.94	3%	5.22	17%
E31	0.47	2%	4.75	16%	0.94	3%	5.22	17%
E32	0.46	2%	4.83	16%	0.91	3%	5.29	18%
E33	2.03	7%	7.54	25%	4.06	14%	9.57	32%
E34	2.07	7%	7.57	25%	4.13	14%	9.64	32%
E35	1.17	4%	9.57	32%	2.35	8%	10.74	36%
E36	1.15	4%	7.24	24%	2.30	8%	8.39	28%
E37	1.82	6%	6.85	23%	3.65	12%	8.68	29%
E38	0.93	3%	5.39	18%	1.85	6%	6.32	21%
E39	0.72	2%	5.19	17%	1.44	5%	5.90	20%
E40	0.70	2%	5.02	17%	1.40	5%	5.72	19%
E41	0.66	2%	4.98	17%	1.32	4%	5.64	19%
E42	0.58	2%	4.90	16%	1.16	4%	5.48	18%

Table A11.5.14 Predicted NOx Concentrations at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 25m above building height

Emission Rate	10g/s				20g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.28	1%	6.79	23%	0.56	2%	7.06	24%
E2	0.40	1%	4.68	16%	0.80	3%	5.08	17%
E3	0.49	2%	4.81	16%	0.98	3%	5.30	18%
E4	0.18	1%	6.02	20%	0.35	1%	6.20	21%
E5	0.52	2%	4.84	16%	1.04	3%	5.36	18%
E6	0.40	1%	5.33	18%	0.79	3%	5.72	19%
E7	0.42	1%	5.23	17%	0.84	3%	5.65	19%
E8	0.23	1%	4.72	16%	0.46	2%	4.95	16%
E9	0.19	1%	4.33	14%	0.38	1%	4.52	15%
E10	0.33	1%	4.32	14%	0.67	2%	4.65	16%
E11	0.37	1%	4.65	15%	0.74	2%	5.02	17%
E12	0.42	1%	4.69	16%	0.84	3%	5.11	17%
E13	0.47	2%	4.73	16%	0.93	3%	5.20	17%
E14	0.44	1%	4.76	16%	0.88	3%	5.20	17%
E15	0.37	1%	4.80	16%	0.74	2%	5.18	17%
E16	0.19	1%	4.49	15%	0.38	1%	4.68	16%
E17	0.21	1%	4.37	15%	0.41	1%	4.57	15%
E18	0.20	1%	4.47	15%	0.39	1%	4.67	16%
E19	0.24	1%	4.42	15%	0.47	2%	4.65	16%
E20	0.00	0%	4.28	14%	0.01	0%	4.28	14%
E21	0.14	0%	4.28	14%	0.28	1%	4.42	15%
E22	0.11	0%	4.22	14%	0.22	1%	4.33	14%
E23	0.11	0%	4.35	14%	0.22	1%	4.46	15%
E24	0.10	0%	4.33	14%	0.19	1%	4.43	15%
E25	0.09	0%	4.42	15%	0.17	1%	4.51	15%
E26	0.10	0%	4.19	14%	0.19	1%	4.28	14%
E27	0.28	1%	6.79	23%	0.56	2%	7.06	24%
E28	0.43	1%	4.71	16%	0.86	3%	5.14	17%
E29	0.57	2%	4.90	16%	1.15	4%	5.47	18%
E30	0.37	1%	4.65	16%	0.74	2%	5.02	17%
E31	0.37	1%	4.65	15%	0.74	2%	5.02	17%
E32	0.36	1%	4.74	16%	0.72	2%	5.10	17%
E33	1.78	6%	7.29	24%	3.56	12%	9.07	30%
E34	1.81	6%	7.32	24%	3.63	12%	9.13	30%
E35	1.02	3%	9.42	31%	2.05	7%	10.44	35%
E36	1.00	3%	7.09	24%	2.01	7%	8.10	27%
E37	1.61	5%	6.64	22%	3.22	11%	8.24	27%
E38	0.82	3%	5.28	18%	1.63	5%	6.10	20%
E39	0.63	2%	5.10	17%	1.26	4%	5.72	19%
E40	0.59	2%	4.91	16%	1.17	4%	5.49	18%
E41	0.55	2%	4.87	16%	1.10	4%	5.42	18%
E42	0.47	2%	4.80	16%	0.95	3%	5.27	18%

SO_2

Table A11.5.15 Predicted SO_2 Concentrations at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 10m above building height

Emission Rate	5g/s				10g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.17	1%	1.34	7%	0.35	2%	1.52	8%
E2	0.25	1%	0.96	5%	0.49	2%	1.20	6%
E3	0.30	1%	1.02	5%	0.59	3%	1.31	7%
E4	0.12	1%	1.12	6%	0.24	1%	1.24	6%

E5	0.32	2%	1.04	5%	0.63	3%	1.35	7%
E6	0.24	1%	1.05	5%	0.48	2%	1.29	6%
E7	0.26	1%	1.21	6%	0.52	3%	1.47	7%
E8	0.15	1%	0.89	4%	0.30	1%	1.04	5%
E9	0.13	1%	0.85	4%	0.26	1%	0.98	5%
E10	0.21	1%	0.87	4%	0.43	2%	1.09	5%
E11	0.23	1%	0.95	5%	0.47	2%	1.19	6%
E12	0.24	1%	1.01	5%	0.48	2%	1.25	6%
E13	0.27	1%	1.04	5%	0.54	3%	1.31	7%
E14	0.26	1%	1.05	5%	0.52	3%	1.31	7%
E15	0.22	1%	1.05	5%	0.44	2%	1.27	6%
E16	0.12	1%	0.96	5%	0.24	1%	1.08	5%
E17	0.12	1%	0.85	4%	0.25	1%	0.98	5%
E18	0.12	1%	0.88	4%	0.24	1%	1.00	5%
E19	0.15	1%	0.94	5%	0.30	1%	1.09	5%
E20	0.00	0%	0.82	4%	0.00	0%	0.82	4%
E21	0.09	0%	0.86	4%	0.17	1%	0.94	5%
E22	0.07	0%	0.85	4%	0.14	1%	0.92	5%
E23	0.07	0%	0.85	4%	0.15	1%	0.93	5%
E24	0.06	0%	0.84	4%	0.13	1%	0.91	5%
E25	0.06	0%	0.83	4%	0.12	1%	0.89	4%
E26	0.06	0%	0.79	4%	0.13	1%	0.86	4%
E27	0.17	1%	1.34	7%	0.35	2%	1.52	8%
E28	0.26	1%	0.97	5%	0.53	3%	1.24	6%
E29	0.34	1.7%	1.06	5%	0.69	3.4%	1.41	7%
E30	0.24	1%	0.96	5%	0.47	2%	1.19	6%
E31	0.24	1%	0.96	5%	0.47	2%	1.19	6%
E32	0.23	1%	0.96	5%	0.46	2%	1.19	6%

Table A11.5.16 Predicted SO_2 Concentrations at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 25m above building height

Emission Rate	**5g/s**				**10g/s**			
ID	**PC**	**% PC**	**PEC**	**% PEC**	**PC**	**% PC**	**PEC**	**% PEC**
E1	0.14	1%	1.31	7%	0.28	1%	1.45	7%
E2	0.20	1%	0.91	5%	0.40	2%	1.11	6%
E3	0.24	1%	0.96	5%	0.49	2%	1.21	6%
E4	0.09	0%	1.09	5%	0.18	1%	1.18	6%
E5	0.26	1%	0.98	5%	0.52	3%	1.24	6%
E6	0.20	1%	1.01	5%	0.40	2%	1.21	6%
E7	0.21	1%	1.16	6%	0.42	2%	1.37	7%
E8	0.12	1%	0.86	4%	0.23	1%	0.97	5%
E9	0.10	0%	0.82	4%	0.19	1%	0.91	5%
E10	0.17	1%	0.83	4%	0.33	2%	0.99	5%
E11	0.19	1%	0.91	5%	0.37	2%	1.09	5%
E12	0.21	1%	0.98	5%	0.42	2%	1.19	6%
E13	0.23	1%	1.00	5%	0.47	2%	1.24	6%
E14	0.22	1%	1.01	5%	0.44	2%	1.23	6%
E15	0.19	1%	1.02	5%	0.37	2%	1.20	6%
E16	0.10	0%	0.94	5%	0.19	1%	1.03	5%
E17	0.10	1%	0.83	4%	0.21	1%	0.94	5%
E18	0.10	0%	0.86	4%	0.20	1%	0.96	5%
E19	0.12	1%	0.91	5%	0.24	1%	1.03	5%
E20	0.00	0%	0.82	4%	0.00	0%	0.82	4%
E21	0.07	0%	0.84	4%	0.14	1%	0.91	5%
E22	0.06	0%	0.84	4%	0.11	1%	0.89	4%
E23	0.06	0%	0.84	4%	0.11	1%	0.89	4%
E24	0.05	0%	0.83	4%	0.10	0%	0.88	4%
E25	0.04	0%	0.81	4%	0.09	0%	0.86	4%

E26	0.05	0%	0.78	4%	0.10	0%	0.83	4%
E27	0.14	1%	1.31	7%	0.28	1%	1.45	7%
E28	0.22	1%	0.93	5%	0.43	2%	1.14	6%
E29	0.29	1.4%	1.01	5%	0.57	2.9%	1.29	6%
E30	0.19	1%	0.91	5%	0.37	2%	1.09	5%
E31	0.19	1%	0.91	5%	0.37	2%	1.09	5%
E32	0.18	1%	0.91	5%	0.36	2%	1.09	5%

Ammonia

Table A11.5.17 Predicted Ammonia Concentration at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 10m above building height

Emission Rate	0.65g/s			
ID	PC	% PC	PEC	% PEC
E1	0.023	1%	2.963	99%
E2	0.032	1%	1.922	64%
E3	0.039	1%	1.929	64%
E4	0.015	1%	2.955	99%
E5	0.041	1%	1.931	64%
E6	0.031	1%	3.531	118%
E7	0.034	1%	3.534	118%
E8	0.019	1%	3.519	117%
E9	0.017	1%	3.517	117%
E10	0.028	1%	3.528	118%
E11	0.031	1%	3.531	118%
E12	0.031	1%	3.241	108%
E13	0.035	1%	3.245	108%
E14	0.034	1%	3.244	108%
E15	0.028	1%	3.238	108%
E16	0.015	1%	3.225	108%
E17	0.016	1%	3.226	108%
E18	0.015	1%	3.225	108%
E19	0.019	1%	3.229	108%
E20	0.000	0%	2.970	99%
E21	0.011	0%	2.981	99%
E22	0.009	0%	2.979	99%
E23	0.009	0%	2.979	99%
E24	0.008	0%	2.978	99%
E25	0.008	0%	3.038	101%
E26	0.008	0%	3.038	101%
E27	0.023	1%	2.963	99%
E28	0.034	1%	1.924	64%
E29	0.045	1%	1.935	64%
E30	0.031	1%	3.531	118%
E31	0.031	1%	3.531	118%
E32	0.030	1%	3.530	118%

Table A11.5.18 Predicted Ammonia Concentration at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 25m above building height

Emission Rate	0.65/s			
ID	PC	% PC	PEC	% PEC
E1	0.018	1%	2.958	99%
E2	0.026	1%	1.916	64%
E3	0.032	1%	1.922	64%
E4	0.011	0%	2.951	98%
E5	0.034	1%	1.924	64%
E6	0.026	1%	3.526	118%
E7	0.027	1%	3.527	118%

E8	0.015	0%	3.515	117%
E9	0.012	0%	3.512	117%
E10	0.022	1%	3.522	117%
E11	0.024	1%	3.524	117%
E12	0.027	1%	3.237	108%
E13	0.030	1%	3.240	108%
E14	0.029	1%	3.239	108%
E15	0.024	1%	3.234	108%
E16	0.012	0%	3.222	107%
E17	0.013	0%	3.223	107%
E18	0.013	0%	3.223	107%
E19	0.015	1%	3.225	108%
E20	0.000	0%	2.970	99%
E21	0.009	0%	2.979	99%
E22	0.007	0%	2.977	99%
E23	0.007	0%	2.977	99%
E24	0.006	0%	2.976	99%
E25	0.006	0%	3.036	101%
E26	0.006	0%	3.036	101%
E27	0.018	1%	2.958	99%
E28	0.028	1%	1.918	64%
E29	0.037	1%	1.927	64%
E30	0.024	1%	3.524	117%
E31	0.024	1%	3.524	117%
E32	0.023	1%	3.523	117%

Nitrogen Deposition

Table A11.5.19 Predicted Nitrogen Deposition at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 10m above building height

Emission Rate	NOx 10g/s; NH3 0.65g/s				NOx 20g/s; NH3 0.65g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.2	1%	19.5	97%	0.2	1%	19.5	98%
E2	0.2	1%	14.2	71%	0.3	1%	14.2	71%
E3	0.3	1%	14.2	71%	0.3	2%	14.3	71%
E4	0.1	1%	19.4	97%	0.1	1%	19.5	97%
E5	0.3	1%	14.2	71%	0.3	2%	14.3	71%
E6	0.2	1%	22.1	111%	0.3	1%	22.2	111%
E7	0.2	1%	22.2	111%	0.3	1%	22.2	111%
E8	0.1	1%	22.1	110%	0.2	1%	22.1	110%
E9	0.1	1%	22.0	110%	0.1	1%	22.1	110%
E10	0.2	1%	22.1	111%	0.2	1%	22.2	111%
E11	0.2	1%	22.1	111%	0.3	1%	22.2	111%
E12	0.2	1%	21.2	106%	0.3	1%	21.2	106%
E13	0.2	1%	21.2	106%	0.3	1%	21.3	106%
E14	0.2	1%	21.2	106%	0.3	1%	21.3	106%
E15	0.2	1%	21.2	106%	0.2	1%	21.2	106%
E16	0.1	1%	21.1	105%	0.1	1%	21.1	106%
E17	0.1	1%	21.1	105%	0.1	1%	21.1	106%
E18	0.1	1%	21.1	105%	0.1	1%	21.1	105%
E19	0.1	1%	21.1	106%	0.2	1%	21.1	106%
E20	0.0	0%	20.2	101%	0.0	0%	20.2	101%
E21	0.1	0%	20.2	101%	0.1	0%	20.2	101%
E22	0.1	0%	20.2	101%	0.1	0%	20.2	101%
E23	0.1	0%	20.2	101%	0.1	0%	20.2	101%
E24	0.1	0%	20.2	101%	0.1	0%	20.2	101%
E25	0.1	0%	19.9	99%	0.1	0%	19.9	99%
E26	0.1	0%	19.9	99%	0.1	0%	19.9	99%

E27	0.2	1%	19.5	97%	0.2	1%	19.5	98%
E28	0.2	1%	14.2	71%	0.3	1%	14.2	71%
E29	0.3	1.5%	14.3	71%	0.4	1.9%	14.3	72%
E30	0.2	1%	22.1	111%	0.3	1%	22.2	111%
E31	0.2	1%	22.1	111%	0.3	1%	22.2	111%
E32	0.2	1%	22.1	111%	0.2	1%	22.2	111%

Table A11.5.20 Predicted Nitrogen Deposition at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 25m above building height

Emission Rate	NOx 10g/s; NH3 0.65g/s				NOx 20g/s; NH3 0.65g/s			
ID	PC	% PC	PEC	% PEC	PC	% PC	PEC	% PEC
E1	0.1	1%	19.5	97%	0.1	1%	19.5	97%
E2	0.2	1%	14.1	71%	0.2	1%	14.2	71%
E3	0.2	1%	14.2	71%	0.3	1%	14.2	71%
E4	0.1	0%	19.4	97%	0.1	0%	19.4	97%
E5	0.2	1%	14.2	71%	0.3	1%	14.2	71%
E6	0.2	1%	22.1	111%	0.2	1%	22.1	111%
E7	0.2	1%	22.1	111%	0.2	1%	22.2	111%
E8	0.1	1%	22.0	110%	0.1	1%	22.1	110%
E9	0.1	0%	22.0	110%	0.1	1%	22.0	110%
E10	0.1	1%	22.1	110%	0.2	1%	22.1	111%
E11	0.2	1%	22.1	110%	0.2	1%	22.1	111%
E12	0.2	1%	21.2	106%	0.2	1%	21.2	106%
E13	0.2	1%	21.2	106%	0.3	1%	21.2	106%
E14	0.2	1%	21.2	106%	0.2	1%	21.2	106%
E15	0.2	1%	21.1	106%	0.2	1%	21.2	106%
E16	0.1	0%	21.1	105%	0.1	1%	21.1	105%
E17	0.1	0%	21.1	105%	0.1	1%	21.1	105%
E18	0.1	0%	21.1	105%	0.1	1%	21.1	105%
E19	0.1	1%	21.1	105%	0.1	1%	21.1	105%
E20	0.0	0%	20.2	101%	0.0	0%	20.2	101%
E21	0.1	0%	20.2	101%	0.1	0%	20.2	101%
E22	0.0	0%	20.2	101%	0.1	0%	20.2	101%
E23	0.0	0%	20.2	101%	0.1	0%	20.2	101%
E24	0.0	0%	20.2	101%	0.1	0%	20.2	101%
E25	0.0	0%	19.9	99%	0.0	0%	19.9	99%
E26	0.0	0%	19.9	99%	0.1	0%	19.9	99%
E27	0.1	1%	19.5	97%	0.1	1%	19.5	97%
E28	0.2	1%	14.1	71%	0.2	1%	14.2	71%
E29	0.3	1.3%	14.2	71%	0.3	2%	14.3	71%
E30	0.2	1%	22.1	110%	0.2	1%	22.1	111%
E31	0.2	1%	22.1	110%	0.2	1%	22.1	111%
E32	0.2	1%	22.1	110%	0.2	1%	22.1	111%

Acid Deposition

Table A11.5.21 Predicted Acid Deposition at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 3m above building height

Emission Rate	NOx 10g/s; NH3 0.65g/s; SO2 5g/s		NOx 20g/s; NH3 0.65g/s; SO2 10g/s	
ID	PC	PEC	PC	PEC
E12	0.044	1.66	0.076	1.69
E13	0.049	1.67	0.085	1.70
E14	0.047	1.66	0.081	1.70
E15	0.039	1.66	0.068	1.69
E16	0.021	1.64	0.037	1.65
E17	0.022	1.64	0.039	1.66
E18	0.021	1.64	0.037	1.65
E19	0.027	1.64	0.047	1.66

E20	0.000	1.56	0.001	1.56
E21	0.016	1.57	0.027	1.58
E22	0.013	1.57	0.022	1.58
E23	0.013	1.57	0.023	1.58
E24	0.012	1.57	0.020	1.58
E25	0.011	1.54	0.018	1.55
E26	0.011	1.54	0.020	1.55

Table A11.5.22 Predicted Acid Deposition at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 10m above building height

Emission Rate	NOx 10g/s; NH3 0.65g/s; SO2 5g/s		NOx 20g/s; NH3 0.65g/s; SO2 10g/s	
ID	PC	PEC	PC	PEC
E12	0.038	1.65	0.066	1.68
E13	0.042	1.66	0.073	1.69
E14	0.040	1.66	0.069	1.69
E15	0.034	1.65	0.058	1.68
E16	0.017	1.63	0.030	1.65
E17	0.019	1.64	0.032	1.65
E18	0.018	1.63	0.031	1.65
E19	0.021	1.64	0.037	1.65
E20	0.000	1.56	0.001	1.56
E21	0.012	1.57	0.022	1.58
E22	0.010	1.57	0.017	1.57
E23	0.010	1.57	0.018	1.57
E24	0.009	1.57	0.015	1.57
E25	0.008	1.54	0.014	1.54
E26	0.009	1.54	0.015	1.54

Table A11.5.23 Predicted Acid Deposition at Ecological Receptors in 2032 from the proposed industrial plant with a flue height of 25m above building height

Emission Rate	NOx 5g/s; SO2 2g/s		NOx 10g/s; SO2 4g/s		NOx 20g/s; SO2 8g/s	
ID	PC	PEC	PC	PEC	PC	PEC
E12	0.013	1.63	0.025	1.64	0.048	1.66
E13	0.011	1.63	0.022	1.64	0.053	1.67
E14	0.007	1.62	0.013	1.63	0.050	1.67
E15	0.007	1.62	0.013	1.63	0.042	1.66
E16	0.006	1.62	0.012	1.63	0.023	1.64
E17	0.007	1.62	0.014	1.63	0.024	1.64
E18	0.004	1.62	0.008	1.63	0.023	1.64
E19	0.005	1.62	0.009	1.63	0.028	1.65
E20	0.003	1.56	0.007	1.56	0.015	1.57
E21	0.003	1.56	0.007	1.56	0.017	1.57
E22	0.003	1.56	0.006	1.56	0.013	1.57
E23	0.003	1.56	0.005	1.56	0.013	1.57
E24	0.003	1.56	0.006	1.56	0.012	1.57
E25	0.008	1.54	0.015	1.54	0.011	1.54
E26	0.012	1.54	0.023	1.55	0.012	1.54

Human Health Receptors

Energy Plant

Table A11.5.23 Predicted Process Contributions at Human Receptors in 2032 from the proposed energy plant

Emission Rate	NOx 5g/s				NOx 10g/s				NOx 20g/s			
ID	PC	%	PEC	%	PC	%	PEC	%	PC	%	PEC	%

		PC		PEC		PC		PEC		PC		PEC
3m Height												
R1	0.6	1%	5.5	14%	1.1	3%	6.0	15%	2.3	6%	7.2	18%
R2	0.7	2%	5.6	14%	1.4	4%	6.3	16%	2.8	7%	7.7	19%
R3	1.1	3%	5.7	14%	2.2	6%	6.8	17%	4.5	11%	9.0	23%
R4	1.0	3%	5.6	14%	2.1	5%	6.7	17%	4.1	10%	8.7	22%
R5	0.5	1%	6.0	15%	0.9	2%	6.4	16%	1.8	5%	7.3	18%
R6	0.3	1%	8.5	21%	0.5	1%	8.7	22%	1.1	3%	9.2	23%
R7	0.2	1%	5.7	14%	0.5	1%	6.0	15%	1.0	2%	6.5	16%
P1	0.6	2%	6.1	15%	1.2	3%	6.7	17%	2.4	6%	7.9	20%
P2	1.2	3%	5.8	15%	2.5	6%	7.0	18%	4.9	12%	9.5	24%
P3	0.9	2%	5.8	14%	1.8	4%	6.7	17%	3.6	9%	8.5	21%
10m Height												
R1	0.5	1%	5.4	14%	1.1	3%	6.0	15%	2.1	5%	7.0	18%
R2	0.7	2%	5.6	14%	1.3	3%	6.2	16%	2.6	7%	7.5	19%
R3	1.0	3%	5.6	14%	2.1	5%	6.7	17%	4.1	10%	8.7	22%
R4	1.0	2%	5.6	14%	1.9	5%	6.5	16%	3.9	10%	8.5	21%
R5	0.4	1%	5.9	15%	0.8	2%	6.4	16%	1.7	4%	7.2	18%
R6	0.2	1%	8.4	21%	0.5	1%	8.7	22%	1.0	2%	9.2	23%
R7	0.2	1%	5.7	14%	0.4	1%	5.9	15%	0.9	2%	6.4	16%
P1	0.6	1%	6.1	15%	1.1	3%	6.6	17%	2.2	6%	7.8	19%
P2	1.2	3%	5.7	14%	2.3	6%	6.9	17%	4.6	12%	9.2	23%
P3	0.8	2%	5.7	14%	1.7	4%	6.6	16%	3.3	8%	8.2	21%
25m Height												
R1	0.5	1%	5.4	13%	0.9	2%	5.8	15%	1.9	5%	6.8	17%
R2	0.6	1%	5.5	14%	1.2	3%	6.1	15%	2.3	6%	7.2	18%
R3	0.9	2%	5.5	14%	1.8	5%	6.4	16%	3.6	9%	8.2	20%
R4	0.9	2%	5.4	14%	1.7	4%	6.3	16%	3.4	9%	8.0	20%
R5	0.4	1%	5.9	15%	0.7	2%	6.2	16%	1.5	4%	7.0	17%
R6	0.2	1%	8.4	21%	0.4	1%	8.6	22%	0.8	2%	9.0	23%
R7	0.2	0%	5.7	14%	0.4	1%	5.9	15%	0.8	2%	6.3	16%
P1	0.5	1%	6.0	15%	1.0	2%	6.5	16%	2.0	5%	7.5	19%
P2	1.0	3%	5.6	14%	2.0	5%	6.6	17%	4.1	10%	8.7	22%
P3	0.7	2%	5.6	14%	1.5	4%	6.4	16%	2.9	7%	7.8	20%

Industrial Plant

NO_2

Table A11.5.24: Predicted NO_2 Process Contributions at Human Receptors in 2032 from the proposed industrial plant

Emission Rate	NOx 10g/s		NOx 20g/s		NOx 30g/s	
ID	PC	% PC	PC	% PC	PC	% PC
Flue Height	10m Height					
R1	1.00	2.5%	2.01	5.0%	3.01	7.5%
R2	1.22	3.0%	0.61	1.5%	3.65	9.1%
R3	2.24	5.6%	1.12	2.8%	6.72	16.8%
R4	1.83	4.6%	0.92	2.3%	5.50	13.7%
R5	0.88	2.2%	0.44	1.1%	2.63	6.6%
R6	0.47	1.2%	0.23	0.6%	1.40	3.5%
R7	0.45	1.1%	0.22	0.6%	1.34	3.3%
P1	1.14	2.8%	0.57	1.4%	3.41	8.5%

P2	2.65	6.6%	1.32	3.3%	7.94	19.8%
P3	1.45	3.6%	0.73	1.8%	4.36	10.9%
Flue Height	**25m Height**					
R1	0.89	2.2%	1.77	4.4%	2.66	6.6%
R2	1.07	2.7%	2.14	5.4%	3.21	8.0%
R3	2.01	5.0%	4.02	10.1%	6.04	15.1%
R4	1.62	4.0%	3.23	8.1%	4.85	12.1%
R5	0.77	1.9%	1.53	3.8%	2.30	5.7%
R6	0.41	1.0%	0.81	2.0%	1.22	3.1%
R7	0.39	1.0%	0.78	1.9%	1.17	2.9%
P1	0.99	2.5%	1.98	4.9%	2.97	7.4%
P2	2.39	6.0%	4.79	12.0%	7.18	17.9%
P3	1.27	3.2%	2.55	6.4%	3.82	9.5%

PM_{10}

Table A11.5.25: Predicted PM_{10} Process Contributions at Human Receptors in 2032 from the proposed industrial plant

Emission Rate	**PM_{10} 5g/s**		**PM_{10} 10g/s**		**PM_{10} 20g/s**	
ID	**PC**	**% PC**	**PC**	**% PC**	**PC**	**% PC**
Flue Height	**10m Height**					
R1	0.72	1.8%	1.43	3.6%	2.87	7.2%
R2	0.87	2.2%	1.74	4.3%	3.48	8.7%
R3	1.60	4.0%	3.20	8.0%	6.40	16.0%
R4	1.31	3.3%	2.62	6.5%	5.23	13.1%
R5	0.63	1.6%	1.25	3.1%	2.51	6.3%
R6	0.33	0.8%	0.66	1.7%	1.33	3.3%
R7	0.32	0.8%	0.64	1.6%	1.27	3.2%
P1	0.81	2.0%	1.63	4.1%	3.25	8.1%
P2	1.89	4.7%	3.78	9.4%	7.56	18.9%
P3	1.04	2.6%	2.08	5.2%	4.16	10.4%
Flue Height	**25m Height**					
R1	0.63	1.6%	1.26	3.2%	2.53	6.3%
R2	0.76	1.9%	1.53	3.8%	3.06	7.6%
R3	1.44	3.6%	2.87	7.2%	5.75	14.4%
R4	1.15	2.9%	2.31	5.8%	4.62	11.5%
R5	0.55	1.4%	1.09	2.7%	2.19	5.5%
R6	0.29	0.7%	0.58	1.5%	1.16	2.9%
R7	0.28	0.7%	0.56	1.4%	1.11	2.8%
P1	0.71	1.8%	1.41	3.5%	2.82	7.1%
P2	1.71	4.3%	3.42	8.5%	6.84	17.1%
P3	0.91	2.3%	1.82	4.5%	3.64	9.1%

$PM_{2.5}$

Table A11.5.26: Predicted $PM_{2.5}$ Process Contributions at Human Receptors in 2032 from the proposed industrial plant

Emission Rate	**$PM_{2.5}$ 2g/s**		**$PM_{2.5}$ 5g/s**		**$PM_{2.5}$ 10g/s**	
ID	**PC**	**% PC**	**PC**	**% PC**	**PC**	**% PC**
Flue Height	**10m Height**					
R1	0.29	1.4%	0.72	3.6%	1.43	7.2%
R2	0.35	1.7%	0.87	4.3%	1.74	8.7%

R3	0.64	3.2%	1.60	8.0%	3.20	16.0%
R4	0.52	2.6%	1.31	6.5%	2.62	13.1%
R5	0.25	1.3%	0.63	3.1%	1.25	6.3%
R6	0.13	0.7%	0.33	1.7%	0.66	3.3%
R7	0.13	0.6%	0.32	1.6%	0.64	3.2%
P1	0.33	1.6%	0.81	4.1%	1.63	8.1%
P2	0.76	3.8%	1.89	9.4%	3.78	18.9%
P3	0.42	2.1%	1.04	5.2%	2.08	10.4%
Flue Height	**25m Height**					
R1	0.25	1.3%	0.63	3.2%	1.26	6.3%
R2	0.31	1.5%	0.76	3.8%	1.53	7.6%
R3	0.57	2.9%	1.44	7.2%	2.87	14.4%
R4	0.46	2.3%	1.15	5.8%	2.31	11.5%
R5	0.22	1.1%	0.55	2.7%	1.09	5.5%
R6	0.12	0.6%	0.29	1.5%	0.58	2.9%
R7	0.11	0.6%	0.28	1.4%	0.56	2.8%
P1	0.28	1.4%	0.71	3.5%	1.41	7.1%
P2	0.68	3.4%	1.71	8.5%	3.42	17.1%
P3	0.36	1.8%	0.91	4.5%	1.82	9.1%

Benzene

Table A11.5.27: Predicted Benzene Process Contributions at Human Receptors in 2032 from the proposed industrial plant

Emission Rate	**Benzene 1g/s**		**Benzene 2g/s**		**Benzene 3g/s**	
ID	**PC**	**% PC**	**PC**	**% PC**	**PC**	**% PC**
Flue Height	**10m Height**					
R1	0.14	2.9%	0.29	5.7%	0.43	8.6%
R2	0.17	3.5%	0.35	7.0%	0.52	10.4%
R3	0.32	6.4%	0.64	12.8%	0.96	19.2%
R4	0.26	5.2%	0.52	10.5%	0.79	15.7%
R5	0.13	2.5%	0.25	5.0%	0.38	7.5%
R6	0.07	1.3%	0.13	2.7%	0.20	4.0%
R7	0.06	1.3%	0.13	2.5%	0.19	3.8%
P1	0.16	3.3%	0.33	6.5%	0.49	9.8%
P2	0.38	7.6%	0.76	15.1%	1.13	22.7%
P3	0.21	4.2%	0.42	8.3%	0.62	12.5%
Flue Height	**25m Height**					
R1	0.13	2.5%	0.25	5.1%	0.38	7.6%
R2	0.15	3.1%	0.31	6.1%	0.46	9.2%
R3	0.29	5.7%	0.57	11.5%	0.86	17.2%
R4	0.23	4.6%	0.46	9.2%	0.69	13.8%
R5	0.11	2.2%	0.22	4.4%	0.33	6.6%
R6	0.06	1.2%	0.12	2.3%	0.17	3.5%
R7	0.06	1.1%	0.11	2.2%	0.17	3.3%
P1	0.14	2.8%	0.28	5.6%	0.42	8.5%
P2	0.34	6.8%	0.68	13.7%	1.03	20.5%
P3	0.18	3.6%	0.36	7.3%	0.55	10.9%