

Appendix 5.4: Potential Effects Supporting Tables

Table 5.49 Peak Annual Average Concentrations – Effect of Stack Height, Meteorology and Emissions Scenarios

Species	Emissions	Met data	Peak long-term Process Contribution ($\mu\text{g}/\text{m}^3$)									
			Base case	Stack height (metres)								
				40	50	60	70	80	90	100	110	120
NO ₂	Worst-case, emissions at ELVs	Port Talbot	23.9	17.0	13.3	11.3	10.8	10.7	10.7	10.7	10.7	10.7
		Rhose 1993	30.9	18.0	14.8	13.4	13.1	13.1	13.0	13.0	13.0	13.0
		Rhose 1994	32.4	18.8	15.6	14.0	13.6	13.5	13.5	13.5	13.5	13.5
		Rhose 1995	34.0	18.5	15.8	14.4	14.1	14.0	14.0	14.0	14.0	14.0
		Rhose 1996	39.0	21.3	17.6	15.8	15.4	15.3	15.3	15.3	15.3	15.3
		Rhose 1997	43.3	23.4	19.0	16.8	16.2	16.1	16.1	16.1	16.1	16.1
	Based on measured emissions	Port Talbot	2.93	7.04	3.72	2.07	1.38	1.30	1.26	1.23	1.23	1.23
		Rhose 1993	3.79	10.10	4.94	2.93	1.93	1.52	1.51	1.51	1.51	1.51
		Rhose 1994	3.98	10.10	5.30	3.45	2.20	1.64	1.57	1.57	1.56	1.56
		Rhose 1995	4.19	11.50	5.81	3.58	2.47	1.77	1.63	1.62	1.62	1.00
		Rhose 1996	4.81	13.90	7.34	4.22	2.88	2.07	1.78	1.77	1.77	1.77
		Rhose 1997	5.35	14.40	7.12	4.62	3.18	2.25	1.86	1.86	1.86	1.86
PM ₁₀ /PM _{2.5}	Worst-case, emissions at ELVs	Port Talbot	3.81	2.23	1.86	1.66	1.61	1.61	1.60	1.60	1.60	1.00
		Rhose 1993	4.93	2.45	2.13	1.99	1.96	1.96	1.96	1.96	1.96	1.96
		Rhose 1994	5.18	2.56	2.24	2.07	2.03	2.03	2.03	2.03	2.03	2.03
		Rhose 1995	5.44	2.55	2.27	2.14	2.10	2.10	2.10	2.10	2.10	2.10
		Rhose 1996	6.25	2.89	2.52	2.35	2.30	2.30	2.30	2.29	2.29	2.29
		Rhose 1997	6.95	3.15	2.71	2.48	2.42	2.42	2.41	2.41	2.41	2.41
	Based on measured emissions	Port Talbot	0.24	0.51	0.29	0.18	0.15	0.15	0.14	0.14	0.14	0.14
		Rhose 1993	0.31	0.64	0.32	0.22	0.18	0.17	0.17	0.17	0.17	0.17
		Rhose 1994	0.32	0.64	0.34	0.24	0.18	0.18	0.18	0.18	0.18	0.18
		Rhose 1995	0.33	0.74	0.38	0.27	0.20	0.19	0.19	0.18	0.18	0.18
		Rhose 1996	0.38	0.89	0.47	0.31	0.24	0.20	0.20	0.20	0.20	0.20
		Rhose 1997	0.41	0.92	0.50	0.36	0.28	0.22	0.21	0.21	0.21	0.21
SO ₂	Worst-case, emissions at ELVs	Port Talbot	56.70	33.90	26.50	22.50	21.60	21.50	21.40	21.30	21.30	21.30
		Rhose 1993	73.60	36.00	29.60	26.80	26.20	26.10	26.10	26.10	26.10	26.10
		Rhose 1994	77.40	37.70	31.20	27.90	27.20	27.10	27.10	27.10	27.10	27.10
		Rhose 1995	81.40	37.00	31.50	28.80	28.10	28.00	28.00	28.00	28.00	28.00
		Rhose 1996	93.90	42.50	35.20	31.70	30.80	30.60	30.60	30.60	30.60	30.00
		Rhose 1997	105.00	46.90	38.00	33.60	32.40	32.20	32.20	32.20	32.20	32.20
	Based on measured emissions	Port Talbot	2.68	3.19	2.17	1.63	1.51	1.48	1.47	1.46	1.46	1.46
		Rhose 1993	3.42	3.14	2.27	1.88	1.80	1.79	1.79	1.79	1.79	1.79
		Rhose 1994	3.58	3.31	2.43	1.97	1.87	1.86	1.86	1.86	1.86	1.86

Table 5.49 Peak Annual Average Concentrations – Effect of Stack Height, Meteorology and Emissions Scenarios

Species	Emissions	Met data	Peak long-term Process Contribution ($\mu\text{g}/\text{m}^3$)										
			Base case	Stack height (metres)									
				40	50	60	70	80	90	100	110	120	
		Rhose 1995	3.75	3.43	2.41	2.03	1.94	1.92	1.92	1.92	1.92	1.92	1.92
		Rhose 1996	4.27	4.15	2.73	2.25	2.12	2.11	2.10	2.10	2.10	2.10	2.10
		Rhose 1997	4.70	4.28	3.28	2.71	2.29	2.21	2.21	2.21	2.21	2.21	2.21

Note: for assessment of long-term impacts it is assumed that all NO_x will have been converted to NO_2 . Base case is the maximum annual mean contribution from the existing boilers and flare.

Table 5.50 Peak Short-term Pollutant Concentrations – Effect of Stack Height, Meteorology and Emissions Scenarios

Species	Statistics	Emissions	Met data	Peak long-term Process Contribution ($\mu\text{g}/\text{m}^3$)										
				Base case	Stack height (metres)							100	110	120
					40	50	60	70	80	90				
NO ₂	99.79 th percentile of hourly averages	Worst-case, emissions at ELVs	Port Talbot	314.0	106.0	85.2	84.0	84.0	84.0	84.0	84.0	84.0	84.0	
			Rhooose 1993	287.0	105.0	82.3	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4
			Rhooose 1994	293.0	106.0	83.4	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
			Rhooose 1995	271.0	104.0	84.1	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
			Rhooose 1996	288.0	105.0	83.6	82.5	82.3	82.3	82.3	82.3	82.3	82.3	82.3
			Rhooose 1997	301.0	105.0	83.0	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
		Based on measured emissions	Port Talbot	59.7	102	60.3	40.1	30.2	29.7	26.9	21.9	21.3	21.3	
			Rhooose 1993	54.6	107	66.1	39.6	28.8	21.2	20.4	20.4	20.4	20.4	
			Rhooose 1994	55.2	108	66.5	40.3	28.7	21.6	19.6	19.6	19.6	19.6	
			Rhooose 1995	49.3	107	65.4	41.4	30.8	22.9	20	20	20	20	
			Rhooose 1996	55.2	108	65.8	41.2	30.7	23.2	21	20.9	20.9	20.9	
			Rhooose 1997	55.3	107	65.7	42.7	32.1	23.6	20.1	20.1	20.1	20.1	
CO	Maximum 8-hour running average	Based on measured emissions	Port Talbot	12063.0	53.1	47.2	44.0	43.4	43.3	43.3	43.3	43.3	43.3	
			Rhooose 1993	8241.0	49.1	45.0	43.7	43.7	43.7	43.7	43.7	43.7	43.7	
			Rhooose 1994	9379.0	53.5	47.6	42.9	42.4	42.4	42.4	42.4	42.4	42.4	
			Rhooose 1995	7216.0	52.9	44.1	43.7	43.7	43.7	43.7	43.7	43.7	43.7	
			Rhooose 1996	9678.0	51.9	46.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	
			Rhooose 1997	7165.0	54.9	47.9	43.7	43.1	43.0	43.0	43.0	43.0	43.0	
PM ₁₀	90.4 th percentile of daily averages	Worst-case, emissions at ELVs	Port Talbot	14.3	7.9	5.9	5.4	5.3	5.3	5.3	5.3	5.3	5.3	
			Rhooose 1993	16.3	8.6	7.6	6.6	6.4	6.4	6.4	6.4	6.4	6.4	
			Rhooose 1994	17.8	10.2	8.4	7.7	7.5	7.5	7.5	7.5	7.5	7.5	
			Rhooose 1995	17.5	8.5	7.7	7.2	7.1	7.0	7.0	7.0	7.0	7.0	
			Rhooose 1996	18.9	10.1	9.1	8.3	7.8	7.4	7.3	7.3	7.3	7.3	
			Rhooose 1997	20.3	10.6	10.1	9.2	8.6	8.0	7.8	7.7	7.7	7.7	
		Based on measured emissions	Port Talbot	1.11	3.24	1.81	0.97	0.7	0.61	0.61	0.61	0.61	0.61	
			Rhooose 1993	1.31	5.84	2.82	1.7	1.19	0.88	0.73	0.73	0.72	0.72	
			Rhooose 1994	1.46	6.09	3.18	1.93	1.37	0.95	0.85	0.85	0.85	0.85	
			Rhooose 1995	1.36	5.09	2.74	1.76	1.19	0.88	0.8	0.8	0.8	0.8	
			Rhooose 1996	1.45	6.89	3.79	2.31	1.62	1.16	0.95	0.9	0.87	0.84	
			Rhooose 1997	1.48	6.85	3.51	2.38	1.69	1.22	0.98	0.92	0.9	0.88	

Table 5.50 Peak Short-term Pollutant Concentrations – Effect of Stack Height, Meteorology and Emissions Scenarios

Species	Statistics	Emissions	Met data	Peak long-term Process Contribution (µg/m³)										
				Base case	Stack height (metres)							100	110	120
					40	50	60	70	80	90				
SO ₂	99.9 th percentile of 15-minute averages	Worst-case, emissions at ELVs	Port Talbot	1825.0	441.0	368.0	366.0	366.0	366.0	366.0	366.0	366.0	366.0	366.0
			Rhooose 1993	1705.0	441.0	340.0	335.0	335.0	334.0	334.0	334.0	334.0	334.0	334.0
			Rhooose 1994	1792.0	449.0	339.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0
			Rhooose 1995	1664.0	440.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0
			Rhooose 1996	1743.0	444.0	359.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0
			Rhooose 1997	1704.0	438.0	350.0	340.0	340.0	340.0	340.0	340.0	340.0	340.0	340.0
		Based on measured emissions	Port Talbot	64.8	44.8	31.3	25.6	25.2	25.1	25.1	25.1	25.1	25.1	25.1
			Rhooose 1993	61.9	44.2	29.3	23	23	22.9	22.9	22.9	22.9	22.9	22.9
			Rhooose 1994	61.4	44.6	29.6	23.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
			Rhooose 1995	60.1	44	29.5	24	24	24	24	24	24	24	24
			Rhooose 1996	63.5	44.4	30	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
			Rhooose 1997	62.6	43.9	29.1	24.6	23.3	23.3	23.3	23.3	23.3	23.3	23.3
	99.73 rd percentile of hourly averages	Worst-case, emissions at ELVs	Port Talbot	1,576	424	337	322	322	322	322	322	322	322	322
			Rhooose 1993	1,433	420	328	316	316	316	316	316	316	316	316
			Rhooose 1994	1,460	421	332	307	307	307	307	307	307	307	307
			Rhooose 1995	1,406	416	332	310	310	310	310	310	310	310	310
			Rhooose 1996	1,461	416	333	318	318	318	318	318	318	318	318
			Rhooose 1997	1,510	413	329	308	308	308	308	308	308	308	308
		Based on measured emissions	Port Talbot	60.2	42.7	29.3	23.2	23	22.1	22.1	22.1	22.1	22.1	22.1
			Rhooose 1993	53.9	41.5	27.9	21.7	21.6	21.6	21.6	21.6	21.6	21.6	21.6
			Rhooose 1994	55.1	40.8	28.6	21.4	21	21	21	21	21	21	21
			Rhooose 1995	49.4	39.8	28.1	21.7	21.2	21.2	21.2	21.2	21.2	21.2	21.2
			Rhooose 1996	54.9	41.1	28.4	22.3	21.8	21.8	21.8	21.8	21.8	21.8	21
			Rhooose 1997	55.1	40.8	27.7	21.6	21.3	21.1	21.1	21.1	21.1	21.1	21.1
99.18 th percentile of daily averages	Worst-case, emissions at ELVs	Port Talbot	354.0	269.0	219.0	170.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	
		Rhooose 1993	370.0	251.0	201.0	166.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	
		Rhooose 1994	431.0	241.0	212.0	195.0	175.0	162.0	162.0	162.0	162.0	162.0	162.0	
		Rhooose 1995	437.0	243.0	214.0	190.0	174.0	164.0	160.0	159.0	159.0	159.0	159.0	
		Rhooose 1996	395.0	260.0	201.0	185.0	168.0	159.0	154.0	153.0	153.0	152.0	152.0	
		Rhooose 1997	432.0	256.0	215.0	196.0	180.0	167.0	159.0	155.0	155.0	155.0	155.0	
	Based on measured emissions	Port Talbot	16.2	28.3	21.2	14.9	11.5	10.8	10.8	10.8	10.8	10.8	10	
		Rhooose 1993	17.2	28	18.2	13.4	11.5	10.8	10.8	10.8	10.8	10.8	10.8	
		Rhooose 1994	19.4	29	19.5	16.3	13.5	11.9	11.1	11.1	11.1	11.1	11.1	

Table 5.50 Peak Short-term Pollutant Concentrations – Effect of Stack Height, Meteorology and Emissions Scenarios

Species	Statistics	Emissions	Met data	Peak long-term Process Contribution ($\mu\text{g}/\text{m}^3$)									
				Base case	Stack height (metres)								
					40	50	60	70	80	90	100	110	120
			Rhose 1995	19.7	27.8	19.2	16	13.6	11.9	11	10.9	10.9	10.9
			Rhose 1996	17.4	29.2	17.8	15.1	12.9	11.6	10.6	10.5	10.5	10.5
			Rhose 1997	19.1	26.7	20.5	16.3	13.9	12.4	11.2	10.7	10.6	10.6

Table 5.51 Annual Process Contribution ($\mu\text{g}/\text{m}^3$) at ELV for NO_2 , PM_{10} and $\text{PM}_{2.5}$ for Base Case and Option 1																		
Species	NO_2								$\text{PM}_{10}/\text{PM}_{2.5}$									
AQS ($\mu\text{g}/\text{m}^3$)	40								40/20									
Met Data	Port Talbot				Rhoose				Port Talbot					Rhoose				
Receptor ID	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS of $40 \mu\text{g}/\text{m}^3$	% of AQS of $25 \mu\text{g}/\text{m}^3$	Base case	Option 1	Change	% of AQS of 40	% of AQS of $25 \mu\text{g}/\text{m}^3$
1	0.7	0.4	-0.3	-0.8	0.6	0.4	-0.2	-0.6	0.1	0.0	-0.1	-0.2	-0.2	0.1	0.1	-0.1	-0.1	-0.2
2	1.3	0.5	-0.8	-2.0	0.9	0.4	-0.5	-1.3	0.2	0.1	-0.1	-0.3	-0.5	0.1	0.0	-0.1	-0.2	-0.4
3	4.2	0.8	-3.4	-8.4	5.5	2.1	-3.4	-8.4	0.7	0.1	-0.6	-1.4	-2.3	0.9	0.3	-0.6	-1.5	-2.3
4	1.7	0.9	-0.8	-1.9	3.8	2.4	-1.4	-3.5	0.3	0.1	-0.2	-0.4	-0.6	0.6	0.3	-0.3	-0.7	-1.2
5	1.8	1.0	-0.8	-1.9	1.2	0.6	-0.5	-1.3	0.3	0.1	-0.2	-0.4	-0.6	0.2	0.1	-0.1	-0.3	-0.4
6	0.9	0.6	-0.3	-0.8	1.1	0.5	-0.7	-1.6	0.1	0.1	-0.1	-0.2	-0.3	0.2	0.1	-0.1	-0.3	-0.5
7	1.4	0.8	-0.6	-1.6	0.7	0.4	-0.3	-0.8	0.2	0.1	-0.1	-0.3	-0.5	0.1	0.1	-0.1	-0.2	-0.3
8	1.1	0.5	-0.6	-1.4	0.7	0.3	-0.3	-0.9	0.2	0.1	-0.1	-0.3	-0.4	0.1	0.0	-0.1	-0.2	-0.3
9	0.4	0.3	-0.2	-0.4	0.4	0.2	-0.1	-0.3	0.1	0.0	0.0	-0.1	-0.1	0.1	0.0	0.0	-0.1	-0.1
10	0.5	0.4	-0.2	-0.4	0.7	0.4	-0.2	-0.6	0.1	0.0	0.0	-0.1	-0.2	0.1	0.1	0.0	-0.1	-0.2
11	4.3	1.7	-2.6	-6.5	2.0	0.7	-1.2	-3.0	0.7	0.2	-0.4	-1.1	-1.8	0.3	0.1	-0.2	-0.5	-0.8
12	1.4	0.9	-0.5	-1.2	1.6	1.0	-0.6	-1.5	0.2	0.1	-0.1	-0.3	-0.4	0.3	0.1	-0.1	-0.3	-0.5
13	1.5	1.1	-0.5	-1.2	3.0	1.8	-1.2	-3.1	0.2	0.1	-0.1	-0.3	-0.4	0.5	0.2	-0.3	-0.6	-1.0
14	1.1	0.5	-0.5	-1.3	0.5	0.3	-0.2	-0.6	0.2	0.1	-0.1	-0.2	-0.4	0.1	0.0	0.0	-0.1	-0.2
15	0.6	0.4	-0.3	-0.7	0.6	0.4	-0.2	-0.5	0.1	0.0	-0.1	-0.1	-0.2	0.1	0.1	0.0	-0.1	-0.2
16	1.1	0.8	-0.3	-0.7	1.0	0.7	-0.3	-0.7	0.2	0.1	-0.1	-0.2	-0.3	0.2	0.1	-0.1	-0.2	-0.2
17	0.8	0.5	-0.3	-0.7	1.0	0.6	-0.3	-0.9	0.1	0.1	-0.1	-0.1	-0.2	0.2	0.1	-0.1	-0.2	-0.3
18	2.4	1.0	-1.4	-3.5	4.8	2.3	-2.5	-6.3	0.4	0.1	-0.3	-0.6	-1.0	0.8	0.3	-0.5	-1.1	-1.8
19	0.1	0.1	0.0	-0.1	0.1	0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.5	0.3	-0.2	-0.4	0.7	0.4	-0.2	-0.6	0.1	0.0	0.0	-0.1	-0.1	0.1	0.1	0.0	-0.1	-0.2
22	1.4	0.9	-0.6	-1.4	1.5	0.9	-0.5	-1.4	0.2	0.1	-0.1	-0.3	-0.5	0.2	0.1	-0.1	-0.3	-0.4
23	1.7	0.6	-1.1	-2.7	0.9	0.3	-0.5	-1.3	0.3	0.1	-0.2	-0.4	-0.7	0.1	0.0	-0.1	-0.2	-0.4
24	3.8	1.6	-2.3	-5.7	2.4	0.9	-1.5	-3.7	0.6	0.2	-0.4	-1.0	-1.6	0.4	0.1	-0.3	-0.6	-1.0
25	3.3	1.6	-1.7	-4.2	1.6	0.7	-0.9	-2.2	0.5	0.2	-0.3	-0.8	-1.2	0.3	0.1	-0.2	-0.4	-0.6
26	1.4	1.0	-0.5	-1.1	1.7	1.0	-0.6	-1.6	0.2	0.1	-0.1	-0.3	-0.4	0.3	0.1	-0.1	-0.3	-0.5
27	0.9	0.4	-0.4	-1.1	0.7	0.4	-0.3	-0.8	0.1	0.1	-0.1	-0.2	-0.3	0.1	0.0	-0.1	-0.2	-0.2
28	0.9	0.4	-0.4	-1.1	0.7	0.4	-0.3	-0.8	0.1	0.1	-0.1	-0.2	-0.3	0.1	0.0	-0.1	-0.2	-0.2
29	1.0	0.5	-0.5	-1.3	0.6	0.3	-0.3	-0.7	0.2	0.1	-0.1	-0.2	-0.4	0.1	0.0	-0.1	-0.1	-0.2
30	1.0	0.5	-0.5	-1.2	0.5	0.3	-0.2	-0.6	0.2	0.1	-0.1	-0.2	-0.4	0.1	0.0	0.0	-0.1	-0.2
31	0.9	0.5	-0.4	-1.1	0.5	0.3	-0.2	-0.5	0.1	0.1	-0.1	-0.2	-0.3	0.1	0.0	0.0	-0.1	-0.2
32	0.5	0.3	-0.2	-0.5	0.5	0.4	-0.1	-0.4	0.1	0.0	0.0	-0.1	-0.1	0.1	0.0	0.0	-0.1	-0.1
33	0.7	0.4	-0.3	-0.8	0.6	0.3	-0.2	-0.6	0.1	0.1	-0.1	-0.2	-0.3	0.1	0.0	0.0	-0.1	-0.2

Note: Values in bold are greater than a 1% increase of the long-term AQS



Table 5.52 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) at ELV for NO_2 and PM_{10} for Base Case and Option 1

Species	NO_2								PM_{10}							
Statistic	99.79 th percentile of hourly averages								90.4 th percentile of daily averages							
AQS ($\mu\text{g}/\text{m}^3$)	200								50							
Met Data	Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor ID	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option1	Change	% of AQS
1	17.5	10.7	-6.8	-3.4	17.2	13.3	-3.9	-1.9	0.3	0.2	-0.2	-0.4	0.3	0.2	-0.1	-0.3
2	22.3	10.4	-11.9	-5.9	23.8	13.4	-10.3	-5.2	0.8	0.3	-0.5	-1.0	0.5	0.2	-0.3	-0.6
3	26.6	19.0	-7.6	-3.8	25.1	15.8	-9.3	-4.7	1.9	0.4	-1.6	-3.1	2.5	1.0	-1.5	-3.0
4	17.6	18.3	0.6	0.3	18.0	20.0	2.0	1.0	0.9	0.4	-0.5	-1.0	1.9	1.2	-0.7	-1.5
5	23.1	16.1	-7.0	-3.5	20.0	16.1	-3.9	-2.0	0.9	0.4	-0.4	-0.8	0.7	0.4	-0.4	-0.7
6	10.3	8.7	-1.6	-0.8	11.6	10.6	-1.0	-0.5	0.4	0.2	-0.2	-0.3	0.6	0.3	-0.3	-0.6
7	19.5	17.8	-1.7	-0.8	16.7	14.9	-1.8	-0.9	0.8	0.3	-0.4	-0.9	0.4	0.2	-0.2	-0.4
8	18.4	9.6	-8.8	-4.4	20.4	12.6	-7.8	-3.9	0.6	0.2	-0.4	-0.7	0.4	0.2	-0.2	-0.4
9	10.6	8.0	-2.6	-1.3	11.3	9.6	-1.7	-0.8	0.2	0.1	-0.1	-0.2	0.2	0.1	-0.1	-0.2
10	11.5	9.9	-1.5	-0.8	11.5	9.7	-1.8	-0.9	0.3	0.2	-0.2	-0.3	0.4	0.2	-0.2	-0.4
11	29.6	18.1	-11.6	-5.8	25.9	15.7	-10.2	-5.1	2.2	0.9	-1.3	-2.7	1.1	0.4	-0.7	-1.3
12	20.3	22.8	2.6	1.3	17.3	17.6	0.3	0.1	0.6	0.4	-0.2	-0.4	0.9	0.5	-0.4	-0.7
13	16.5	18.0	1.5	0.7	17.0	16.4	-0.6	-0.3	0.7	0.4	-0.2	-0.5	1.6	0.9	-0.7	-1.5
14	17.9	13.0	-4.9	-2.5	16.9	15.2	-1.7	-0.8	0.6	0.3	-0.3	-0.6	0.3	0.1	-0.1	-0.3
15	15.8	10.5	-5.3	-2.6	16.5	13.7	-2.9	-1.4	0.3	0.1	-0.2	-0.3	0.3	0.2	-0.2	-0.3
16	10.3	9.8	-0.5	-0.3	10.3	10.0	-0.3	-0.2	0.7	0.4	-0.3	-0.6	0.6	0.4	-0.2	-0.4
17	15.7	12.5	-3.2	-1.6	15.5	12.5	-2.9	-1.5	0.5	0.2	-0.3	-0.5	0.6	0.3	-0.3	-0.6
18	23.5	18.0	-5.5	-2.7	21.7	20.1	-1.7	-0.8	1.1	0.4	-0.7	-1.4	2.4	1.1	-1.3	-2.7
19	3.2	2.5	-0.6	-0.3	3.7	3.1	-0.6	-0.3	0.1	0.0	0.0	-0.1	0.1	0.0	0.0	-0.1
20	2.6	2.2	-0.4	-0.2	2.0	1.5	-0.4	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	11.6	10.1	-1.5	-0.8	11.8	10.1	-1.7	-0.8	0.3	0.2	-0.2	-0.3	0.4	0.2	-0.2	-0.3
22	20.8	20.9	0.1	0.1	16.4	16.1	-0.3	-0.1	0.6	0.4	-0.2	-0.5	0.8	0.5	-0.3	-0.6
23	26.6	11.9	-14.7	-7.3	27.6	14.1	-13.5	-6.8	1.0	0.3	-0.7	-1.3	0.5	0.2	-0.4	-0.7
24	26.0	19.0	-7.0	-3.5	26.4	16.8	-9.5	-4.8	1.8	0.7	-1.1	-2.2	1.3	0.5	-0.8	-1.6
25	22.4	22.7	0.4	0.2	20.4	20.7	0.3	0.1	1.7	0.8	-0.9	-1.9	0.9	0.4	-0.6	-1.1
26	21.6	23.1	1.5	0.8	17.7	18.1	0.5	0.2	0.6	0.4	-0.2	-0.4	0.9	0.5	-0.4	-0.8
27	19.2	10.1	-9.1	-4.5	19.2	13.6	-5.6	-2.8	0.4	0.2	-0.2	-0.4	0.3	0.2	-0.1	-0.3
28	18.6	9.9	-8.7	-4.4	18.5	13.1	-5.4	-2.7	0.4	0.2	-0.2	-0.4	0.3	0.2	-0.2	-0.3
29	16.9	10.3	-6.6	-3.3	18.3	13.8	-4.5	-2.3	0.6	0.2	-0.4	-0.7	0.4	0.1	-0.2	-0.4
30	16.5	11.7	-4.8	-2.4	17.0	14.0	-3.0	-1.5	0.6	0.2	-0.3	-0.7	0.3	0.1	-0.2	-0.3
31	15.8	12.2	-3.5	-1.8	16.5	15.1	-1.4	-0.7	0.5	0.2	-0.3	-0.6	0.2	0.1	-0.1	-0.2
32	12.0	9.5	-2.5	-1.3	13.4	11.4	-2.1	-1.0	0.2	0.1	-0.1	-0.2	0.3	0.2	-0.1	-0.2
33	15.4	10.1	-5.3	-2.7	16.5	12.3	-4.1	-2.1	0.4	0.2	-0.2	-0.4	0.3	0.2	-0.1	-0.3

Note: Values in bold are greater than a 10% increase of the short-term AQS



Table 5.53 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) at ELV for SO_2 for Base Case and Option 1

Species	SO_2																							
Statistic	99.9 th percentile of 15-minute averages								99.73 rd percentile of hourly averages								99.18 th percentile of daily averages							
AQS ($\mu\text{g}/\text{m}^3$)	266								350								125							
Met Data	Port Talbot				Rhoose				Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor ID	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS
1	95.3	57.3	-37.9	-14.3	96.6	73.6	-23.1	-8.7	82.8	42.4	-40.4	-11.5	82.1	52.8	-29.2	-8.4	26.8	14.4	-12.3	-9.9	23.5	12.1	-11.4	-9.1
2	120.6	48.5	-72.1	-27.1	133.7	67.2	-66.5	-25.0	106.5	41.2	-65.3	-18.7	111.7	47.7	-64.0	-18.3	43.2	12.8	-30.4	-24.3	27.8	9.8	-18.0	-14.4
3	292.8	101.5	-191.3	-71.9	261.2	88.6	-172.7	-64.9	135.2	66.0	-69.2	-19.8	131.0	60.4	-70.6	-20.2	75.1	12.7	-62.3	-49.9	64.6	25.8	-38.8	-31.1
4	105.8	101.2	-4.7	-1.7	120.1	105.4	-14.7	-5.5	84.4	70.1	-14.3	-4.1	86.5	82.7	-3.8	-1.1	23.2	18.1	-5.2	-4.1	44.8	29.8	-15.0	-12.0
5	141.6	98.2	-43.5	-16.3	136.6	97.0	-39.6	-14.9	107.7	59.2	-48.5	-13.9	89.9	57.4	-32.4	-9.3	28.4	19.5	-8.9	-7.1	21.8	11.9	-9.9	-7.9
6	69.9	62.0	-7.9	-3.0	79.2	73.8	-5.4	-2.0	50.2	37.5	-12.7	-3.6	56.3	46.6	-9.7	-2.8	11.7	9.3	-2.5	-2.0	13.9	8.7	-5.2	-4.2
7	109.9	92.6	-17.3	-6.5	100.2	85.8	-14.4	-5.4	89.0	70.8	-18.2	-5.2	74.6	60.4	-14.2	-4.1	29.7	16.3	-13.4	-10.7	21.6	14.0	-7.6	-6.1
8	100.0	47.0	-53.0	-19.9	111.0	72.4	-38.6	-14.5	88.7	36.4	-52.3	-14.9	95.8	47.7	-48.2	-13.8	34.0	12.9	-21.0	-16.8	22.7	10.3	-12.5	-10.0
9	62.0	51.2	-10.7	-4.0	68.3	55.9	-12.4	-4.7	49.3	31.2	-18.1	-5.2	53.7	39.3	-14.4	-4.1	13.8	7.9	-6.0	-4.8	11.9	8.0	-3.9	-3.1
10	69.3	55.7	-13.7	-5.1	68.7	54.2	-14.5	-5.5	56.2	43.7	-12.5	-3.6	56.1	43.2	-12.8	-3.7	14.8	9.8	-5.0	-4.0	19.2	12.3	-6.9	-5.5
11	154.0	103.5	-50.5	-19.0	142.1	93.3	-48.8	-18.3	142.1	66.5	-75.6	-21.6	118.1	54.3	-63.8	-18.2	62.3	25.2	-37.1	-29.7	47.9	18.6	-29.3	-23.4
12	155.9	147.9	-8.0	-3.0	126.8	129.1	2.2	0.8	90.6	76.6	-13.9	-4.0	72.4	74.0	1.6	0.4	19.3	15.3	-4.0	-3.2	25.8	17.0	-8.8	-7.0
13	118.1	161.7	43.6	16.4	133.5	112.3	-21.2	-8.0	79.6	71.6	-8.0	-2.3	81.4	70.7	-10.6	-3.0	24.3	16.3	-8.0	-6.4	40.7	28.3	-12.5	-10.0
14	96.7	69.1	-27.6	-10.4	102.3	84.8	-17.5	-6.6	79.8	50.9	-29.0	-8.3	80.7	54.0	-26.7	-7.6	22.0	12.9	-9.1	-7.3	16.5	9.7	-6.9	-5.5
15	88.2	56.0	-32.2	-12.1	95.8	70.4	-25.3	-9.5	75.3	43.2	-32.1	-9.2	80.7	54.4	-26.3	-7.5	26.7	12.6	-14.1	-11.2	23.8	13.4	-10.3	-8.3
16	57.7	51.5	-6.2	-2.3	78.3	64.2	-14.1	-5.3	51.1	43.7	-7.4	-2.1	51.0	45.2	-5.8	-1.7	32.5	26.0	-6.4	-5.1	23.4	16.9	-6.5	-5.2
17	88.2	61.7	-26.5	-10.0	88.9	67.0	-21.9	-8.2	75.2	52.1	-23.1	-6.6	73.6	52.9	-20.7	-5.9	22.1	13.7	-8.5	-6.8	29.1	17.0	-12.1	-9.7
18	152.6	101.8	-50.8	-19.1	214.1	100.2	-113.9	-42.8	104.4	66.1	-38.3	-10.9	112.1	76.4	-35.7	-10.2	34.4	19.3	-15.1	-12.1	52.1	28.5	-23.6	-18.9
19	26.4	17.3	-9.1	-3.4	27.7	21.0	-6.8	-2.5	14.2	10.7	-3.6	-1.0	16.5	12.3	-4.3	-1.2	2.9	1.9	-1.0	-0.8	2.8	2.2	-0.6	-0.5
20	22.3	15.0	-7.3	-2.7	16.9	12.4	-4.5	-1.7	11.4	7.4	-3.9	-1.1	8.8	6.6	-2.1	-0.6	1.6	1.0	-0.6	-0.5	2.2	1.5	-0.7	-0.6
21	68.4	57.6	-10.8	-4.1	71.7	54.1	-17.6	-6.6	55.9	42.7	-13.2	-3.8	57.6	43.5	-14.0	-4.0	14.1	10.4	-3.7	-3.0	18.5	12.7	-5.7	-4.6
22	147.3	124.7	-22.6	-8.5	120.5	126.7	6.1	2.3	88.6	72.4	-16.1	-4.6	79.5	71.0	-8.5	-2.4	18.9	13.1	-5.8	-4.6	22.5	13.6	-8.8	-7.1
23	144.5	53.4	-91.1	-34.2	153.8	74.6	-79.2	-29.8	119.0	45.8	-73.3	-20.9	112.5	48.9	-63.6	-18.2	40.6	13.6	-27.0	-21.6	31.1	11.3	-19.9	-15.9
24	145.6	112.2	-33.4	-12.5	150.1	105.3	-44.8	-16.8	122.9	71.1	-51.8	-14.8	120.7	63.5	-57.2	-16.3	56.8	24.7	-32.0	-25.6	55.0	20.6	-34.4	-27.5
25	121.2	118.0	-3.3	-1.2	117.0	111.5	-5.5	-2.1	106.9	92.6	-14.3	-4.1	94.7	71.4	-23.4	-6.7	44.8	24.3	-20.6	-16.5	38.7	16.2	-22.6	-18.1
26	169.0	154.2	-14.8	-5.6	125.0	127.7	2.8	1.0	87.0	75.9	-11.2	-3.2	81.0	75.5	-5.5	-1.6	20.8	15.5	-5.2	-4.2	26.8	15.9	-10.9	-8.7
27	105.0	53.1	-51.9	-19.5	104.4	68.4	-36.0	-13.5	89.8	37.8	-52.1	-14.9	91.3	50.8	-40.5	-11.6	31.4	11.7	-19.7	-15.8	20.8	13.0	-7.8	-6.3
28	102.2	50.6	-51.7	-19.4	103.5	68.2	-35.3	-13.3	88.2	37.0	-51.2	-14.6	89.3	50.1	-39.2	-11.2	30.7	12.1	-18.6	-14.9	20.3	12.3	-8.0	-6.4
29	93.8	55.5	-38.3	-14.4	99.1	74.7	-24.4	-9.2	77.2	38.7	-38.4	-11.0	83.1	52.5	-30.7	-8.8	24.5	11.4	-13.0	-10.4	20.1	8.9	-11.2	-9.0
30	91.7	65.0	-26.6	-10.0	101.2	83.8	-17.4	-6.5	77.3	46.6	-30.7	-8.8	79.1	53.5	-25.7	-7.3	20.6	11.2	-9.4	-7.5	17.9	8.9	-9.0	-7.2
31	87.6	69.3	-18.3	-6.9	95.0	86.0	-9.0	-3.4	72.2	49.7	-22.4	-6.4	75.0	56.9	-18.0	-5.1	19.4	11.2	-8.2	-6.6	16.1	8.6	-7.5	-6.0
32	70.1	51.2	-19.0	-7.1	77.4	60.3	-17.1	-6.4	58.1	38.4	-19.7	-5.6	63.6	48.3	-15.2	-4.4	18.6	10.2	-8.4	-6.7	19.3	12.6	-6.7	-5.4
33	86.7	56.2	-30.6	-11.5	91.7	65.4	-26.3	-9.9	72.3	36.6	-35.7	-10.2	78.1	47.1	-31.0	-8.9	24.7	11.7	-13.0	-10.4	16.4	9.0	-7.4	-5.9

Note: Values in bold are greater than a 10% increase of the short-term AQS

Table 5.54 Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) at Realistic Emission Rates for Base Case and Option 1

Species	NO ₂								PM ₁₀ /PM _{2.5}									
AQS ($\mu\text{g}/\text{m}^3$)	40								40/25									
Met Data	Port Talbot				Rhoose				Port Talbot					Rhoose				
Receptor ID	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option1	Change	% of AQS of 40 $\mu\text{g}/\text{m}^3$	% of AQS of 25 $\mu\text{g}/\text{m}^3$	Base case	Option 1	Change	% of AQS of 40 $\mu\text{g}/\text{m}^3$	% of AQS of 25 $\mu\text{g}/\text{m}^3$
1	0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.2	0.1	-0.1	-0.2	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.5	0.3	-0.2	-0.6	0.7	0.5	-0.2	-0.5	0.1	0.0	0.0	-0.1	-0.1	0.1	0.0	0.0	-0.1	-0.1
4	0.3	0.4	0.2	0.5	0.5	1.1	0.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1
5	0.3	0.5	0.2	0.4	0.2	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.2	0.3	0.1	0.2	0.4	0.2	-0.2	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.2	0.3	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.5	0.3	-0.2	-0.6	0.3	0.2	-0.1	-0.3	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
12	0.3	0.5	0.2	0.4	0.3	0.5	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.3	0.6	0.3	0.7	0.4	0.9	0.4	1.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1
14	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.2	0.4	0.1	0.4	0.2	0.3	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.1	0.2	0.1	0.3	0.2	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.3	0.4	0.1	0.2	0.6	0.8	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.4	0.4	0.1	0.2	0.3	0.4	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.2	0.1	-0.1	-0.3	0.1	0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.5	0.3	-0.1	-0.4	0.3	0.2	-0.1	-0.3	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
25	0.4	0.5	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.3	0.5	0.2	0.5	0.3	0.5	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: Values in bold are greater than a 1% increase of the long-term standard

Table 5.55 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) at Realistic Emission Rates for Base Case and Option 1

Species	NO ₂								CO								PM ₁₀							
Statistic	99.79 th percentile of hourly averages								Max 8-hour running average								90.4 th percentile of daily averages							
AQS ($\mu\text{g}/\text{m}^3$)	200 ^b								10,000								50							
Met Data	Port Talbot				Rhoose				Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor ID	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS
1	4.7	10.3	5.6	2.8	5.2	13.6	8.4	4.2	369.0	4.3	-364.7	-3.6	403.8	4.5	-399.3	-4.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
2	4.9	6.3	1.3	0.7	5.5	13.3	7.8	3.9	723.0	6.9	-716.1	-7.2	744.7	5.8	-738.9	-7.4	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
3	6.3	18.9	12.6	6.3	5.2	13.5	8.4	4.2	1250.0	5.6	-1244.4	-12.4	709.5	6.5	-703.1	-7.0	0.3	0.1	-0.2	-0.1	0.3	0.2	0.0	0.0
4	5.1	19.8	14.8	7.4	4.9	19.5	14.6	7.3	633.0	5.0	-628.0	-6.3	370.0	6.3	-363.7	-3.6	0.1	0.2	0.1	0.0	0.2	0.5	0.3	0.1
5	6.7	15.6	8.9	4.4	5.8	15.5	9.6	4.8	286.0	3.4	-282.6	-2.8	299.4	5.0	-294.4	-2.9	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.0
6	3.8	9.0	5.2	2.6	4.6	9.1	4.5	2.3	129.0	1.6	-127.4	-1.3	150.6	1.9	-148.7	-1.5	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0
7	5.1	17.7	12.6	6.3	4.9	15.0	10.1	5.1	361.0	6.0	-355.0	-3.5	335.0	4.4	-330.6	-3.3	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
8	4.1	9.1	5.0	2.5	4.8	13.4	8.6	4.3	511.0	5.9	-505.2	-5.1	532.5	4.7	-527.8	-5.3	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
9	3.3	8.0	4.7	2.3	3.9	8.8	4.9	2.5	212.0	2.8	-209.2	-2.1	194.0	2.9	-191.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
10	3.8	8.5	4.7	2.3	4.1	8.7	4.6	2.3	170.0	2.6	-167.4	-1.7	217.8	2.9	-214.9	-2.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0
11	6.3	19.3	13.0	6.5	5.7	15.3	9.7	4.8	964.0	8.4	-955.6	-9.6	687.5	7.8	-679.6	-6.8	0.2	0.1	-0.1	0.0	0.1	0.1	0.0	0.0
12	7.0	23.2	16.2	8.1	5.4	16.0	10.6	5.3	206.0	3.2	-202.8	-2.0	162.5	2.8	-159.8	-1.6	0.1	0.2	0.1	0.0	0.1	0.2	0.1	0.1
13	4.8	18.5	13.7	6.9	5.4	15.3	9.9	5.0	249.0	4.3	-244.7	-2.4	293.4	4.1	-289.3	-2.9	0.1	0.2	0.1	0.1	0.2	0.4	0.2	0.1
14	4.3	12.1	7.8	3.9	4.7	15.1	10.4	5.2	373.0	4.4	-368.6	-3.7	364.8	3.8	-361.0	-3.6	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
15	4.5	10.6	6.1	3.0	5.5	12.8	7.2	3.6	345.0	4.1	-340.9	-3.4	404.0	4.5	-399.5	-4.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
16	3.1	8.0	4.9	2.4	3.2	8.4	5.1	2.6	165.0	3.1	-162.0	-1.6	167.7	2.7	-165.0	-1.7	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.0
17	4.6	11.0	6.4	3.2	5.0	11.6	6.6	3.3	292.0	3.8	-288.2	-2.9	344.1	4.1	-339.9	-3.4	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0
18	5.3	16.5	11.2	5.6	5.0	20.0	15.0	7.5	519.0	5.7	-513.3	-5.1	660.5	7.1	-653.4	-6.5	0.1	0.2	0.0	0.0	0.3	0.4	0.1	0.1
19	1.3	2.1	0.8	0.4	1.7	2.5	0.7	0.4	48.4	0.7	-47.7	-0.5	28.5	0.4	-28.1	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	1.1	1.9	0.8	0.4	0.9	1.3	0.4	0.2	23.9	0.4	-23.5	-0.2	21.2	0.4	-20.9	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	3.9	8.7	4.8	2.4	4.3	8.6	4.3	2.2	181.0	2.7	-178.3	-1.8	212.7	3.1	-209.7	-2.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0
22	6.5	23.2	16.7	8.3	5.4	14.8	9.4	4.7	236.0	2.8	-233.2	-2.3	155.3	2.6	-152.6	-1.5	0.1	0.2	0.1	0.0	0.1	0.2	0.1	0.0
23	5.6	3.8	-1.8	-0.9	6.0	11.7	5.7	2.9	765.0	6.0	-759.0	-7.6	662.7	5.9	-656.8	-6.6	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
24	6.1	18.9	12.9	6.4	6.0	16.3	10.3	5.1	692.0	7.8	-684.2	-6.8	660.3	6.7	-653.6	-6.5	0.2	0.1	-0.1	0.0	0.1	0.1	-0.1	0.0
25	5.9	23.6	17.7	8.9	5.5	22.0	16.4	8.2	572.0	8.0	-564.0	-5.6	444.5	6.3	-438.2	-4.4	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.0
26	6.2	23.2	17.1	8.5	5.6	16.3	10.6	5.3	230.0	3.4	-226.6	-2.3	183.0	3.9	-179.1	-1.8	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.0
27	4.7	9.9	5.1	2.6	5.2	13.5	8.3	4.2	476.0	4.8	-471.2	-4.7	477.1	5.3	-471.8	-4.7	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
28	4.5	10.2	5.7	2.8	5.2	14.2	9.0	4.5	488.0	4.6	-483.4	-4.8	486.3	5.2	-481.1	-4.8	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
29	4.0	8.8	4.7	2.4	4.8	13.9	9.1	4.5	447.0	4.6	-442.4	-4.4	386.3	4.2	-382.1	-3.8	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
30	3.9	10.2	6.3	3.1	4.6	14.1	9.4	4.7	387.0	4.3	-382.7	-3.8	344.7	3.6	-341.0	-3.4	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
31	4.0	11.5	7.6	3.8	4.7	14.2	9.5	4.7	339.0	4.0	-335.0	-3.3	307.5	3.5	-304.0	-3.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
32	4.0	8.9	4.8	2.4	4.8	10.5	5.8	2.9	245.0	3.3	-241.7	-2.4	285.6	3.8	-281.8	-2.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
33	3.9	10.3	6.4	3.2	4.5	12.8	8.4	4.2	387.0	4.0	-383.0	-3.8	381.6	4.5	-377.0	-3.8	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0

Note: Values in bold are greater than a 10% increase of the short-term AQS

Table 5.56 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) at Realistic Emission Rates for SO_2 for Base Case and Option 1

Species	SO_2																							
Statistic	99.9 th percentile of 15-minute averages								99.73 rd percentile of hourly averages								99.18 th percentile of daily averages							
AQS ($\mu\text{g}/\text{m}^3$)	266								350								125							
Met Data	Port Talbot				Rhoose				Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor ID	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS	Base case	Option 1	Change	% of AQS
1	4.2	5.3	1.1	0.4	4.3	6.2	1.9	0.7	3.7	3.9	0.2	0.0	3.6	4.9	1.4	0.4	1.2	1.3	0.1	0.1	1.0	1.3	0.2	0.2
2	5.3	3.8	-1.5	-0.6	5.7	7.0	1.3	0.5	4.6	2.9	-1.7	-0.5	5.0	4.7	-0.2	-0.1	2.0	1.0	-1.0	-0.8	1.2	1.1	-0.2	-0.2
3	10.6	10.3	-0.3	-0.1	9.1	8.8	-0.3	-0.1	5.0	6.7	1.6	0.5	4.7	5.6	0.9	0.2	2.7	1.2	-1.4	-1.1	2.8	1.8	-1.0	-0.8
4	4.5	8.5	4.0	1.5	4.6	9.3	4.7	1.8	3.5	6.6	3.1	0.9	3.8	7.4	3.6	1.0	1.1	1.8	0.7	0.6	2.0	2.8	0.7	0.6
5	6.1	8.9	2.8	1.1	5.9	8.4	2.5	0.9	4.4	5.7	1.3	0.4	3.8	5.2	1.4	0.4	1.2	1.6	0.4	0.3	0.9	1.0	0.1	0.1
6	2.7	4.7	2.0	0.8	3.5	5.2	1.8	0.7	2.0	3.1	1.1	0.3	2.4	3.2	0.8	0.2	0.5	0.7	0.2	0.2	0.6	0.7	0.1	0.1
7	4.6	7.9	3.3	1.2	4.1	7.1	3.1	1.1	3.9	6.3	2.4	0.7	3.3	5.0	1.7	0.5	1.4	1.6	0.2	0.2	1.1	1.2	0.1	0.1
8	4.6	4.8	0.2	0.1	4.8	6.8	1.9	0.7	3.9	3.2	-0.7	-0.2	4.3	4.7	0.4	0.1	1.5	1.1	-0.4	-0.3	1.0	1.0	0.0	0.0
9	2.7	3.9	1.2	0.4	3.3	4.3	1.1	0.4	2.2	2.9	0.7	0.2	2.3	3.3	0.9	0.3	0.6	0.7	0.0	0.0	0.5	0.7	0.2	0.2
10	3.0	4.2	1.2	0.5	2.9	4.1	1.3	0.5	2.4	3.3	1.0	0.3	2.4	3.4	1.0	0.3	0.7	0.8	0.1	0.1	0.8	1.0	0.2	0.2
11	6.8	9.9	3.1	1.2	6.4	8.7	2.3	0.9	6.4	6.8	0.4	0.1	5.5	5.8	0.2	0.1	3.0	2.0	-1.0	-0.8	2.2	1.4	-0.9	-0.7
12	6.5	13.0	6.5	2.4	4.9	9.2	4.3	1.6	3.8	7.6	3.9	1.1	3.1	5.6	2.5	0.7	0.8	1.3	0.5	0.4	1.1	1.4	0.4	0.3
13	4.8	13.0	8.3	3.1	5.1	8.2	3.1	1.2	3.2	6.1	2.9	0.8	3.3	5.7	2.4	0.7	1.0	1.4	0.4	0.3	1.7	2.6	0.8	0.7
14	4.2	6.2	2.0	0.8	4.3	7.4	3.1	1.2	3.7	4.2	0.5	0.1	3.5	5.4	1.9	0.6	1.1	1.1	0.1	0.1	0.7	0.8	0.1	0.1
15	4.0	5.0	1.0	0.4	4.0	5.9	1.8	0.7	3.4	3.9	0.5	0.1	3.5	4.9	1.4	0.4	1.2	1.1	-0.1	-0.1	1.0	1.3	0.3	0.2
16	2.4	4.0	1.6	0.6	3.0	5.1	2.2	0.8	2.1	3.2	1.1	0.3	2.1	3.3	1.2	0.3	1.4	2.0	0.6	0.4	1.0	1.3	0.3	0.2
17	3.8	5.0	1.2	0.5	3.8	5.5	1.7	0.6	3.3	4.4	1.1	0.3	3.2	4.5	1.3	0.4	1.0	1.2	0.2	0.2	1.3	1.5	0.2	0.2
18	5.8	9.9	4.1	1.5	9.0	9.4	0.4	0.2	4.5	6.2	1.7	0.5	4.2	7.6	3.4	1.0	1.5	1.7	0.2	0.1	2.5	2.6	0.0	0.0
19	1.1	1.4	0.3	0.1	1.2	1.4	0.2	0.1	0.6	0.8	0.1	0.0	0.8	0.9	0.1	0.0	0.1	0.2	0.0	0.0	0.1	0.1	0.0	0.0
20	1.0	1.2	0.2	0.1	0.7	1.0	0.3	0.1	0.5	0.6	0.1	0.0	0.4	0.5	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0
21	2.9	4.5	1.5	0.6	3.1	4.2	1.1	0.4	2.4	3.3	0.9	0.3	2.5	3.4	0.9	0.3	0.6	0.9	0.2	0.2	0.8	1.1	0.3	0.2
22	6.2	11.4	5.2	2.0	5.0	9.4	4.4	1.6	3.5	6.8	3.3	0.9	3.1	5.1	2.0	0.6	0.8	1.1	0.3	0.3	1.0	1.2	0.2	0.2
23	6.4	3.7	-2.7	-1.0	6.8	6.8	0.0	0.0	5.5	3.2	-2.4	-0.7	5.1	4.3	-0.8	-0.2	1.7	1.0	-0.8	-0.6	1.3	0.8	-0.5	-0.4
24	6.6	11.4	4.8	1.8	6.4	10.3	3.9	1.5	5.6	6.8	1.2	0.3	5.6	5.9	0.2	0.1	2.8	1.9	-0.9	-0.7	2.6	1.5	-1.1	-0.9
25	5.1	10.9	5.8	2.2	5.1	10.1	5.0	1.9	4.7	8.7	4.0	1.2	4.2	6.4	2.2	0.6	2.2	2.1	0.0	0.0	1.8	1.4	-0.5	-0.4
26	6.9	13.8	6.9	2.6	4.8	10.3	5.4	2.0	3.5	7.6	4.2	1.2	3.2	5.7	2.5	0.7	0.9	1.3	0.5	0.4	1.1	1.4	0.2	0.2
27	4.6	5.1	0.5	0.2	4.6	6.5	1.9	0.7	4.0	3.7	-0.3	-0.1	4.0	4.8	0.8	0.2	1.4	1.2	-0.2	-0.1	0.9	1.2	0.3	0.3
28	4.7	5.2	0.5	0.2	4.6	6.3	1.7	0.6	4.0	3.7	-0.3	-0.1	4.0	4.8	0.9	0.2	1.4	1.1	-0.2	-0.2	0.9	1.2	0.3	0.2
29	4.3	5.6	1.3	0.5	4.4	6.9	2.4	0.9	3.6	3.4	-0.3	-0.1	3.8	5.1	1.3	0.4	1.1	1.0	-0.1	-0.1	0.8	0.8	0.0	0.0
30	4.0	5.6	1.6	0.6	4.3	7.2	2.9	1.1	3.4	3.9	0.6	0.2	3.5	5.0	1.5	0.4	0.9	0.9	0.0	0.0	0.7	0.8	0.0	0.0
31	3.9	5.7	1.8	0.7	4.1	6.9	2.8	1.0	3.2	4.3	1.1	0.3	3.3	5.1	1.7	0.5	0.9	1.0	0.1	0.1	0.7	0.8	0.1	0.1
32	3.1	4.1	1.0	0.4	3.3	4.7	1.4	0.5	2.6	3.3	0.7	0.2	2.8	4.0	1.2	0.3	0.9	0.9	0.0	0.0	0.8	1.1	0.2	0.2
33	3.9	5.4	1.5	0.6	4.1	6.1	2.0	0.8	3.3	3.6	0.3	0.1	3.5	4.5	1.1	0.3	1.1	1.0	-0.1	-0.1	0.7	0.9	0.1	0.1

Note: Values in bold are greater than a 10% increase of the short-term AQS

Table 5.57 Annual Mean Process Contribution ($\mu\text{g}/\text{m}^3$) at ELV for NO_2 , PM_{10} and $\text{PM}_{2.5}$ Base Case and Option 2 Phase 1

Species	NO_2								$\text{PM}_{10}/ \text{PM}_{2.5}$									
AQS ($\mu\text{g}/\text{m}^3$)	40								40/25									
Met Data	Port Talbot				Rhoose				Port Talbot					Rhoose				
Receptor ID	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS of $40 \mu\text{g}/\text{m}^3$	% of AQS of $25 \mu\text{g}/\text{m}^3$	Base case	Option 2	Change	% of AQS of $40 \mu\text{g}/\text{m}^3$	% of AQS of $25 \mu\text{g}/\text{m}^3$
1	0.7	0.7	0.0	0.1	0.6	0.7	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
2	1.3	1.3	0.0	0.0	0.9	0.9	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
3	4.2	4.2	0.1	0.2	5.5	5.5	0.1	0.2	0.7	0.7	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.0
4	1.7	1.9	0.1	0.4	3.8	4.3	0.4	1.1	0.3	0.3	0.0	0.0	0.1	0.6	0.7	0.0	0.1	0.2
5	1.8	2.0	0.1	0.4	1.2	1.2	0.1	0.2	0.3	0.3	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0
6	0.9	0.9	0.0	0.1	1.1	1.0	-0.1	-0.3	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.0	-0.1	-0.1
7	1.4	1.5	0.1	0.2	0.7	0.8	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
8	1.1	1.1	0.0	0.1	0.7	0.7	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
9	0.4	0.5	0.0	0.1	0.4	0.4	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
10	0.5	0.6	0.1	0.2	0.7	0.7	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
11	4.3	4.3	0.0	0.1	2.0	2.0	0.0	0.1	0.7	0.7	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0
12	1.4	1.4	0.1	0.2	1.6	1.8	0.1	0.4	0.2	0.2	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0
13	1.5	1.7	0.2	0.5	3.0	3.3	0.3	0.9	0.2	0.3	0.0	0.0	0.1	0.5	0.5	0.0	0.1	0.1
14	1.1	1.1	0.0	0.1	0.5	0.6	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
15	0.6	0.7	0.0	0.1	0.6	0.7	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
16	1.1	1.2	0.1	0.2	1.0	1.1	0.1	0.3	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0
17	0.8	0.8	0.1	0.2	1.0	1.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0
18	2.4	2.5	0.1	0.3	4.8	5.1	0.3	0.7	0.4	0.4	0.0	0.0	0.0	0.8	0.8	0.0	0.1	0.1
19	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.5	0.6	0.1	0.1	0.7	0.7	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
22	1.4	1.5	0.0	0.1	1.5	1.6	0.1	0.3	0.2	0.2	0.0	-0.0	0.0	0.2	0.2	0.0	0.0	0.0
23	1.7	1.7	0.0	0.0	0.9	0.9	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
24	3.8	3.9	0.1	0.2	2.4	2.4	0.0	0.1	0.6	0.6	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0
25	3.3	3.5	0.2	0.4	1.6	1.6	0.1	0.1	0.5	0.5	0.0	0.0	0.1	0.3	0.3	0.0	0.0	0.0
26	1.4	1.5	0.1	0.3	1.7	1.8	0.1	0.4	0.2	0.2	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0
27	0.9	0.9	0.0	0.1	0.7	0.7	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
28	0.9	0.9	0.0	0.1	0.7	0.7	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
29	1.0	1.0	0.0	0.1	0.6	0.6	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
30	1.0	1.0	0.0	0.1	0.5	0.6	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
31	0.9	0.9	0.0	0.1	0.5	0.5	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
32	0.5	0.5	0.0	0.1	0.5	0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
33	0.7	0.8	0.0	0.1	0.6	0.6	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0

Note: Values in bold are greater than a 1% increase of the long-term AQS

Table 5.58 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) at ELV for NO_2 and PM_{10} Base Case and Option 2 Phase 1

Species	NO_2								PM_{10}							
Statistic	99.79 th percentile of hourly averages								90.4 th percentile of daily averages							
AQS ($\mu\text{g}/\text{m}^3$)	200								50							
Met Data	Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor ID	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS
1	17.5	18.3	0.8	0.4	17.2	19.3	2.1	1.1	0.3	0.4	0.0	0.0	0.3	0.3	0.0	0.0
2	22.3	22.6	0.3	0.2	23.8	25.1	1.4	0.7	0.8	0.7	0.0	0.0	0.5	0.5	0.0	0.0
3	26.6	33.0	6.4	3.2	25.1	27.8	2.6	1.3	1.9	2.0	0.0	0.0	2.5	2.5	0.0	0.1
4	17.6	23.0	5.3	2.7	18.0	22.7	4.7	2.4	0.9	0.9	0.1	0.1	1.9	2.1	0.2	0.4
5	23.1	26.4	3.3	1.7	20.0	23.7	3.6	1.8	0.9	0.9	0.1	0.1	0.7	0.7	0.0	0.1
6	10.3	11.7	1.4	0.7	11.6	13.5	1.9	1.0	0.4	0.4	0.0	0.0	0.6	0.5	-0.1	-0.1
7	19.5	22.9	3.4	1.7	16.7	19.8	3.1	1.5	0.8	0.8	0.0	0.0	0.4	0.4	0.0	0.0
8	18.4	19.1	0.7	0.4	20.4	21.9	1.5	0.8	0.6	0.6	0.0	0.0	0.4	0.4	0.0	0.0
9	10.6	11.2	0.6	0.3	11.3	12.9	1.6	0.8	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.0
10	11.5	12.7	1.3	0.6	11.5	12.7	1.2	0.6	0.3	0.4	0.0	0.0	0.4	0.4	0.0	0.0
11	29.6	30.9	1.2	0.6	25.9	28.0	2.2	1.1	2.2	2.2	0.0	0.1	1.1	1.1	0.0	0.0
12	20.3	25.8	5.5	2.8	17.3	21.0	3.6	1.8	0.6	0.6	0.1	0.1	0.9	1.0	0.1	0.1
13	16.5	20.5	4.0	2.0	17.0	20.1	3.1	1.6	0.7	0.7	0.1	0.2	1.6	1.7	0.1	0.2
14	17.9	20.6	2.7	1.4	16.9	20.7	3.8	1.9	0.6	0.6	0.0	0.0	0.3	0.3	0.0	0.0
15	15.8	17.0	1.1	0.6	16.5	18.6	2.1	1.1	0.3	0.3	0.0	0.0	0.3	0.4	0.0	0.1
16	10.3	11.8	1.6	0.8	10.3	12.1	1.7	0.9	0.7	0.7	0.0	0.1	0.6	0.6	0.0	0.1
17	15.7	16.9	1.3	0.6	15.5	16.8	1.3	0.7	0.5	0.5	0.0	0.0	0.6	0.6	0.0	0.1
18	23.5	26.7	3.3	1.6	21.7	25.4	3.7	1.8	1.1	1.2	0.1	0.1	2.4	2.5	0.1	0.2
19	3.2	3.4	0.3	0.1	3.7	3.9	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0
20	2.6	2.7	0.1	0.1	2.0	2.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	11.6	12.8	1.2	0.6	11.8	12.9	1.0	0.5	0.3	0.3	0.0	0.1	0.4	0.4	0.0	0.0
22	20.8	26.2	5.4	2.7	16.4	19.4	3.1	1.5	0.6	0.6	0.0	0.1	0.8	0.8	0.0	0.1
23	26.6	26.6	0.0	0.0	27.6	28.0	0.4	0.2	1.0	0.9	0.0	0.0	0.5	0.5	0.0	0.0
24	26.0	32.3	6.3	3.2	26.4	30.7	4.4	2.2	1.8	1.8	0.0	0.0	1.3	1.3	0.0	0.0
25	22.4	27.9	5.6	2.8	20.4	25.8	5.4	2.7	1.7	1.8	0.1	0.2	0.9	1.0	0.0	0.0
26	21.6	26.4	4.8	2.4	17.7	21.6	3.9	2.0	0.6	0.7	0.1	0.1	0.9	1.0	0.1	0.1
27	19.2	20.3	1.1	0.6	19.2	21.1	1.9	1.0	0.4	0.4	0.0	0.0	0.3	0.4	0.0	0.1
28	18.6	19.7	1.0	0.5	18.5	20.6	2.1	1.1	0.4	0.4	0.0	0.0	0.3	0.3	0.0	0.0
29	16.9	19.0	2.1	1.0	18.3	20.3	1.9	1.0	0.6	0.6	0.0	0.0	0.4	0.4	0.0	0.0
30	16.5	19.0	2.5	1.3	17.0	20.1	3.0	1.5	0.6	0.6	0.0	0.0	0.3	0.3	0.0	0.0
31	15.8	18.8	3.0	1.5	16.5	19.5	3.1	1.5	0.5	0.5	0.0	0.0	0.2	0.3	0.0	0.0
32	12.0	13.3	1.3	0.6	13.4	15.2	1.7	0.9	0.2	0.2	0.0	0.0	0.3	0.3	0.0	0.0
33	15.4	16.2	0.8	0.4	16.5	18.6	2.1	1.1	0.4	0.4	0.0	0.0	0.3	0.3	0.0	0.0

Note: Values in bold are greater than a 10% increase of the short-term AQS

Table 5.59 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) at ELV for SO_2 Base Case and Option 2 Phase 1

Species	SO ₂																							
Statistic	99.9 th percentile of 15-minute averages								99.73 rd percentile of hourly averages								99.18 th percentile of daily averages							
AQS ($\mu\text{g}/\text{m}^3$)	266								350								125							
Met Data	Port Talbot				Rhoose				Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor ID	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS
1	95.3	105.0	9.7	3.7	96.6	109.2	12.6	4.7	82.8	86.6	3.8	1.1	82.1	90.0	7.9	2.3	26.8	28.9	2.2	1.8	23.5	25.3	1.8	1.4
2	120.6	128.0	7.3	2.8	133.7	139.5	5.8	2.2	106.5	108.2	1.6	0.5	111.7	114.6	2.9	0.8	43.2	43.7	0.5	0.4	27.8	27.8	0.0	0.0
3	292.8	292.8	0.0	0.0	261.2	261.2	0.0	0.0	135.2	139.7	4.5	1.3	131.0	132.9	1.9	0.6	75.1	75.1	0.0	0.0	64.6	64.6	0.0	0.0
4	105.8	128.8	23.0	8.6	120.1	132.9	12.8	4.8	84.4	100.5	16.1	4.6	86.5	104.5	18.0	5.1	23.2	27.0	3.8	3.1	44.8	49.6	4.8	3.8
5	141.6	165.0	23.4	8.8	136.6	152.8	16.2	6.1	107.7	120.4	12.7	3.6	89.9	92.5	2.6	0.8	28.4	32.1	3.7	3.0	21.8	22.5	0.7	0.6
6	69.9	81.4	11.4	4.3	79.2	91.7	12.5	4.7	50.2	53.3	3.1	0.9	56.3	59.3	3.0	0.9	11.7	12.9	1.2	1.0	13.9	14.5	0.6	0.5
7	109.9	124.8	14.9	5.6	100.2	114.5	14.3	5.4	89.0	104.3	15.2	4.4	74.6	88.3	13.7	3.9	29.7	34.5	4.8	3.9	21.6	21.6	0.1	0.1
8	100.0	106.3	6.3	2.4	111.0	119.0	8.0	3.0	88.7	89.5	0.8	0.2	95.8	99.9	4.1	1.2	34.0	33.9	0.0	0.0	22.7	24.4	1.6	1.3
9	62.0	69.4	7.4	2.8	68.3	76.9	8.6	3.2	49.3	51.5	2.2	0.6	53.7	59.6	5.9	1.7	13.8	14.4	0.6	0.5	11.9	13.0	1.1	0.9
10	69.3	77.0	7.7	2.9	68.7	73.8	5.1	1.9	56.2	59.4	3.2	0.9	56.1	60.0	3.9	1.1	14.8	15.7	0.9	0.7	19.2	20.9	1.6	1.3
11	154.0	169.1	15.2	5.7	142.1	157.4	15.4	5.8	142.1	144.4	2.3	0.7	118.1	130.6	12.5	3.6	62.3	62.3	0.0	0.0	47.9	48.9	1.0	0.8
12	155.9	186.0	30.2	11.3	126.8	144.1	17.3	6.5	90.6	108.1	17.5	5.0	72.4	87.9	15.4	4.4	19.3	22.3	2.9	2.3	25.8	29.1	3.3	2.7
13	118.1	153.8	35.7	13.4	133.5	146.8	13.3	5.0	79.6	93.6	14.0	4.0	81.4	94.7	13.3	3.8	24.3	29.1	4.8	3.9	40.7	45.1	4.4	3.5
14	96.7	109.5	12.8	4.8	102.3	117.7	15.4	5.8	79.8	91.5	11.7	3.3	80.7	90.2	9.5	2.7	22.0	23.7	1.7	1.3	16.5	17.7	1.1	0.9
15	88.2	96.1	7.9	3.0	95.8	104.7	8.9	3.4	75.3	79.2	3.9	1.1	80.7	87.7	7.0	2.0	26.7	27.9	1.2	1.0	23.8	25.6	1.8	1.4
16	57.7	66.4	8.7	3.3	78.3	85.1	6.8	2.6	51.1	57.2	6.1	1.8	51.0	57.9	6.9	2.0	32.5	36.3	3.9	3.1	23.4	26.3	2.9	2.3
17	88.2	93.4	5.2	2.0	88.9	95.5	6.6	2.5	75.2	79.7	4.4	1.3	73.6	79.9	6.3	1.8	22.1	23.7	1.6	1.3	29.1	31.3	2.2	1.8
18	152.6	174.1	21.5	8.1	214.1	238.2	24.2	9.1	104.4	121.6	17.2	4.9	112.1	114.5	2.4	0.7	34.4	35.6	1.2	1.0	52.1	55.8	3.7	3.0
19	26.4	27.0	0.7	0.3	27.7	28.2	0.5	0.2	14.2	15.3	1.1	0.3	16.5	17.0	0.5	0.1	2.9	3.1	0.1	0.1	2.8	2.9	0.1	0.1
20	22.3	23.1	0.9	0.3	16.9	17.7	0.7	0.3	11.4	11.9	0.5	0.2	8.8	9.0	0.2	0.1	1.6	1.6	0.0	0.0	2.2	2.3	0.1	0.1
21	68.4	75.4	7.0	2.6	71.7	76.5	4.8	1.8	55.9	60.3	4.4	1.3	57.6	61.9	4.3	1.2	14.1	15.1	1.0	0.8	18.5	20.1	1.6	1.3
22	147.3	174.9	27.5	10.4	120.5	141.7	21.2	8.0	88.6	107.0	18.4	5.3	79.5	89.2	9.7	2.8	18.9	21.7	2.8	2.3	22.5	24.7	2.2	1.8
23	144.5	145.0	0.6	0.2	153.8	163.4	9.6	3.6	119.0	119.0	0.0	0.0	112.5	120.3	7.8	2.2	40.6	40.3	-0.3	-0.2	31.1	32.8	1.7	1.3
24	145.6	173.7	28.2	10.6	150.1	168.7	18.6	7.0	122.9	135.5	12.5	3.6	120.7	136.0	15.4	4.4	56.8	56.8	0.0	0.0	55.0	55.0	0.0	0.0
25	121.2	150.5	29.3	11.0	117.0	142.8	25.8	9.7	106.9	122.9	16.0	4.6	94.7	106.5	11.8	3.4	44.8	45.7	0.9	0.7	38.7	41.5	2.8	2.2
26	169.0	191.1	22.1	8.3	125.0	144.0	19.0	7.1	87.0	120.2	33.2	9.5	81.0	96.6	15.6	4.5	20.8	23.9	3.1	2.5	26.8	29.9	3.1	2.5
27	105.0	112.0	6.9	2.6	104.4	113.0	8.6	3.2	89.8	93.1	3.2	0.9	91.3	98.0	6.7	1.9	31.4	32.9	1.5	1.2	20.8	22.5	1.7	1.4
28	102.2	108.5	6.2	2.4	103.5	111.7	8.2	3.1	88.2	92.4	4.2	1.2	89.3	96.4	7.1	2.0	30.7	31.7	1.0	0.8	20.3	22.8	2.5	2.0
29	93.8	102.6	8.9	3.3	99.1	113.7	14.6	5.5	77.2	82.2	5.1	1.5	83.1	92.7	9.5	2.7	24.5	24.8	0.3	0.3	20.1	23.0	2.8	2.3
30	91.7	102.6	10.9	4.1	101.2	114.9	13.7	5.2	77.3	83.9	6.6	1.9	79.1	87.8	8.7	2.5	20.6	22.7	2.1	1.7	17.9	20.3	2.4	1.9
31	87.6	101.7	14.1	5.3	95.0	107.4	12.4	4.6	72.2	81.4	9.2	2.6	75.0	85.6	10.6	3.0	19.4	21.8	2.4	1.9	16.1	17.5	1.4	1.1
32	70.1	78.0	7.9	3.0	77.4	84.3	6.9	2.6	58.1	62.7	4.6	1.3	63.6	70.1	6.5	1.9	18.6	19.6	1.1	0.9	19.3	20.9	1.5	1.2
33	86.7	97.4	10.6	4.0	91.7	102.3	10.6	4.0	72.3	77.3	5.1	1.4	78.1	82.7	4.7	1.3	24.7	26.0	1.3	1.1	16.4	17.6	1.2	1.0

Note: Values in bold are greater than a 10% increase of the short-term AQS



Table 5.60 Annual Mean Process Contribution ($\mu\text{g}/\text{m}^3$) at Realistic Emission Rates for NO_2 , PM_{10} and $\text{PM}_{2.5}$ Base Case and Option 2 Phase 1																		
Species	NO_2								$\text{PM}_{10}/\text{PM}_{2.5}$									
AQS ($\mu\text{g}/\text{m}^3$)	40								40/25									
Met Data	Port Talbot				Rhoose				Port Talbot					Rhoose				
Receptor ID	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS of $40 \mu\text{g}/\text{m}^3$	% of AQS of $25 \mu\text{g}/\text{m}^3$	Base case	Option 2	Change	% of AQS of $40 \mu\text{g}/\text{m}^3$	% of AQS of $25 \mu\text{g}/\text{m}^3$
1	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.2	0.2	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.5	0.5	0.1	0.2	0.7	0.7	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
4	0.3	0.4	0.1	0.4	0.5	0.9	0.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1
5	0.3	0.5	0.2	0.4	0.2	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.2	0.3	0.1	0.2	0.4	0.3	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.2	0.3	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.1	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.5	0.6	0.1	0.1	0.3	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.3	0.4	0.1	0.3	0.3	0.5	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.3	0.5	0.2	0.5	0.4	0.7	0.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1
14	0.2	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.2	0.3	0.1	0.3	0.2	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.1	0.2	0.1	0.2	0.2	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.3	0.4	0.1	0.3	0.6	0.8	0.3	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.4	0.5	0.1	0.2	0.3	0.4	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.2	0.2	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.5	0.6	0.1	0.2	0.3	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.4	0.6	0.2	0.4	0.2	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.3	0.4	0.1	0.4	0.3	0.5	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: Values in bold are greater than a 1% increase of the long-term AQS

Table 5.61 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) at Realistic Emission Rates for Base Case and Option 2 Phase 1

Species	NO ₂								CO								PM ₁₀							
Statistic	99.79 th percentile of hourly averages								Max 8-hour running average								90.4 th percentile of daily averages							
AQS ($\mu\text{g}/\text{m}^3$)	200 ^b								10,000								50							
Met Data	Port Talbot				Rhoose				Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor ID	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS
1	4.7	8.0	3.3	1.7	5.2	10.2	5.0	2.5	369	352	-16.9	-0.2	404	388	-15.6	-0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1
2	4.9	6.6	1.7	0.9	5.5	10.3	4.8	2.4	723	723	0.2	0.0	745	735	-9.5	-0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0
3	6.3	12.5	6.2	3.1	5.2	10.1	4.9	2.5	1,248	1,248	0.0	0.0	710	710	0.0	0.0	0.3	0.3	0.0	0.1	0.3	0.3	0.0	0.1
4	5.0	12.6	7.5	3.8	4.9	13.1	8.2	4.1	633	633	0.1	0.0	370	371	1.0	0.0	0.1	0.2	0.1	0.1	0.2	0.4	0.2	0.4
5	6.7	11.5	4.8	2.4	5.8	10.2	4.4	2.2	286	287	0.4	0.0	299	249	-50.8	-0.5	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1
6	3.8	6.2	2.4	1.2	4.6	6.8	2.1	1.1	129	114	-15.2	-0.2	151	132	-18.5	-0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0
7	5.1	12.0	6.9	3.4	4.9	10.3	5.4	2.7	361	361	0.1	0.0	335	335	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1
8	4.1	7.6	3.5	1.8	4.8	9.6	4.8	2.4	511	511	-0.2	0.0	532	523	-9.2	-0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
9	3.3	6.0	2.7	1.3	3.9	6.6	2.7	1.4	212	211	-1.6	0.0	194	183	-11.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	3.8	6.4	2.6	1.3	4.1	6.6	2.4	1.2	170	162	-7.5	-0.1	218	210	-7.8	-0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1
11	6.3	13.5	7.2	3.6	5.7	11.7	6.0	3.0	964	964	0.0	0.0	687	687	0.0	0.0	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.0
12	7.0	15.6	8.6	4.3	5.4	11.5	6.1	3.0	206	195	-10.2	-0.1	163	163	0.5	0.0	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2
13	4.8	12.3	7.6	3.8	5.4	10.5	5.1	2.6	249	249	0.6	0.0	293	294	0.7	0.0	0.1	0.2	0.1	0.1	0.2	0.4	0.1	0.3
14	4.2	9.0	4.8	2.4	4.7	10.9	6.2	3.1	373	373	0.2	0.0	365	365	0.2	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0
15	4.5	7.9	3.4	1.7	5.5	10.0	4.4	2.2	345	337	-8.3	-0.1	404	383	-20.9	-0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1
16	3.1	5.8	2.7	1.3	3.2	6.0	2.8	1.4	165	166	0.4	0.0	168	168	0.4	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1
17	4.6	8.1	3.5	1.7	5.0	8.8	3.9	1.9	292	286	-5.9	-0.1	344	337	-7.1	-0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1
18	5.3	11.9	6.6	3.3	5.0	12.8	7.8	3.9	519	519	0.1	0.0	661	661	0.0	0.0	0.1	0.2	0.0	0.1	0.3	0.4	0.1	0.2
19	1.3	1.8	0.5	0.2	1.7	2.2	0.4	0.2	48	41	-7.1	-0.1	29	24	-4.6	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	1.1	1.5	0.4	0.2	0.9	1.1	0.2	0.1	24	21	-3.3	0.0	21	19	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	3.9	6.4	2.5	1.2	4.3	6.7	2.4	1.2	181	166	-14.5	-0.1	213	201	-11.3	-0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1
22	6.5	13.5	7.0	3.5	5.4	10.0	4.6	2.3	236	218	-17.7	-0.2	155	156	0.2	0.0	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1
23	5.5	6.0	0.4	0.2	6.0	9.9	3.9	1.9	765	761	-4.2	0.0	663	663	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1
24	6.0	13.3	7.3	3.7	6.0	12.1	6.2	3.1	692	692	0.5	0.0	660	660	0.0	0.0	0.2	0.2	0.0	0.1	0.1	0.2	0.0	0.0
25	5.8	15.4	9.6	4.8	5.5	14.4	8.8	4.4	572	573	0.4	0.0	444	444	0.0	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1
26	6.2	15.4	9.2	4.6	5.6	11.3	5.7	2.8	230	219	-10.4	-0.1	183	178	-5.3	-0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2
27	4.7	8.3	3.6	1.8	5.2	10.4	5.2	2.6	476	476	0.0	0.0	477	469	-8.5	-0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1
28	4.5	8.2	3.7	1.8	5.2	10.4	5.3	2.6	488	488	0.0	0.0	486	478	-8.5	-0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1
29	4.0	7.0	3.0	1.5	4.8	9.8	5.0	2.5	447	446	-0.5	0.0	386	380	-6.1	-0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
30	3.9	7.7	3.7	1.9	4.6	10.0	5.4	2.7	387	387	-0.4	0.0	345	345	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
31	4.0	8.3	4.3	2.2	4.7	10.1	5.4	2.7	339	339	0.2	0.0	307	308	0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
32	4.0	6.8	2.8	1.4	4.8	8.2	3.4	1.7	245	240	-5.7	-0.1	286	268	-17.8	-0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
33	3.9	8.2	4.3	2.2	4.5	9.2	4.7	2.4	387	387	-0.5	0.0	382	373	-8.3	-0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1

Note: Values in bold are greater than a 10% increase of the short-term AQS

Table 5.62 - Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) at Realistic Emission Rates for SO_2 for Base Case and Option 2 Phase 1

Species	SO ₂																							
Statistic	99.9 th percentile of 15-minute averages								99.73 rd percentile of hourly averages								99.18 th percentile of daily averages							
AQS ($\mu\text{g}/\text{m}^3$)	266								350								125							
Met Data	Port Talbot				Rhoose				Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor ID	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS	Base case	Option 2	Change	% of AQS
1	4.2	5.6	1.4	0.5	4.3	6.0	1.7	0.7	3.7	4.4	0.6	0.2	3.6	4.8	1.3	0.4	1.2	1.5	0.3	0.3	1.0	1.3	0.3	0.3
2	5.3	5.8	0.5	0.2	5.7	7.5	1.8	0.7	4.6	4.8	0.3	0.1	5.0	5.7	0.7	0.2	2.0	2.0	0.0	0.0	1.2	1.3	0.0	0.0
3	10.6	10.9	0.3	0.1	9.1	9.3	0.2	0.1	5.0	7.9	2.9	0.8	4.7	6.4	1.7	0.5	2.7	2.7	0.0	0.0	2.8	2.9	0.0	0.0
4	4.5	7.2	2.8	1.0	4.6	7.9	3.3	1.3	3.5	5.8	2.3	0.7	3.8	6.2	2.5	0.7	1.1	1.5	0.4	0.4	2.0	2.8	0.8	0.6
5	6.1	9.3	3.1	1.2	5.9	8.0	2.1	0.8	4.4	6.3	2.0	0.6	3.8	5.0	1.3	0.4	1.2	1.7	0.5	0.4	0.9	1.1	0.2	0.2
6	2.7	4.5	1.8	0.7	3.5	4.7	1.2	0.5	2.0	2.8	0.8	0.2	2.4	3.1	0.7	0.2	0.5	0.7	0.2	0.1	0.6	0.8	0.1	0.1
7	4.6	7.0	2.4	0.9	4.1	6.3	2.2	0.8	3.9	5.7	1.8	0.5	3.3	4.6	1.3	0.4	1.4	1.8	0.4	0.3	1.1	1.1	0.0	0.0
8	4.6	5.6	0.9	0.4	4.8	6.6	1.8	0.7	3.9	4.3	0.4	0.1	4.3	5.1	0.8	0.2	1.5	1.7	0.2	0.2	1.0	1.1	0.1	0.1
9	2.7	3.6	0.9	0.4	3.3	4.2	0.9	0.4	2.2	2.7	0.5	0.1	2.3	3.2	0.9	0.3	0.6	0.7	0.1	0.1	0.5	0.7	0.2	0.1
10	3.0	4.0	1.1	0.4	2.9	3.9	1.0	0.4	2.4	3.2	0.8	0.2	2.4	3.2	0.8	0.2	0.7	0.8	0.2	0.1	0.8	1.1	0.3	0.2
11	6.8	9.5	2.7	1.0	6.4	8.6	2.2	0.8	6.4	7.0	0.6	0.2	5.5	6.3	0.8	0.2	3.0	3.0	0.0	0.0	2.2	2.4	0.2	0.2
12	6.5	10.8	4.3	1.6	4.9	7.2	2.4	0.9	3.7	6.1	2.3	0.7	3.1	4.6	1.6	0.5	0.8	1.2	0.5	0.4	1.1	1.5	0.4	0.3
13	4.7	9.5	4.7	1.8	5.1	7.3	2.2	0.8	3.2	5.2	2.0	0.6	3.3	5.0	1.7	0.5	1.0	1.6	0.6	0.5	1.7	2.5	0.8	0.7
14	4.2	6.2	2.0	0.8	4.3	6.3	2.0	0.8	3.7	5.0	1.3	0.4	3.5	5.0	1.4	0.4	1.0	1.2	0.2	0.1	0.7	0.9	0.2	0.2
15	4.0	5.2	1.2	0.5	4.0	5.7	1.6	0.6	3.4	4.1	0.6	0.2	3.5	4.7	1.2	0.3	1.2	1.4	0.2	0.2	1.0	1.4	0.3	0.3
16	2.4	3.5	1.2	0.4	3.0	4.9	1.9	0.7	2.1	3.0	0.9	0.3	2.1	3.1	1.0	0.3	1.4	1.9	0.5	0.4	1.0	1.4	0.4	0.3
17	3.8	5.1	1.3	0.5	3.8	5.1	1.3	0.5	3.3	4.1	0.9	0.3	3.2	4.4	1.2	0.3	1.0	1.3	0.3	0.3	1.3	1.6	0.3	0.3
18	5.8	9.6	3.8	1.4	9.0	10.3	1.4	0.5	4.5	6.8	2.3	0.7	4.2	6.7	2.5	0.7	1.5	1.7	0.2	0.2	2.5	3.1	0.5	0.4
19	1.1	1.3	0.2	0.1	1.2	1.4	0.1	0.0	0.6	0.8	0.1	0.0	0.8	0.9	0.1	0.0	0.1	0.2	0.0	0.0	0.1	0.1	0.0	0.0
20	1.0	1.2	0.2	0.1	0.7	1.0	0.3	0.1	0.5	0.6	0.1	0.0	0.4	0.5	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0
21	2.9	4.1	1.2	0.5	3.1	4.0	1.0	0.4	2.4	3.1	0.7	0.2	2.5	3.2	0.8	0.2	0.6	0.8	0.2	0.2	0.8	1.1	0.3	0.2
22	6.2	10.1	3.9	1.5	5.0	7.7	2.7	1.0	3.5	5.8	2.3	0.7	3.1	4.7	1.6	0.5	0.8	1.1	0.4	0.3	1.0	1.3	0.3	0.3
23	6.4	6.5	0.1	0.0	6.8	8.1	1.3	0.5	5.5	5.5	0.0	0.0	5.1	6.1	1.0	0.3	1.7	1.7	0.0	0.0	1.3	1.4	0.1	0.1
24	6.6	9.9	3.3	1.2	6.4	9.3	3.0	1.1	5.6	7.3	1.7	0.5	5.6	6.7	1.1	0.3	2.8	2.8	0.0	0.0	2.6	2.6	0.0	0.0
25	5.1	9.0	3.9	1.5	5.1	8.4	3.3	1.2	4.7	7.5	2.8	0.8	4.2	6.3	2.1	0.6	2.2	2.3	0.2	0.2	1.8	2.0	0.2	0.1
26	6.9	11.5	4.6	1.7	4.8	7.8	2.9	1.1	3.5	6.4	2.9	0.8	3.2	4.9	1.7	0.5	0.8	1.3	0.5	0.4	1.1	1.5	0.4	0.3
27	4.6	5.8	1.2	0.5	4.6	6.2	1.6	0.6	4.0	4.4	0.4	0.1	4.0	5.1	1.1	0.3	1.4	1.6	0.2	0.2	0.9	1.2	0.4	0.3
28	4.7	5.6	1.0	0.4	4.6	6.3	1.7	0.6	3.9	4.4	0.4	0.1	4.0	5.0	1.1	0.3	1.4	1.5	0.2	0.1	0.9	1.2	0.3	0.3
29	4.3	5.3	1.0	0.4	4.4	6.5	2.0	0.8	3.6	4.3	0.7	0.2	3.8	4.9	1.2	0.3	1.1	1.2	0.1	0.1	0.8	1.1	0.3	0.2
30	4.0	5.6	1.5	0.6	4.3	6.3	2.0	0.8	3.4	4.5	1.2	0.3	3.5	4.9	1.4	0.4	0.9	1.2	0.3	0.2	0.7	1.1	0.3	0.3
31	3.9	5.6	1.8	0.7	4.1	5.9	1.8	0.7	3.2	4.4	1.2	0.4	3.3	4.7	1.4	0.4	0.9	1.2	0.3	0.3	0.7	0.9	0.2	0.2
32	3.1	4.0	0.9	0.3	3.3	4.5	1.2	0.5	2.6	3.3	0.8	0.2	2.8	3.8	1.0	0.3	0.9	1.0	0.1	0.1	0.8	1.1	0.3	0.2
33	3.9	5.2	1.3	0.5	4.1	5.6	1.5	0.6	3.3	3.8	0.5	0.1	3.5	4.6	1.1	0.3	1.1	1.3	0.2	0.2	0.7	0.9	0.2	0.2

Note: Values in bold are greater than a 10% increase of the short-term AQS

Table 5.63 Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at ELV for Option 1																
Species	NO _x								SO ₂							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	30								10 or 20							
Meteorological Data	Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Bishops Wood	0.1	0.0	0.0	-0.1	0.1	0.1	0.0	-0.1	0.1	0.1	-0.1	-0.6	0.3	0.2	-0.1	-1.0
Blackmill Woodlands	0.2	0.2	0.0	-0.1	0.3	0.2	-0.1	-0.2	0.5	0.4	-0.1	-1.4	0.8	0.6	-0.2	-2.0
Blackmill Woodlands (2 parts)	0.2	0.2	0.0	-0.1	0.3	0.2	-0.1	-0.2	0.5	0.4	-0.1	-1.4	0.8	0.6	-0.2	-2.0
Blackpill, Swansea	0.1	0.1	0.0	-0.1	0.1	0.1	0.0	-0.1	0.2	0.1	-0.1	-0.8	0.3	0.2	-0.1	-1.3
Bracelet Bay	0.1	0.1	0.0	-0.1	0.2	0.1	0.0	-0.2	0.2	0.1	-0.1	-0.8	0.4	0.2	-0.1	-1.4
Bryn-Bach, Cefn Cribwr	0.3	0.2	-0.1	-0.3	0.4	0.2	-0.1	-0.4	0.7	0.5	-0.2	-2.3	0.9	0.6	-0.3	-3.2
Caeau Cefn Cribwr	0.3	0.2	-0.1	-0.3	0.4	0.2	-0.1	-0.4	0.8	0.5	-0.2	-2.5	0.9	0.6	-0.4	-3.5
Caswell Bay	0.1	0.0	0.0	-0.1	0.1	0.1	0.0	-0.1	0.1	0.1	-0.1	-0.5	0.3	0.2	-0.1	-0.9
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.3	0.2	-0.1	-0.3	0.4	0.2	-0.1	-0.4	0.7	0.5	-0.2	-2.3	0.9	0.6	-0.3	-3.2
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.3	0.2	-0.1	-0.3	0.4	0.2	-0.1	-0.4	0.8	0.5	-0.2	-2.5	0.9	0.6	-0.4	-3.6
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.4	0.3	-0.1	-0.3	0.3	0.2	-0.1	-0.3	0.9	0.6	-0.3	-2.9	0.8	0.5	-0.3	-3.1
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.4	0.3	-0.1	-0.4	0.3	0.2	-0.1	-0.4	1.1	0.7	-0.4	-3.7	0.8	0.5	-0.3	-3.2
Clemenstone Meadows, Wick	0.3	0.2	-0.1	-0.3	0.2	0.1	0.0	-0.2	0.7	0.5	-0.2	-2.3	0.4	0.2	-0.1	-1.4
Cors Crymlyn/Crymlyn Bog SSSI	0.2	0.2	-0.1	-0.2	0.2	0.2	-0.1	-0.2	0.6	0.4	-0.2	-2.1	0.6	0.4	-0.2	-2.1
Craig y Parciau Woodland	0.3	0.2	-0.1	-0.2	0.2	0.2	-0.1	-0.2	0.7	0.5	-0.2	-2.0	0.6	0.4	-0.2	-2.0
Crymlyn Bog	0.2	0.1	-0.1	-0.2	0.2	0.1	-0.1	-0.2	0.5	0.3	-0.2	-1.7	0.5	0.3	-0.2	-1.8
Crymlyn Bog	0.2	0.1	-0.1	-0.2	0.2	0.1	-0.1	-0.2	0.5	0.3	-0.2	-1.7	0.5	0.3	-0.2	-1.8
Crymlyn Bog	0.2	0.1	-0.1	-0.2	0.2	0.1	-0.1	-0.2	0.5	0.3	-0.2	-1.7	0.5	0.3	-0.2	-1.8
Crymlyn Bog / Cors Crymlyn SAC	0.2	0.2	-0.1	-0.2	0.2	0.2	-0.1	-0.2	0.5	0.4	-0.2	-1.8	0.5	0.4	-0.2	-1.7
Crymlyn Bog and Pant y Sais	0.2	0.1	-0.1	-0.2	0.2	0.1	-0.1	-0.2	0.5	0.3	-0.2	-1.8	0.5	0.3	-0.2	-1.8
Crymlyn Bog and Pant y Sais NNR	0.2	0.2	-0.1	-0.2	0.2	0.2	-0.1	-0.2	0.5	0.4	-0.2	-1.8	0.5	0.4	-0.2	-1.7
Crymlyn Bog RAMSAR	0.2	0.2	-0.1	-0.2	0.2	0.2	-0.1	-0.2	0.5	0.4	-0.2	-1.8	0.5	0.4	-0.2	-1.7
Crymlyn Burrows	0.3	0.2	-0.1	-0.3	0.3	0.2	-0.1	-0.3	0.7	0.4	-0.3	-2.6	0.7	0.5	-0.3	-2.6
Cwm Cyffog	0.2	0.1	-0.1	-0.2	0.2	0.1	0.0	-0.1	0.5	0.3	-0.2	-1.6	0.4	0.3	-0.1	-1.1
Cwm Du Woodlands	0.3	0.2	-0.1	-0.3	0.3	0.2	-0.1	-0.2	0.8	0.5	-0.3	-2.6	0.6	0.4	-0.2	-1.8
Cwm Risca Meadow	0.3	0.3	-0.1	-0.3	0.4	0.3	-0.1	-0.4	0.9	0.6	-0.3	-2.6	1.1	0.7	-0.3	-3.3
Cynffig/Kenfig SSSI	0.3	0.2	-0.1	-0.4	0.1	0.1	0.0	-0.2	0.8	0.4	-0.4	-3.9	0.3	0.1	-0.1	-1.4
Dunraven Bay	0.3	0.2	-0.1	-0.3	0.1	0.1	0.0	-0.1	0.8	0.5	-0.3	-3.0	0.3	0.2	-0.1	-1.1
Eaglesbush Valley	0.1	0.1	0.0	-0.1	0.1	0.1	0.0	-0.1	0.3	0.2	-0.1	-0.8	0.4	0.3	-0.1	-0.9
Eaglesbush Valley LNR	0.1	0.1	0.0	-0.1	0.1	0.1	0.0	-0.1	0.3	0.2	-0.1	-0.8	0.3	0.3	-0.1	-0.9
Eglwys Nunydd Reservoir	1.0	0.5	-0.5	-1.6	0.5	0.2	-0.2	-0.8	2.4	1.0	-1.3	-13.4	1.1	0.5	-0.7	-6.9
Eglwys Nunydd Reservoir SSSI	1.1	0.6	-0.6	-1.9	0.7	0.3	-0.4	-1.3	2.9	1.2	-1.7	-16.6	1.7	0.6	-1.1	-10.9
Eweny and Pant Quarries	0.3	0.2	-0.1	-0.3	0.2	0.1	-0.1	-0.2	0.8	0.5	-0.2	-2.3	0.5	0.3	-0.2	-1.7
Fforest Goch Bog SSSI	0.1	0.0	0.0	0.0	0.1	0.1	0.0	-0.1	0.1	0.1	0.0	-0.4	0.2	0.1	-0.1	-0.5

Table 5.63 Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at ELV for Option 1

Species	NO _x								SO ₂							
	30								10 or 20							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	Port Talbot				Rhoose				Port Talbot				Rhoose			
Meteorological Data	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Receptor	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Frog Pond Wood	0.4	0.3	-0.1	-0.4	0.3	0.2	-0.1	-0.4	1.1	0.7	-0.4	-3.8	0.8	0.5	-0.3	-3.2
Glais Moraine	0.1	0.1	0.0	-0.1	0.1	0.1	0.0	-0.1	0.2	0.2	-0.1	-0.7	0.2	0.2	-0.1	-0.7
Kenfig	0.3	0.2	-0.1	-0.5	0.1	0.1	0.0	-0.1	0.8	0.4	-0.4	-4.1	0.3	0.1	-0.1	-1.2
Kenfig (2 parts)	0.3	0.2	-0.1	-0.5	0.1	0.1	0.0	-0.1	0.8	0.4	-0.4	-4.1	0.3	0.1	-0.1	-1.2
Kenfig / Cynffig SAC	0.5	0.3	-0.2	-0.5	0.2	0.1	-0.1	-0.2	1.1	0.7	-0.5	-4.5	0.4	0.2	-0.2	-1.7
Kenfig / Cynffig SAC	0.4	0.3	-0.1	-0.5	0.2	0.1	-0.1	-0.2	1.1	0.7	-0.4	-4.2	0.4	0.2	-0.2	-1.8
Kenfig / Cynffig SAC	0.3	0.2	-0.1	-0.4	0.1	0.1	0.0	-0.2	0.8	0.4	-0.4	-3.9	0.3	0.1	-0.1	-1.4
Kenfig Pool and Dunes	0.4	0.2	-0.2	-0.5	0.1	0.1	0.0	-0.2	1.0	0.5	-0.5	-4.8	0.3	0.2	-0.1	-1.4
Kenfig Pool and Dunes	0.3	0.2	-0.1	-0.5	0.1	0.1	0.0	-0.1	0.9	0.4	-0.4	-4.3	0.3	0.1	-0.1	-1.3
Kenfig Pool and Dunes LNR	0.3	0.2	-0.1	-0.4	0.1	0.1	0.0	-0.2	0.8	0.4	-0.4	-3.9	0.3	0.1	-0.1	-1.4
Kenfig Pool and Dunes NNR	0.3	0.2	-0.1	-0.4	0.1	0.1	0.0	-0.2	0.8	0.4	-0.4	-3.9	0.3	0.1	-0.1	-1.4
Langland Bay (Rotherslade)	0.1	0.0	0.0	-0.1	0.1	0.1	0.0	-0.1	0.2	0.1	-0.1	-0.7	0.3	0.2	-0.1	-1.2
Locks Common	0.3	0.2	-0.1	-0.4	0.1	0.1	0.0	-0.1	0.7	0.4	-0.3	-3.3	0.2	0.1	-0.1	-1.0
Lock's Common LNR	0.3	0.2	-0.1	-0.4	0.1	0.1	0.0	-0.1	0.7	0.4	-0.3	-3.4	0.2	0.1	-0.1	-1.1
Margam Moors	0.5	0.3	-0.2	-0.8	0.2	0.1	-0.1	-0.3	1.3	0.6	-0.7	-6.9	0.4	0.2	-0.2	-2.3
Margam Moors SSSI	0.5	0.3	-0.2	-0.8	0.2	0.1	-0.1	-0.3	1.3	0.6	-0.7	-6.9	0.5	0.2	-0.3	-2.5
Merthyr Mawr	0.4	0.3	-0.1	-0.5	0.2	0.1	-0.1	-0.2	1.1	0.7	-0.4	-4.2	0.4	0.2	-0.2	-1.8
Merthyr Mawr SSSI	0.5	0.3	-0.2	-0.5	0.2	0.1	-0.1	-0.2	1.1	0.7	-0.5	-4.5	0.4	0.2	-0.2	-1.7
Merthyr Mawr Warren	0.4	0.3	-0.1	-0.5	0.2	0.1	-0.1	-0.2	1.1	0.7	-0.4	-4.1	0.4	0.2	-0.2	-1.8
Merthyr Mawr Warren NNR	0.5	0.3	-0.2	-0.5	0.1	0.1	-0.1	-0.2	1.1	0.7	-0.4	-4.5	0.4	0.2	-0.2	-1.6
Mumbles Hill LNR	0.1	0.1	0.0	-0.1	0.1	0.1	0.0	-0.1	0.2	0.1	-0.1	-0.8	0.4	0.2	-0.1	-1.3
Old Castle Down	0.3	0.2	-0.1	-0.3	0.2	0.1	-0.1	-0.2	0.8	0.5	-0.3	-2.5	0.4	0.3	-0.2	-1.6
Pant y Sais	0.2	0.2	-0.1	-0.2	0.2	0.2	-0.1	-0.2	0.5	0.4	-0.2	-1.8	0.5	0.4	-0.2	-1.7
Pant y Sais	0.2	0.2	-0.1	-0.2	0.2	0.2	-0.1	-0.2	0.5	0.4	-0.2	-1.8	0.5	0.4	-0.2	-1.7
Penplas Grasslands	0.1	0.1	0.0	-0.1	0.1	0.1	0.0	-0.1	0.2	0.1	-0.1	-0.7	0.3	0.2	-0.1	-0.9
Penycastell, Cefn Cribwr	0.4	0.3	-0.1	-0.4	0.3	0.2	-0.1	-0.4	1.1	0.7	-0.4	-3.7	0.8	0.5	-0.3	-3.2
Southerndown Coast	0.3	0.2	-0.1	-0.3	0.1	0.1	0.0	-0.1	0.8	0.5	-0.3	-3.0	0.3	0.2	-0.1	-1.1
Tremains Wood	0.2	0.2	-0.1	-0.2	0.3	0.2	-0.1	-0.2	0.6	0.4	-0.2	-1.6	0.7	0.4	-0.2	-2.1
Waun Cimla	0.4	0.3	-0.1	-0.3	0.4	0.2	-0.1	-0.4	0.9	0.6	-0.3	-2.8	0.9	0.5	-0.4	-3.8
Waun Fawr, Cefn Cribwr	0.4	0.3	-0.1	-0.3	0.3	0.2	-0.1	-0.3	0.9	0.6	-0.3	-2.9	0.8	0.5	-0.3	-3.0

Table 5.64 Short-term (Daily) Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Emission Limit Value for Base Case and Option 1								
Species	NO _x							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	75 for maximum daily							
Meteorological Data	Port Talbot				Rhoose			
Receptor	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Bishops Wood SSSI	1.4	1.2	-0.2	-0.3	1.3	0.9	-0.4	-0.5
Blackmill Woods SAC	2.3	2.2	-0.1	-0.1	2.2	1.6	-0.6	-0.9
Blackmill Woods SSSI	2.3	2.2	-0.1	-0.1	2.2	1.6	-0.6	-0.9
Blackpill SSSI	1.2	0.9	-0.3	-0.4	2.0	1.6	-0.4	-0.5
Bracelet Bay SSSI	2.1	1.6	-0.5	-0.7	1.4	0.9	-0.5	-0.7
Bryn-Bach SSSI	2.7	1.9	-0.7	-1.0	2.0	1.8	-0.3	-0.4
CaeauCefnCribwr SSSI	2.5	1.8	-0.7	-1.0	2.2	2.0	-0.3	-0.4
Caswell Bay SSSI	1.5	1.2	-0.3	-0.4	1.1	0.8	-0.3	-0.4
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	2.6	1.9	-0.7	-1.0	2.0	1.8	-0.3	-0.4
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	2.7	1.9	-0.7	-1.0	2.3	1.9	-0.4	-0.6
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	2.6	2.1	-0.5	-0.6	2.9	2.2	-0.7	-0.9
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	3.2	2.7	-0.6	-0.7	3.0	2.1	-0.8	-1.1
Clemenstone SSSI	2.9	2.0	-0.9	-1.2	1.3	0.9	-0.4	-0.5
Craig y Parciau LNR	2.3	1.9	-0.4	-0.6	2.4	2.0	-0.4	-0.5
Crymlyn Bog NNR	3.2	2.2	-0.9	-1.2	1.9	1.5	-0.4	-0.5
Crymlyn Bog NNR	3.2	2.8	-0.5	-0.6	2.3	1.8	-0.5	-0.6
Crymlyn Bog RAMSAR	2.9	2.1	-0.9	-1.2	1.9	1.5	-0.4	-0.5
Crymlyn Bog RAMSAR	3.2	2.8	-0.5	-0.6	2.3	1.8	-0.5	-0.6
Crymlyn Bog SAC	3.0	2.1	-0.9	-1.2	1.9	1.5	-0.4	-0.5
Crymlyn Bog SAC	3.2	2.8	-0.5	-0.6	2.3	1.8	-0.5	-0.6
Crymlyn Bog SSSI	3.0	2.1	-0.9	-1.2	1.9	1.5	-0.4	-0.5
Crymlyn Bog SSSI	3.9	2.9	-1.1	-1.4	2.2	1.8	-0.4	-0.6
Crymlyn Burrows SSSI	4.0	2.7	-1.3	-1.8	2.6	2.1	-0.5	-0.7
Cwm Cyffog SSSI	2.9	2.3	-0.6	-0.8	2.0	1.8	-0.2	-0.3
Cwm Du Woods SSSI	5.2	4.3	-0.9	-1.2	2.0	1.7	-0.3	-0.4
CwmRisca Meadow SSSI	3.6	2.9	-0.6	-0.9	3.0	2.5	-0.5	-0.7
Dunraven Bay SAC	3.8	2.5	-1.3	-1.8	1.5	0.9	-0.6	-0.8
Eaglebush Valley	1.6	1.3	-0.3	-0.5	5.1	3.9	-1.3	-1.7
EaglesbushValley LNR	1.4	1.1	-0.3	-0.4	4.2	3.1	-1.1	-1.4
Eglwys Nunydd Res	7.7	4.9	-2.7	-3.7	6.8	3.1	-3.7	-4.9
Eglwys Nunydd SSSI	6.9	4.4	-2.5	-3.4	4.6	2.6	-2.0	-2.6
Ewenny and Pant SSSI	3.0	2.5	-0.5	-0.7	2.0	1.4	-0.6	-0.8
Fforest Goch Bog	0.7	0.6	-0.2	-0.2	1.3	1.0	-0.3	-0.4
Frog Pond Wood LNR	3.3	2.8	-0.6	-0.8	2.9	2.1	-0.9	-1.1
Glais Moraine SSSI	2.7	2.1	-0.6	-0.8	1.2	1.1	-0.1	-0.2

Table 5.64 Short-term (Daily) Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Emission Limit Value for Base Case and Option 1								
Species	NO _x							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	75 for maximum daily							
Meteorological Data	Port Talbot				Rhoose			
Receptor	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Kenfig Poll & Dunes	3.9	2.7	-1.2	-1.6	3.4	2.2	-1.2	-1.7
Kenfig Poll & Dunes	3.9	2.7	-1.2	-1.6	3.4	2.2	-1.2	-1.7
Kenfig Pool LNR	4.1	2.8	-1.3	-1.7	2.7	1.8	-0.9	-1.3
Kenfig Pool NNR	3.9	2.6	-1.3	-1.7	2.8	1.8	-1.0	-1.3
Kenfig SSSI	4.0	2.7	-1.2	-1.6	2.7	1.7	-0.9	-1.2
Kenfig/Cynffig SAC	4.0	2.7	-1.2	-1.6	2.7	1.7	-0.9	-1.2
Kenfig/Cynffig SAC 1	5.0	3.1	-1.9	-2.6	2.0	1.1	-0.9	-1.1
Kenfig/Cynffig SAC 2	4.8	3.1	-1.7	-2.3	1.9	1.2	-0.7	-1.0
Kenfig/Cynffig SAC 3	3.9	2.7	-1.2	-1.6	3.4	2.2	-1.2	-1.7
Kenfig/Cynffig SSSI	3.9	2.7	-1.2	-1.6	3.4	2.2	-1.2	-1.7
Langland Bay SSSI	1.9	1.5	-0.4	-0.6	1.2	0.8	-0.4	-0.5
Lock's Common	2.8	2.0	-0.8	-1.1	2.1	1.4	-0.7	-0.9
Locks Common LNR	2.7	1.9	-0.8	-1.0	2.0	1.3	-0.7	-0.9
Margam Moors SSSI	7.3	4.1	-3.3	-4.4	3.6	2.2	-1.4	-1.8
Margam Moors SSSI	8.6	4.9	-3.6	-4.9	5.5	2.3	-3.3	-4.4
Merthyr Mawr NNR	4.6	3.1	-1.6	-2.1	1.9	1.2	-0.6	-0.9
Merthyr Mawr SSSI	4.8	3.1	-1.7	-2.3	1.9	1.2	-0.7	-1.0
Merthyr Mawr SSSI	5.0	3.1	-1.9	-2.6	2.0	1.1	-0.9	-1.1
Merthyr Mawr Warren	4.9	3.0	-1.9	-2.5	1.9	1.1	-0.8	-1.1
Mumbles Hill	2.1	1.7	-0.4	-0.6	1.4	0.9	-0.5	-0.6
Old Castle Down SSSI	3.2	2.3	-0.9	-1.2	1.5	1.0	-0.5	-0.6
Pant y Sais LNR	3.2	2.8	-0.5	-0.6	2.3	1.8	-0.5	-0.6
Pant y Sais SSSI	3.2	2.8	-0.5	-0.6	2.3	1.8	-0.5	-0.6
Penplas Grass SSSI	1.1	0.9	-0.2	-0.3	1.0	0.8	-0.2	-0.3
Penycastell SSSI	3.2	2.6	-0.6	-0.7	3.0	2.2	-0.8	-1.1
Southerndown SSSI	3.8	2.5	-1.3	-1.8	1.5	0.9	-0.6	-0.8
Tremains Wood LNR	1.7	1.4	-0.2	-0.3	2.0	1.7	-0.3	-0.4
Waun Cimla SSSI	2.4	1.9	-0.5	-0.7	2.5	2.0	-0.5	-0.7
Waun Fawr SSSI	2.6	2.1	-0.5	-0.6	2.9	2.2	-0.7	-0.9

Table 5.65 Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Realistic Emission Rates for Option 1

Species	NO _x								SO ₂							
	30								10 or20							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	Port Talbot				Rhoose				Port Talbot				Rhoose			
Meteorological Data	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Receptor	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Bishops Wood	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Blackmill Woodlands	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Blackmill Woodlands (2 parts)	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Blackpill, Swansea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bracelet Bay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bryn-Bach, Cefn Cribwr	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Caeau Cefn Cribwr	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Caswell Bay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Clemenstone Meadows, Wick	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cors Crymlyn/Crymlyn Bog SSSI	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Craig y Parciau Woodland	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog / Cors Crymlyn SAC	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog and Pant y Sais	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog and Pant y Sais NNR	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog RAMSAR	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Burrows	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cwm Cyffog	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cwm Du Woodlands	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cwm Risca Meadow	0.1	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Cynffig/Kenfig SSSI	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dunraven Bay	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eaglesbush Valley	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eaglesbush Valley LNR	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eglwys Nunydd Reservoir	0.2	0.2	0.0	-0.1	0.1	0.1	0.0	-0.1	0.1	0.1	0.0	-0.2	0.0	0.0	0.0	-0.1
Eglwys Nunydd Reservoir SSSI	0.3	0.3	0.0	-0.2	0.2	0.1	-0.1	-0.2	0.1	0.1	0.0	-0.2	0.1	0.1	0.0	-0.2
Eweny and Pant Quarries	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fforest Goch Bog SSSI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 5.65 Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Realistic Emission Rates for Option 1

Species	NO _x								SO ₂							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	30								10 or 20							
Meteorological Data	Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Frog Pond Wood	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Glais Moraine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig (2 parts)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig / Cynffig SAC	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig / Cynffig SAC	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig / Cynffig SAC	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig Pool and Dunes	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig Pool and Dunes	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig Pool and Dunes LNR	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig Pool and Dunes NNR	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Langland Bay (Rotherslade)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Locks Common	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lock's Common LNR	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Margam Moors	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Margam Moors SSSI	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Merthyr Mawr	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Merthyr Mawr SSSI	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Merthyr Mawr Warren	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Merthyr Mawr Warren NNR	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Mumbles Hill LNR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old Castle Down	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pant y Sais	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pant y Sais	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Penplas Grasslands	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Penycastell, Cefn Cribwr	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Southerndown Coast	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tremains Wood	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Waun Cimla	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Waun Fawr, Cefn Cribwr	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 5.66 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Realistic Emission Rates for Base Case and Option 1								
Species	NO _x							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	75 for maximum daily							
Meteorological Data	Port Talbot				Rhoose			
Receptor	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Bishops Wood SSSI	0.6	0.9	0.4	0.5	0.6	0.7	0.1	0.1
Blackmill Woods SAC	1.0	1.7	0.7	0.9	1.1	1.3	0.2	0.3
Blackmill Woods SSSI	1.0	1.7	0.7	0.9	1.1	1.3	0.2	0.3
Blackpill SSSI	0.6	0.7	0.1	0.1	0.9	1.3	0.4	0.6
Bracelet Bay SSSI	1.0	1.3	0.4	0.5	0.7	0.7	0.0	0.0
Bryn-Bach SSSI	1.3	1.5	0.2	0.2	1.0	1.4	0.4	0.6
CaeauCefnCribwr SSSI	1.2	1.5	0.3	0.4	1.1	1.6	0.5	0.6
Caswell Bay SSSI	0.6	0.9	0.3	0.4	0.5	0.6	0.1	0.1
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	1.3	1.5	0.2	0.2	0.9	1.4	0.4	0.6
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	1.2	1.5	0.3	0.5	1.1	1.5	0.4	0.5
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	1.1	1.7	0.6	0.8	1.3	1.8	0.6	0.7
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	1.4	2.2	0.8	1.1	1.3	1.8	0.5	0.7
Clemenstone SSSI	1.4	1.7	0.3	0.4	0.6	0.7	0.1	0.2
Craig y Parciau LNR	1.0	1.5	0.5	0.6	1.0	1.6	0.7	0.9
Crymlyn Bog NNR	1.3	1.8	0.5	0.7	0.8	1.3	0.5	0.7
Crymlyn Bog NNR	1.2	2.4	1.2	1.6	0.9	1.6	0.7	0.9
Crymlyn Bog RAMSAR	1.2	1.7	0.4	0.6	0.8	1.3	0.5	0.7
Crymlyn Bog RAMSAR	1.2	2.4	1.2	1.6	0.9	1.6	0.7	0.9
Crymlyn Bog SAC	1.3	1.7	0.5	0.6	0.8	1.3	0.5	0.7
Crymlyn Bog SAC	1.2	2.4	1.2	1.6	0.9	1.6	0.7	0.9
Crymlyn Bog SSSI	1.3	1.7	0.5	0.6	0.8	1.3	0.5	0.7
Crymlyn Bog SSSI	1.5	2.3	0.8	1.1	0.9	1.5	0.6	0.8
Crymlyn Burrows SSSI	1.7	2.3	0.6	0.8	1.0	1.8	0.8	1.0
Cwm Cyffog SSSI	1.3	1.8	0.5	0.7	0.8	1.4	0.6	0.7
Cwm Du Woods SSSI	2.2	3.5	1.4	1.8	0.8	1.5	0.7	1.0
CwmRisca Meadow SSSI	2.3	2.3	0.0	0.0	1.3	2.0	0.7	1.0
Dunraven Bay SAC	1.7	2.0	0.4	0.5	0.7	0.8	0.2	0.2
Eaglebush Valley	0.7	1.0	0.4	0.5	2.8	1.8	-0.9	-1.3
EaglesbushValley LNR	0.6	0.9	0.3	0.4	2.3	1.7	-0.6	-0.8
Eglwys Nunydd Res	4.7	4.0	-0.7	-0.9	3.9	2.4	-1.5	-2.0
Eglwys Nunydd SSSI	3.2	3.5	0.3	0.4	2.4	2.0	-0.4	-0.6
Eweny and Pant SSSI	1.4	2.1	0.7	1.0	0.9	1.1	0.3	0.3
Fforest Goch Bog	0.3	0.5	0.2	0.2	0.5	0.8	0.3	0.3
Frog Pond Wood LNR	1.4	2.2	0.8	1.1	1.3	1.8	0.5	0.7
Glais Moraine SSSI	1.1	1.8	0.7	0.9	0.5	1.0	0.5	0.6

Table 5.66 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Realistic Emission Rates for Base Case and Option 1								
Species	NO _x							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	75 for maximum daily							
Meteorological Data	Port Talbot				Rhoose			
Receptor	Base Case	Option 1	Change	% of AQS	Base Case	Option 1	Change	% of AQS
Kenfig Poll & Dunes	1.8	2.2	0.4	0.5	1.8	1.7	-0.1	-0.1
Kenfig Poll & Dunes	1.8	2.2	0.4	0.5	1.8	1.7	-0.1	-0.1
Kenfig Pool LNR	1.9	2.3	0.4	0.5	1.2	1.4	0.2	0.3
Kenfig Pool NNR	1.9	2.2	0.3	0.4	1.2	1.4	0.2	0.3
Kenfig SSSI	1.9	2.2	0.4	0.5	1.2	1.4	0.2	0.3
Kenfig/Cynffig SAC	1.9	2.2	0.4	0.5	1.2	1.4	0.2	0.3
Kenfig/Cynffig SAC 1	2.2	2.5	0.4	0.5	0.8	1.1	0.2	0.3
Kenfig/Cynffig SAC 2	2.1	2.6	0.5	0.7	0.9	1.2	0.3	0.5
Kenfig/Cynffig SAC 3	1.8	2.2	0.4	0.5	1.8	1.7	-0.1	-0.1
Kenfig/Cynffig SSSI	1.8	2.2	0.4	0.5	1.8	1.7	-0.1	-0.1
Langland Bay SSSI	0.8	1.2	0.3	0.4	0.6	0.6	0.0	0.0
Lock's Common	1.3	1.6	0.3	0.3	0.9	1.1	0.2	0.2
Locks Common LNR	1.3	1.5	0.3	0.3	0.9	1.0	0.2	0.2
Margam Moors SSSI	3.7	3.6	-0.2	-0.2	2.1	1.8	-0.3	-0.4
Margam Moors SSSI	4.3	4.0	-0.3	-0.3	3.4	2.0	-1.4	-1.9
Merthyr Mawr NNR	2.1	2.7	0.6	0.8	0.9	1.2	0.4	0.5
Merthyr Mawr SSSI	2.1	2.6	0.5	0.7	0.9	1.2	0.3	0.5
Merthyr Mawr SSSI	2.2	2.5	0.4	0.5	0.8	1.1	0.2	0.3
Merthyr Mawr Warren	2.1	2.4	0.4	0.5	0.8	1.0	0.2	0.3
Mumbles Hill	0.9	1.3	0.4	0.6	0.7	0.7	0.0	0.1
Old Castle Down SSSI	1.5	2.0	0.5	0.6	0.7	0.9	0.2	0.2
Pant y Sais LNR	1.2	2.4	1.2	1.6	0.9	1.6	0.7	0.9
Pant y Sais SSSI	1.2	2.4	1.2	1.6	0.9	1.6	0.7	0.9
Penplas Grass SSSI	0.5	0.7	0.2	0.3	0.5	0.6	0.2	0.3
Penycastell SSSI	1.3	2.1	0.8	1.0	1.3	1.8	0.6	0.7
Southerndown SSSI	1.7	2.0	0.4	0.5	0.7	0.8	0.2	0.2
Tremains Wood LNR	0.8	1.1	0.3	0.5	0.9	1.3	0.5	0.6
Waun Cimla SSSI	1.1	1.5	0.4	0.5	1.1	1.6	0.5	0.6
Waun Fawr SSSI	1.1	1.7	0.6	0.8	1.3	1.8	0.6	0.7

Table 5.67 Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at ELV for Base Case and Phase 1 of Option 2																
Species	NO _x								SO ₂							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	30								10 or 20							
Meteorological Data	Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor	Base Case	Option 2 Phase 1	Change	% of AQS	Base Case	Option 2	Change	% of AQS	Base Case	Option 21	Change	% of AQS	Base Case	Option 2	Change	% of AQS
Bishops Wood	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.3	0.3	0.0	0.0
Blackmill Woodlands	0.2	0.2	0.0	0.0	0.3	0.3	0.0	0.0	0.5	0.6	0.0	0.1	0.8	0.8	0.0	0.2
Blackmill Woodlands (2 parts)	0.2	0.2	0.0	0.0	0.3	0.3	0.0	0.0	0.5	0.6	0.0	0.1	0.8	0.8	0.0	0.2
Blackpill, Swansea	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.3	0.0	0.0
Bracelet Bay	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.4	0.0	0.0
Bryn-Bach, Cefn Cribwr	0.3	0.3	0.0	0.0	0.4	0.4	0.0	0.0	0.7	0.7	0.0	0.0	0.9	0.9	0.0	-0.1
Caeau Cefn Cribwr	0.3	0.3	0.0	0.0	0.4	0.4	0.0	0.0	0.8	0.8	0.0	0.1	0.9	0.9	0.0	-0.1
Caswell Bay	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.3	0.3	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.3	0.3	0.0	0.0	0.4	0.4	0.0	0.0	0.7	0.7	0.0	0.0	0.9	0.9	0.0	-0.1
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.3	0.3	0.0	0.0	0.4	0.4	0.0	0.0	0.8	0.8	0.0	0.1	0.9	0.9	0.0	-0.1
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.4	0.4	0.0	0.0	0.3	0.3	0.0	0.0	0.9	1.0	0.0	0.1	0.8	0.8	0.0	-0.1
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.4	0.4	0.0	0.0	0.3	0.3	0.0	0.0	1.1	1.1	0.0	0.1	0.8	0.8	0.0	0.0
Clemenstone Meadows, Wick	0.3	0.3	0.0	0.0	0.2	0.2	0.0	0.0	0.7	0.7	0.0	0.0	0.4	0.4	0.0	0.0
Cors Crymlyn/Crymlyn Bog SSSI	0.2	0.2	0.0	0.0	0.2	0.3	0.0	0.1	0.6	0.6	0.0	0.1	0.6	0.6	0.0	0.1
Craig y Parciau Woodland	0.3	0.3	0.0	0.0	0.2	0.2	0.0	0.0	0.7	0.7	0.0	0.1	0.6	0.6	0.0	0.0
Crymlyn Bog	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.5	0.5	0.0	0.1	0.5	0.5	0.0	0.1
Crymlyn Bog	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.5	0.5	0.0	0.1	0.5	0.5	0.0	0.1
Crymlyn Bog	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.5	0.5	0.0	0.1	0.5	0.5	0.0	0.1
Crymlyn Bog / Cors Crymlyn SAC	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.1	0.5	0.6	0.0	0.1	0.5	0.6	0.0	0.2
Crymlyn Bog and Pant y Sais	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.5	0.5	0.0	0.1	0.5	0.5	0.0	0.1
Crymlyn Bog and Pant y Sais NNR	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.1	0.5	0.6	0.0	0.1	0.5	0.6	0.0	0.2
Crymlyn Bog RAMSAR	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.1	0.5	0.6	0.0	0.1	0.5	0.6	0.0	0.2
Crymlyn Burrows	0.3	0.3	0.0	0.0	0.3	0.3	0.0	0.1	0.7	0.7	0.0	0.1	0.7	0.8	0.0	0.2
Cwm Cyffog	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.5	0.5	0.0	0.0	0.4	0.4	0.0	0.0
Cwm Du Woodlands	0.3	0.3	0.0	0.0	0.3	0.3	0.0	0.0	0.8	0.8	0.0	0.1	0.6	0.7	0.0	0.2
Cwm Risca Meadow	0.3	0.4	0.0	0.0	0.4	0.4	0.0	0.0	0.9	0.9	0.0	0.1	1.1	1.1	0.0	0.0
Cynffig/Kenfig SSSI	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.8	0.8	0.0	0.1	0.3	0.3	0.0	0.0
Dunraven Bay	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.0
Eaglesbush Valley	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.3	0.3	0.0	0.0	0.4	0.4	0.0	0.1
Eaglesbush Valley LNR	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.3	0.3	0.0	0.1	0.3	0.4	0.0	0.0
Eglwys Nunydd Reservoir	1.0	0.9	0.0	-0.1	0.5	0.4	0.0	-0.1	2.4	2.3	-0.1	-0.4	1.1	1.1	-0.1	-0.3
Eglwys Nunydd Reservoir SSSI	1.1	1.1	0.0	-0.1	0.7	0.6	-0.1	-0.2	2.9	2.7	-0.1	-0.7	1.7	1.5	-0.2	-0.8
Ewenny and Pant Quarries	0.3	0.3	0.0	0.0	0.2	0.2	0.0	0.0	0.8	0.8	0.0	0.1	0.5	0.5	0.0	0.0
Fforest Goch Bog SSSI	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.0
Frog Pond Wood	0.4	0.5	0.0	0.0	0.3	0.3	0.0	0.0	1.1	1.1	0.0	0.1	0.8	0.8	0.0	0.0

Table 5.67 Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at ELV for Base Case and Phase 1 of Option 2																
Species	NO _x								SO ₂							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	30								10 or 20							
Meteorological Data	Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor	Base Case	Option 2 Phase 1	Change	% of AQS	Base Case	Option 2	Change	% of AQS	Base Case	Option 21	Change	% of AQS	Base Case	Option 2	Change	% of AQS
Glais Moraine	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.3	0.0	0.1
Kenfig	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.0
Kenfig (2 parts)	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.0
Kenfig / Cynffig SAC	0.5	0.5	0.0	0.0	0.2	0.2	0.0	0.0	1.1	1.1	0.0	0.0	0.4	0.4	0.0	0.0
Kenfig / Cynffig SAC	0.4	0.4	0.0	0.0	0.2	0.2	0.0	0.0	1.1	1.1	0.0	0.0	0.4	0.4	0.0	0.0
Kenfig / Cynffig SAC	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.8	0.8	0.0	0.1	0.3	0.3	0.0	0.0
Kenfig Pool and Dunes	0.4	0.4	0.0	0.0	0.1	0.1	0.0	0.0	1.0	1.0	0.0	0.0	0.3	0.3	0.0	0.0
Kenfig Pool and Dunes	0.3	0.4	0.0	0.0	0.1	0.1	0.0	0.0	0.9	0.9	0.0	0.0	0.3	0.3	0.0	0.0
Kenfig Pool and Dunes LNR	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.8	0.8	0.0	0.1	0.3	0.3	0.0	0.0
Kenfig Pool and Dunes NNR	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.8	0.8	0.0	0.1	0.3	0.3	0.0	0.0
Langland Bay (Rotherslade)	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.3	0.0	0.0
Locks Common	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.7	0.7	0.0	0.0	0.2	0.2	0.0	0.0
Lock's Common LNR	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.7	0.7	0.0	0.0	0.2	0.2	0.0	0.0
Margam Moors	0.5	0.5	0.0	0.0	0.2	0.2	0.0	0.0	1.3	1.3	0.0	0.0	0.4	0.4	0.0	0.0
Margam Moors SSSI	0.5	0.5	0.0	0.0	0.2	0.2	0.0	0.0	1.3	1.3	0.0	0.0	0.5	0.5	0.0	0.0
Merthyr Mawr	0.4	0.4	0.0	0.0	0.2	0.2	0.0	0.0	1.1	1.1	0.0	0.0	0.4	0.4	0.0	0.0
Merthyr Mawr SSSI	0.5	0.5	0.0	0.0	0.2	0.2	0.0	0.0	1.1	1.1	0.0	0.0	0.4	0.4	0.0	0.0
Merthyr Mawr Warren	0.4	0.4	0.0	0.0	0.2	0.2	0.0	0.0	1.1	1.1	0.0	0.0	0.4	0.4	0.0	0.0
Merthyr Mawr Warren NNR	0.5	0.5	0.0	0.0	0.1	0.2	0.0	0.0	1.1	1.1	0.0	0.0	0.4	0.4	0.0	0.0
Mumbles Hill LNR	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.4	0.0	0.0
Old Castle Down	0.3	0.3	0.0	0.0	0.2	0.2	0.0	0.0	0.8	0.8	0.0	0.0	0.4	0.4	0.0	0.0
Pant y Sais	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.1	0.5	0.6	0.0	0.1	0.5	0.6	0.0	0.2
Pant y Sais	0.2	0.2	0.0	0.0	0.2	0.2	0.0	0.1	0.5	0.6	0.0	0.1	0.5	0.6	0.0	0.2
Penplas Grasslands	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.3	0.0	0.0
Penycastell, Cefn Cribwr	0.4	0.4	0.0	0.0	0.3	0.3	0.0	0.0	1.1	1.1	0.0	0.1	0.8	0.8	0.0	0.0
Southerndown Coast	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.0
Tremains Wood	0.2	0.2	0.0	0.0	0.3	0.3	0.0	0.0	0.6	0.6	0.0	0.1	0.7	0.7	0.0	0.0
Waun Cimla	0.4	0.4	0.0	0.0	0.4	0.4	0.0	0.0	0.9	0.9	0.0	0.1	0.9	0.9	0.0	-0.1
Waun Fawr, Cefn Cribwr	0.4	0.4	0.0	0.0	0.3	0.3	0.0	0.0	0.9	0.9	0.0	0.1	0.8	0.8	0.0	-0.1

Table 5.68: Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Emission Limit Value for Base Case and Option 2 Phase 1								
Species	NO _x							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	75 for maximum daily							
Meteorological Data	Port Talbot				Rhoose			
Receptor	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS
Bishops Wood SSSI	1.4	1.5	0.1	0.1	1.3	1.3	0.0	0.0
Blackmill Woods SAC	2.3	2.2	0.0	0.0	2.2	2.2	-0.1	-0.1
Blackmill Woods SSSI	2.3	2.2	0.0	0.0	2.2	2.2	-0.1	-0.1
Blackpill SSSI	1.2	1.1	0.0	-0.1	2.0	2.1	0.1	0.1
Bracelet Bay SSSI	2.1	2.2	0.0	0.0	1.4	1.3	-0.1	-0.1
Bryn-Bach SSSI	2.7	2.6	0.0	0.0	2.0	2.1	0.1	0.1
CaeauCefnCribwr SSSI	2.5	2.5	0.0	0.0	2.2	2.4	0.1	0.2
Caswell Bay SSSI	1.5	1.5	0.0	0.1	1.1	1.1	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	2.6	2.6	0.0	0.0	2.0	2.1	0.1	0.1
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	2.7	2.7	0.0	0.0	2.3	2.3	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	2.6	2.7	0.1	0.2	2.9	3.0	0.1	0.1
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	3.2	3.4	0.2	0.2	3.0	3.1	0.1	0.1
Clemenstone SSSI	2.9	2.8	0.0	0.0	1.3	1.3	0.0	0.0
Craig y Parciau LNR	2.3	2.4	0.1	0.1	2.4	2.5	0.1	0.2
Crymlyn Bog NNR	3.2	3.3	0.1	0.1	1.9	2.1	0.2	0.2
Crymlyn Bog NNR	3.2	3.6	0.4	0.5	2.3	2.5	0.2	0.2
Crymlyn Bog RAMSAR	2.9	3.0	0.1	0.1	1.9	2.0	0.2	0.2
Crymlyn Bog RAMSAR	3.2	3.6	0.4	0.5	2.3	2.5	0.2	0.2
Crymlyn Bog SAC	3.0	3.1	0.1	0.1	1.9	2.0	0.2	0.2
Crymlyn Bog SAC	3.2	3.6	0.4	0.5	2.3	2.5	0.2	0.2
Crymlyn Bog SSSI	3.0	3.1	0.1	0.1	1.9	2.0	0.2	0.2
Crymlyn Bog SSSI	3.9	4.1	0.2	0.2	2.2	2.3	0.1	0.1
Crymlyn Burrows SSSI	4.0	4.1	0.1	0.1	2.6	2.8	0.3	0.4
Cwm Cyffog SSSI	2.9	2.9	0.1	0.1	2.0	2.1	0.1	0.2
Cwm Du Woods SSSI	5.2	5.5	0.3	0.4	2.0	2.1	0.1	0.1
CwmRisca Meadow SSSI	3.6	3.7	0.1	0.2	3.0	3.1	0.1	0.2
Dunraven Bay SAC	3.8	3.8	0.0	0.0	1.5	1.5	0.0	0.0
Eaglebush Valley	1.6	1.7	0.1	0.1	5.1	4.7	-0.4	-0.6
EaglesbushValley LNR	1.4	1.5	0.1	0.1	4.2	3.8	-0.4	-0.5
Eglwys Nunydd Res	7.7	7.7	0.0	0.0	6.8	5.7	-1.0	-1.4
Eglwys Nunydd SSSI	6.9	6.8	-0.1	-0.2	4.6	4.3	-0.2	-0.3
Ewenny and Pant SSSI	3.0	3.1	0.1	0.1	2.0	2.0	0.0	0.0
Fforest Goch Bog	0.7	0.7	0.0	0.0	1.3	1.3	0.0	0.1
Frog Pond Wood LNR	3.3	3.5	0.2	0.2	2.9	3.0	0.1	0.1
Glais Moraine SSSI	2.7	2.9	0.2	0.2	1.2	1.4	0.1	0.2

Table 5.68: Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Emission Limit Value for Base Case and Option 2 Phase 1								
Species	NO _x							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	75 for maximum daily							
Meteorological Data	Port Talbot				Rhoose			
Receptor	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS
Kenfig Poll & Dunes	3.9	3.9	0.0	-0.1	3.4	3.2	-0.2	-0.3
Kenfig Poll & Dunes	3.9	3.9	0.0	-0.1	3.4	3.2	-0.2	-0.3
Kenfig Pool LNR	4.1	4.0	0.0	0.0	2.7	2.7	0.0	0.0
Kenfig Pool NNR	3.9	3.8	-0.1	-0.1	2.8	2.8	0.0	0.1
Kenfig SSSI	4.0	3.9	0.0	0.0	2.7	2.7	0.0	0.0
Kenfig/Cynffig SAC	4.0	3.9	0.0	0.0	2.7	2.7	0.0	0.0
Kenfig/Cynffig SAC 1	5.0	5.0	0.0	0.0	2.0	2.0	0.0	0.0
Kenfig/Cynffig SAC 2	4.8	4.8	0.0	0.0	1.9	2.0	0.0	0.0
Kenfig/Cynffig SAC 3	3.9	3.9	0.0	-0.1	3.4	3.2	-0.2	-0.3
Kenfig/Cynffig SSSI	3.9	3.9	0.0	-0.1	3.4	3.2	-0.2	-0.3
Langland Bay SSSI	1.9	1.9	0.0	0.0	1.2	1.1	-0.1	-0.1
Lock's Common	2.8	2.8	0.0	0.0	2.1	2.1	0.0	0.0
Locks Common LNR	2.7	2.7	0.0	0.0	2.0	2.0	0.0	0.0
Margam Moors SSSI	7.3	6.9	-0.5	-0.6	3.6	3.4	-0.2	-0.3
Margam Moors SSSI	8.6	8.1	-0.5	-0.6	5.5	4.7	-0.8	-1.1
Merthyr Mawr NNR	4.6	4.7	0.0	0.0	1.9	1.9	0.0	0.1
Merthyr Mawr SSSI	4.8	4.8	0.0	0.0	1.9	2.0	0.0	0.0
Merthyr Mawr SSSI	5.0	5.0	0.0	0.0	2.0	2.0	0.0	0.0
Merthyr Mawr Warren	4.9	4.9	0.0	0.0	1.9	1.9	0.0	0.0
Mumbles Hill	2.1	2.2	0.1	0.1	1.4	1.4	-0.1	-0.1
Old Castle Down SSSI	3.2	3.2	0.0	0.0	1.5	1.5	0.0	0.0
Pant y Sais LNR	3.2	3.6	0.4	0.5	2.3	2.5	0.2	0.2
Pant y Sais SSSI	3.2	3.6	0.4	0.5	2.3	2.5	0.2	0.2
Penplas Grass SSSI	1.1	1.2	0.0	0.0	1.0	1.0	0.0	0.0
Penycastell SSSI	3.2	3.4	0.2	0.2	3.0	3.1	0.1	0.1
Southerndown SSSI	3.8	3.8	0.0	0.0	1.5	1.5	0.0	0.0
Tremains Wood LNR	1.7	1.7	0.1	0.1	2.0	2.1	0.1	0.1
Waun Cimla SSSI	2.4	2.4	0.0	0.0	2.5	2.5	0.1	0.1
Waun Fawr SSSI	2.6	2.7	0.1	0.2	2.9	3.0	0.1	0.1

Table 5.69 Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Realistic Emission Rates for Base Case and Phase 1 of Option 2																
Species	NO _x								SO ₂							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	30								10 or 20							
Meteorological Data	Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS
Bishops Wood	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Blackmill Woodlands	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Blackmill Woodlands (2 parts)	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Blackpill, Swansea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bracelet Bay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bryn-Bach, Cefn Cribwr	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Caeau Cefn Cribwr	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Caswell Bay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Clemenstone Meadows, Wick	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cors Crymlyn/Crymlyn Bog SSSI	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Craig y Parciau Woodland	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog / Cors Crymlyn SAC	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog and Pant y Sais	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog and Pant y Sais NNR	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Bog RAMSAR	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crymlyn Burrows	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cwm Cyffog	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cwm Du Woodlands	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cwm Risca Meadow	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Cynffig/Kenfig SSSI	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dunraven Bay	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eaglesbush Valley	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eaglesbush Valley LNR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eglwys Nunydd Reservoir	0.2	0.3	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0
Eglwys Nunydd Reservoir SSSI	0.3	0.3	0.0	0.0	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0
Ewenny and Pant Quarries	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fforest Goch Bog SSSI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Frog Pond Wood	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

Table 5.69 Long-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Realistic Emission Rates for Base Case and Phase 1 of Option 2																
Species	NO _x								SO ₂							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	30								10 or 20							
Meteorological Data	Port Talbot				Rhoose				Port Talbot				Rhoose			
Receptor	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS
Glais Moraine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig (2 parts)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig / Cynffig SAC	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig / Cynffig SAC	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig / Cynffig SAC	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig Pool and Dunes	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig Pool and Dunes	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig Pool and Dunes LNR	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kenfig Pool and Dunes NNR	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Langland Bay (Rotherslade)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Locks Common	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lock's Common LNR	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Margam Moors	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Margam Moors SSSI	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Merthyr Mawr	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Merthyr Mawr SSSI	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Merthyr Mawr Warren	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Merthyr Mawr Warren NNR	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Mumbles Hill LNR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old Castle Down	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pant y Sais	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pant y Sais	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Penplas Grasslands	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Penycastell, Cefn Cribwr	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Southerndown Coast	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tremains Wood	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Waun Cimla	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Waun Fawr, Cefn Cribwr	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 5.70 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Realistic Emission Rates for Base Case and Option 2 Phase 1								
Species	NO _x							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	75 for daily maximum							
Meteorological Data	Port Talbot				Rhoose			
Receptor	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS
Bishops Wood SSSI	0.6	0.8	0.2	0.3	0.6	0.7	0.1	0.1
Blackmill Woods SAC	1.0	1.2	0.2	0.3	1.1	1.3	0.1	0.2
Blackmill Woods SSSI	1.0	1.2	0.2	0.3	1.1	1.3	0.1	0.2
Blackpill SSSI	0.6	0.6	0.0	0.0	0.9	1.1	0.3	0.4
Bracelet Bay SSSI	1.0	1.2	0.2	0.3	0.7	0.7	0.0	0.1
Bryn-Bach SSSI	1.3	1.4	0.1	0.1	1.0	1.1	0.2	0.2
CaeauCefnCribwr SSSI	1.2	1.4	0.2	0.3	1.1	1.3	0.2	0.2
Caswell Bay SSSI	0.6	0.8	0.2	0.2	0.5	0.6	0.1	0.1
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	1.3	1.4	0.1	0.1	0.9	1.1	0.2	0.2
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	1.2	1.4	0.2	0.3	1.1	1.2	0.1	0.1
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	1.1	1.4	0.3	0.5	1.3	1.6	0.4	0.5
Cefn Cribwr Grasslands SAC(Glaswelltiroedd)	1.4	1.8	0.5	0.6	1.3	1.7	0.4	0.5
Clemenstone SSSI	1.4	1.6	0.2	0.3	0.6	0.7	0.1	0.1
Craig y Parciau LNR	1.0	1.3	0.3	0.4	1.0	1.4	0.4	0.5
Crymlyn Bog NNR	1.3	1.7	0.4	0.5	0.8	1.1	0.3	0.4
Crymlyn Bog NNR	1.2	1.9	0.7	0.9	0.9	1.3	0.4	0.6
Crymlyn Bog RAMSAR	1.2	1.6	0.3	0.4	0.8	1.0	0.3	0.4
Crymlyn Bog RAMSAR	1.2	1.9	0.7	0.9	0.9	1.3	0.4	0.6
Crymlyn Bog SAC	1.3	1.6	0.3	0.4	0.8	1.1	0.3	0.4
Crymlyn Bog SAC	1.2	1.9	0.7	0.9	0.9	1.3	0.4	0.6
Crymlyn Bog SSSI	1.3	1.6	0.3	0.4	0.8	1.1	0.3	0.4
Crymlyn Bog SSSI	1.5	2.1	0.5	0.7	0.9	1.2	0.3	0.4
Crymlyn Burrows SSSI	1.7	2.1	0.4	0.5	1.0	1.4	0.4	0.6
Cwm Cyffog SSSI	1.3	1.6	0.3	0.4	0.8	1.1	0.3	0.4
Cwm Du Woods SSSI	2.2	3.0	0.8	1.1	0.8	1.1	0.3	0.4
CwmRisca Meadow SSSI	2.3	2.0	-0.3	-0.4	1.3	1.7	0.4	0.5
Dunraven Bay SAC	1.7	2.0	0.3	0.4	0.7	0.8	0.1	0.2
Eaglebush Valley	0.7	0.9	0.2	0.3	2.8	2.4	-0.4	-0.5
EaglesbushValley LNR	0.6	0.8	0.2	0.3	2.3	1.9	-0.3	-0.4
Eglwys Nunydd Res	4.7	4.1	-0.7	-0.9	3.9	3.3	-0.7	-0.9
Eglwys Nunydd SSSI	3.2	3.6	0.4	0.5	2.4	2.2	-0.2	-0.3
Eweny and Pant SSSI	1.4	1.8	0.4	0.6	0.9	1.1	0.2	0.2
Fforest Goch Bog	0.3	0.4	0.1	0.1	0.5	0.7	0.2	0.2
Frog Pond Wood LNR	1.4	1.9	0.5	0.7	1.3	1.6	0.4	0.5
Glais Moraine SSSI	1.1	1.5	0.4	0.6	0.5	0.8	0.3	0.4

Table 5.70 Short-term Process Contribution ($\mu\text{g}/\text{m}^3$) to Ecological Receptors at Realistic Emission Rates for Base Case and Option 2 Phase 1								
Species	NO _x							
Air Quality Standard ($\mu\text{g}/\text{m}^3$)	75 for daily maximum							
Meteorological Data	Port Talbot				Rhoose			
Receptor	Base Case	Option 2	Change	% of AQS	Base Case	Option 2	Change	% of AQS
Kenfig Poll & Dunes	1.8	2.1	0.3	0.4	1.8	1.9	0.1	0.1
Kenfig Poll & Dunes	1.8	2.1	0.3	0.4	1.8	1.9	0.1	0.1
Kenfig Pool LNR	1.9	2.2	0.3	0.4	1.2	1.4	0.2	0.3
Kenfig Pool NNR	1.9	2.2	0.3	0.4	1.2	1.4	0.3	0.4
Kenfig SSSI	1.9	2.2	0.3	0.4	1.2	1.4	0.2	0.3
Kenfig/Cynffig SAC	1.9	2.2	0.3	0.4	1.2	1.4	0.2	0.3
Kenfig/Cynffig SAC 1	2.2	2.5	0.4	0.5	0.8	1.0	0.2	0.3
Kenfig/Cynffig SAC 2	2.1	2.6	0.4	0.6	0.9	1.1	0.2	0.3
Kenfig/Cynffig SAC 3	1.8	2.1	0.3	0.4	1.8	1.9	0.1	0.1
Kenfig/Cynffig SSSI	1.8	2.1	0.3	0.4	1.8	1.9	0.1	0.1
Langland Bay SSSI	0.8	1.0	0.2	0.3	0.6	0.6	0.0	0.1
Lock's Common	1.3	1.6	0.2	0.3	0.9	1.1	0.2	0.3
Locks Common LNR	1.3	1.5	0.2	0.3	0.9	1.0	0.2	0.2
Margam Moors SSSI	3.7	3.8	0.1	0.1	2.1	2.0	-0.1	-0.1
Margam Moors SSSI	4.3	4.5	0.2	0.3	3.4	3.0	-0.4	-0.5
Merthyr Mawr NNR	2.1	2.5	0.5	0.6	0.9	1.1	0.2	0.3
Merthyr Mawr SSSI	2.1	2.6	0.4	0.6	0.9	1.1	0.2	0.3
Merthyr Mawr SSSI	2.2	2.5	0.4	0.5	0.8	1.0	0.2	0.3
Merthyr Mawr Warren	2.1	2.5	0.4	0.5	0.8	1.0	0.2	0.3
Mumbles Hill	0.9	1.2	0.3	0.3	0.7	0.8	0.1	0.1
Old Castle Down SSSI	1.5	1.8	0.3	0.4	0.7	0.8	0.1	0.2
Pant y Sais LNR	1.2	1.9	0.7	0.9	0.9	1.3	0.4	0.6
Pant y Sais SSSI	1.2	1.9	0.7	0.9	0.9	1.3	0.4	0.6
Penplas Grass SSSI	0.5	0.6	0.1	0.2	0.5	0.6	0.1	0.2
Penycastell SSSI	1.3	1.8	0.5	0.6	1.3	1.7	0.4	0.5
Southerndown SSSI	1.7	2.0	0.3	0.4	0.7	0.8	0.1	0.2
Tremains Wood LNR	0.8	0.9	0.2	0.2	0.9	1.1	0.3	0.3
Waun Cimla SSSI	1.1	1.3	0.2	0.3	1.1	1.4	0.3	0.4
Waun Fawr SSSI	1.1	1.4	0.3	0.5	1.3	1.7	0.4	0.5