Air Release Points

Please define your Release Points for Releases to Air

Are there any Air emissions? Yes

Number	Description	Location or Grid Reference	Activity or Activities	Effective Height (metres)	Efflux Velocity (m/s)	Total Flow (m3/hr)
1	Boiler 1	See Figure4	Biogas combustion (AD)	0	5	508
2	Boiler 2	See Figure4	Biogas combustion (AD)	0	5	508
3	Boiler 3	See Figure4	Biogas combustion (AD)	0	5	572
4	Boiler 4	See Figure4	Biogas combustion (Demon)	0		

Comments:
Flows at STP, dry, 3% O2
Flows calculated from thernal input, velocity estimated
Demon boielr spec unknow

Air Emissions Inventory

Please list all Substances released to Air for each Release Point identified in the previous page.

Number	Substance	Meas'ment Method	Operating Mode (% of	Data relating to Long Term effects			Data relating to Short Term effects			Annual Rate	ELV Conc.
				Conc. mg/m3	Release Rate g/s	Meas'ment Basis	Conc. mg/m3	Release Rate g/s	Meas'ment Basis	tonne/yr	mg/m3
1	Nitrogen Dioxide		100.0%								
2	Nitrogen Dioxide (Ecological - Daily Mean)		100.0%								
3	Sulphur Dioxide (15 Min Mean)		100.0%								
4	Sulphur Dioxide (1 Hour Mean)		100.0%								
5	Sulphur Dioxide (24 Hour Mean)		100.0%								
6	Sulphur Dioxide (Other Ecology)		100.0%								

Measurement method: * provide detail in comments box

Comments: Nitrogen dioxide converted from NOx ELVs

Air Emissions Inventory

Please list all Substances released to Air for each Release Point identified in the previous page.

Number	Substance	Meas'ment Method	Operating Mode (% of	Data relating to Long Term effects			Data relating to Short Term effects			Annual Rate	ELV Conc.
				Conc. mg/m3	Release Rate g/s	Meas'ment Basis	Conc. mg/m3	Release Rate g/s	Meas'ment Basis	tonne/yr	mg/m3
1	Nitrogen Dioxide	Estimated*	100.0%	175.0	0.027806		87.5	0.013903		0.8769	
2	Nitrogen Dioxide (Ecological - Daily Mean)	Estimated*	100.0%	250.0	0.039722		250.0	0.039722		1.2527	
3	Sulphur Dioxide (15 Min Mean)	Estimated*	100.0%	200.0	0.031778		200.0	0.031778		1.0021	
4	Sulphur Dioxide (1 Hour Mean)	Estimated*	100.0%	200.0	0.031778		200.0	0.031778		1.0021	
5	Sulphur Dioxide (24 Hour Mean)	Estimated*	100.0%	200.0	0.031778		200.0	0.031778		1.0021	
6	Sulphur Dioxide (Other Ecology)	Estimated*	100.0%	200.0	0.031778		200.0	0.031778		1.0021	

Measurement method: * provide detail in comments box

Comments: Nitrogen dioxide converted from NOx ELVs

Air Emissions Inventory

Please list all Substances released to Air for each Release Point identified in the previous page.

Number	Substance	Meas'ment Method	Operating Mode (% of	Data relating to Long Term effects			Data relating to Short Term effects			Annual Rate	ELV Conc.
				Conc. mg/m3	Release Rate g/s	Meas'ment Basis	Conc. mg/m3	Release Rate g/s	Meas'ment Basis	tonne/yr	mg/m3
1	Nitrogen Dioxide	Estimated*	100.0%	175.0	0.024694		87.5	0.012347		0.7788	
2	Nitrogen Dioxide (Ecological - Daily Mean)	Estimated*	100.0%	250.0	0.035278		250.0	0.035278		1.1125	
3	Sulphur Dioxide (15 Min Mean)	Estimated*	100.0%	200.0	0.028222		200.0	0.028222		0.8900	
4	Sulphur Dioxide (1 Hour Mean)	Estimated*	100.0%	200.0	0.028222		200.0	0.028222		0.8900	
5	Sulphur Dioxide (24 Hour Mean)	Estimated*	100.0%	200.0	0.028222		200.0	0.028222		0.8900	
6	Sulphur Dioxide (Other Ecology)	Estimated*	100.0%	200.0	0.028222		200.0	0.028222		0.8900	

Measurement method: * provide detail in comments box

Comments: Nitrogen dioxide converted from NOx ELVs

Air Emissions Inventory

Please list all Substances released to Air for each Release Point identified in the previous page.

Number	Substance	Meas'ment Method	Operating Mode (% of	Data relating to Long Term effects			Data relating to Short Term effects			Annual Rate	ELV Conc.
				Conc. mg/m3	Release Rate g/s	Meas'ment Basis	Conc. mg/m3	Release Rate g/s	Meas'ment Basis	tonne/yr	mg/m3
1	Nitrogen Dioxide	Estimated*	100.0%	175.0	0.024694		87.5	0.012347		0.7788	
2	Nitrogen Dioxide (Ecological - Daily Mean)	Estimated*	100.0%	250.0	0.035278		250.0	0.035278	Daily Mean	1.1125	
3	Sulphur Dioxide (15 Min Mean)	Estimated*	100.0%	200.0	0.028222		200.0	0.028222	15 Min Mean	0.8900	
4	Sulphur Dioxide (1 Hour Mean)	Estimated*	100.0%	200.0	0.028222		200.0	0.028222	1 Hr Mean	0.8900	
5	Sulphur Dioxide (24 Hour Mean)	Estimated*	100.0%	200.0	0.028222		200.0	0.028222	24 Hr Mean	0.8900	
6	Sulphur Dioxide (Other Ecology)	Estimated*	100.0%	200.0	0.028222		200.0	0.028222		0.8900	

Measurement method: * provide detail in comments box

Comments: Nitrogen dioxide converted from NOx ELVs

Air Impacts

Calculate Process Contributions of Emissions to Air

This table estimates the Process Contribution (PC), calculated as the maximum ground level concentration for each emission listed in the inventory, according to the release point parameters input earlier. If you have more accurate data obtained through dispersion modelling, this may be entered as indicated and will be used instead of the estimated PC.

		Long Term			Short Term		
Number	Substance	EAL µg/m3	PC µg/m3	* Modelled PC µg/m3	EAL µg/m3	PC µg/m3	Modelled PC µg/m3
1	Nitrogen Dioxide	40	11.5		200	151	
2	Nitrogen Dioxide (Ecological - Daily Mean)	30	16.4		75	430	
3	Sulphur Dioxide (15 Min Mean)		13.1		266	344	
4	Sulphur Dioxide (1 Hour Mean)		13.1		350	344	
5	Sulphur Dioxide (24 Hour Mean)		13.1		125	344	
6	Sulphur Dioxide (Other Ecology)	20	13.1			344	

Note that the Process Contribution shown for each substance is the sum of the individual process contributions of each point from which the substance is emitted. Process Contributions obtained from modelling data should incorporate all relevant release points and flow conditions.

* State the location of any detailed air dispersion modelling and also the main assumptions:

Comments:

Air Impact Screening Stage One

Screen out Insignificant Emissions to Air

This page displays the Process Contribution as a proportion of the EAL or EQS. Emissions with PCs that are less than the criteria indicated may be screened from further assessment as they are likely to have an insignificant impact.

Number	Substance	Long Term EAL	Short Term EAL	Long Term			Short Term		
				PC	% PC of EAL	> 1% of EAL?	PC	% PC of EAL	> 10% of EAL?
		µg/m3	µg/m3	µg/m3	%		µg/m3	%	
1	Nitrogen Dioxide	40.0	200	11.5	28.6	**Yes**	151	75.3	**Yes**
2	Nitrogen Dioxide (Ecological - Daily Mean)	30.0	75.0	16.4	54.5	**Yes**	430	573	**Yes**
3	Sulphur Dioxide (15 Min Mean)	-	266	13.1	-		344	129	**Yes**
4	Sulphur Dioxide (1 Hour Mean)	-	350	13.1	-		344	98.4	**Yes**
5	Sulphur Dioxide (24 Hour Mean)	-	125	13.1	-		344	275	**Yes**
6	Sulphur Dioxide (Other Ecology)	20.0	-	13.1	65.3	**Yes**	344	-	

Air Impact Modelling Stage Two Screening

Identify need for Detailed Modelling of Emissions to Air

This page displays the Process Contributions in relation to the backgound pollutant levels and the EAL or EQS. You should use this information to decide whether to conduct detailed modelling. Note that releases that are insignificant are not shown as they are screened from further assessment. Also complete this page if you have already done detailed modelling.

			Long Term					Short Term		
Number	Substance	Air Bkgrnd Conc. µg/m3	PC µg/m3	% PC of headroom (EAL -	PEC mg/m3	% PEC of EAL %	% PEC of EAL >=70?	PC µg/m3	% PC of headroom (EAL - Bkgrnd)	% PC of headroom >=20?
1	Nitrogen Dioxide	10.6	11.5	38.9	22.0	55.1	**No**	151	84.2	**Yes**
2	Nitrogen Dioxide (Ecological - Daily Mean)	16	16.4	117	32.4	108	**Yes**	430	1,000	**Yes**
3	Sulphur Dioxide (15 Min Mean)	1.6	13.1	-	0	-		344	131	**Yes**
4	Sulphur Dioxide (1 Hour Mean)	1.6	13.1	-	0	-		344	99.3	**Yes**
5	Sulphur Dioxide (24 Hour Mean)	1.6	13.1	-	0	-		344	282	**Yes**
6	Sulphur Dioxide (Other Ecology)	1.6	13.1	71.0	14.7	73.3	**Yes**	344	-	

Deposition to Land from Air

With reference to H1 Guidance, describe assessment of deposition below:

Number	Substance	% PC of EAL	Insignificant?	Decision whether to screen as insignificant: Reason (See section "Deposition of air emissions onto land/Screen out insignificant emissions" of Annex F in H1).
		%		
1	Nitrogen Dioxide	28.6	No	
2	Nitrogen Dioxide (Ecological - Daily Mean)	54.5	No	
3	Sulphur Dioxide (15 Min Mean)	-	No	
4	Sulphur Dioxide (1 Hour Mean)	-	No	
5	Sulphur Dioxide (24 Hour Mean)	-	No	
6	Sulphur Dioxide (Other Ecology)	65.3	No	

For those emissions not screened as insignificant, describe the location of any further assessment here: