

Reference Information

Please complete the following information:

Company Name: Newhurst ERF - Line 1 & 2

Location: Newhurst Quarry, Shepshed, Leicestershire

Permit Number: EP Application

Describe the Objectives

Depending on the reason for the assessment, you will need to complete different modules of the guidance.

Select the type of assessment:

- a) to conduct a costs/benefits OPTIONS APPRAISAL to determine BAT for selected releases from an installation Do modules 1,2, 3 and 4 and continue with 5 and 6 if necessary
- b) to carry out an ENVIRONMENTAL ASSESSMENT of the emissions resulting from the installation as a whole Do modules 1, 2 and 3 only

1.1 Briefly summarise the objectives and reason for the assessment in terms of the main environmental impacts or emissions to be controlled:

GWP100 and Environmental Assessment of energy releases as CO₂e and nitrous oxide (N₂O)

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	Efflux Velocity	Total Flow
				metres	m/s	m3/hr
1	A1 (Line 1 Stack)		ERF Line 1	95	23.22	104292
2	A2 (Line 2 Stack)		ERF Line 2	95	23.22	104292

Comments: Comment 1. Values derived from Application 2009 AQ Section
Comment 2 . Velocity actual Am/s (at temp) and flow normal Nm3/h (at reference conditions).

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 (if relevant)	Data relating to Long Term effects			Data relating to Short Term effects			Annual Rate	ELV Conc.
				Conc.	Release Rate	Meas'ment Basis	Conc.	Release Rate	Meas'ment Basis		
				mg/m3	g/s		mg/m3	g/s			
1	Nitrous Oxide (2)	Estimated*	Full Load	20	0.5794	annual avg	30	0.8691	hourly avg	13.31	

Measurement method: * provide detail in comments box
 Comments: Comment 1. Operation 7900 hours per year.
 Comment 2. N2O conc from BAT EPR 5.01

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Energy Consumption

Please list all Energy Sources and Annual Consumption

Select energy sources by Clicking on 'Add' and using the pull-down list.

Number	Energy Sources		Delivered MWh/yr	Conversion Factor	Primary MWh/yr	CO2 Factor	CO2 tonne/yr
1	Electricity from public supply	indirect emissions	40000	2.60	104,000	0.17	17,264
2	Gas oil	direct emissions	5000	1.00	5,000	0.25	1,250
3	Other Fuel	direct emissions	775000	1.00	775,000	0.25	193,750

Comments: Estimated values based on 2 x 150,000 lines

Global Warming Potential Impacts

Substance	Source	Annual Rate tonne/yr	GWP Value per tonne	Annual GWP
CO2 Energy: direct	direct emissions	780,000.00	1.00	195,000.00
CO2 Energy: indirect	indirect emissions	40,000.00	1.00	17,264.00
Nitrous Oxide (2) Process: direct	A1 (Line 1 Stack)	13.31	310.00	4,126.10
Nitrous Oxide (2) Process: direct	A2 (Line 2 Stack)	13.31	310.00	4,126.10
			Total:	220,516.20

Comments: CO2 Energy Direct & CO2 Energy Indirect for lines 1 2 from application.

Global Warming - Substance Comparison

