



ENVIRONMENTAL STATEMENT: 6.3 APPENDIX 6-5: OPERATIONAL NOISE MODELLING ASSUMPTIONS

DECARBONISATION

Cory Decarbonisation Project

PINS Reference: EN010128

March 2024

Revision A

APPENDIX 6-5: OPERATIONAL NOISE MODELLING ASSUMPTIONS

Table 1 identifies the assumptions made for sound power levels and heights of each noise source that has been modelled for the operation phase of the Proposed Scheme, based on the evolving design.

Table 1: Operation Noise Source Assumptions

Noise Source	Sound Power Level L_{WA} dB (A)	Height (m)	Information Source
Stack(s)	103	60	Sound power level equivalent to the stack for Riverside 2, excludes the Absorber Column(s). Height of the Absorber Column(s) and Stack(s) is 113m as described in Section 2.2 of Chapter 2: Site and Proposed Scheme Description (Volume 1) .
Flue Gas Fan	85	9.8	Based on similar development (professional judgement).
Pumps	104	1	WKC Group Pump Noise Calculator, 450kW rich solution pump, assumed worst-case speed range.
Pumps associated with solvent/waste tanks	96	1	WKC Group Pump Noise Calculator, 100kW pump, assumed 1500rpm speed range.
Back Pressure turbines	85	6	Based on similar development (professional judgement).
33/11kV Transformers	78	6	Based on NEMA TR1 and IEEE standards for specifying sound pressure and converting to sound power.
132/33kV Transformers	86	6	Based on NEMA TR1 and IEEE standards for specifying sound pressure and converting to sound power.
CO ₂ Vents	110	11.6	Based on similar development (professional judgement).
CO ₂ Compressors	90	11	The CO ₂ compressors are a part of the Compression Plant. The height of the plant is detailed in Section 2.2 of

Noise Source	Sound Power Level L_{WA} dB (A)	Height (m)	Information Source
			Chapter 2: Site and Proposed Scheme Description (Volume 1).
Refrigeration Package	98	1	Based on similar development (professional judgement).
Cooling Solution	93	15	Assumed as part of design based on similar developments.
Heat Transfer Station Cooling Fans	98	7.75	Assumed as part of design based on similar developments, height assumed to be 2.5m above the roof of building as a worst case.



DECARBONISATION

10 Dominion Street
Floor 5
Moorgate, London
EC2M 2EF
Contact Tel: 020 7417 5200
Email: enquiries@corygroup.co.uk
corygroup.co.uk