

**Appendix 8.1: Operational Noise Model Input Data**

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**Operational Noise Model Input Data**

	Quanta	Source Type		Source Dimensions (m)			Height above Ground (m)	Overall, dBA	Sound Pressure / Power Level Spectral Shape, dBA								On time/ Other Inputs
		Type	Index	x	y	z			63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
Tipping Hall	1	Industrial Building	L <sub>i</sub>	-	-	13.2	0	80	52	62	67	72	75	76	71	60	100%
Bunker	1	Industrial Building	L <sub>i</sub>	-	-	32.5	0	80	52	62	67	72	75	76	71	60	100%
Waste Processing Hall	1	Industrial Building	L <sub>i</sub>	-	-	12.9	0	80	56	66	71	73	75	72	71	66	100%
Boiler Hall	1	Industrial Building	L <sub>i</sub>	-	-	36 / 29	0	85	59	68	75	79	80	79	73	64	100%
FGT Zone	1	Industrial Building	L <sub>i</sub>	-	-	16.5 / 23	0	85	59	68	75	79	80	79	73	64	100%
Turbine Hall	1	Industrial Building	L <sub>i</sub>	-	-	26	0	95	64	74	81	83	93	87	84	78	100%
Electrical Room	1	Industrial Building	L <sub>i</sub>	-	-	9.5	0	80	50	65	71	77	74	70	65	56	100%
Water Treatment Room	1	Industrial Building	L <sub>i</sub>	-	-	9.5	0	85	59	68	75	79	80	79	73	64	100%
Bottom Ash Hall	1	Industrial Building	L <sub>i</sub>	-	-	2	0	75	49	58	65	69	70	69	63	54	100%
ACC	1	Area	L <sub>w</sub>	-	-	-	17.5	97	78	87	89	91	91	88	83	73	100%
Turbine Air Coolers	1	Area	L <sub>w</sub>	-	-	-	10.5	95	76	85	87	89	89	86	81	71	100%
Stack	1	Point	L <sub>w</sub>	-	-	-	95	91	89	92	87	75	82	79	79	84	100%
Transformer	1	Point	L <sub>w</sub>	-	-	-	1	83	53	68	74	80	77	73	68	59	100%
Front End Loader (within waste sorting area)	1	Area	L <sub>w</sub>	-	-	-	1	107	89	94	96	103	101	99	93	84	50%
HGVs	1	Point	L <sub>w</sub>	-	-	-	0.5	81	70	66	65	70	77	73	72	63	18 / hour

Building	Material / Element	Transmission Loss (dB)								
		R <sub>w</sub>	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Tipping Hall and Bunker Zone	Cladding and Roof	26	20	18	20	24	20	29	39	47
Boiler Hall and FGT Zone	Cladding and Roof	26	20	18	20	24	20	29	39	47
Turbine Hall	Cladding and Roof	42	12	19	32	42	50	52	60	60
Turbine Hall	Roof	32	61	65	60	54	53	44	21	24
Electrical Room	Cladding	26	20	18	20	24	20	29	39	47

<b>Water Treatment Room</b>	<b>Cladding</b>	26	20	18	20	24	20	29	39	47
<b>Bottom Ash Hall</b>	<b>Cladding</b>	26	20	18	20	24	20	29	39	47

<b>Other modelled Elements</b>	<b>Element Type</b>	<b>Height above ground (m)</b>	<b>Height of element (m)</b>
<b>ACC Partial Enclosure</b>	<b>Floating Screen</b>	<b>9</b>	<b>17</b>
<b>Enclosure Around Loading Shovel</b>	<b>Noise Protection Wall</b>	<b>0</b>	<b>8.8</b>