Appendix 11A

Noise Survey Data

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Tynagh Power Station Noise Survey
July 2021

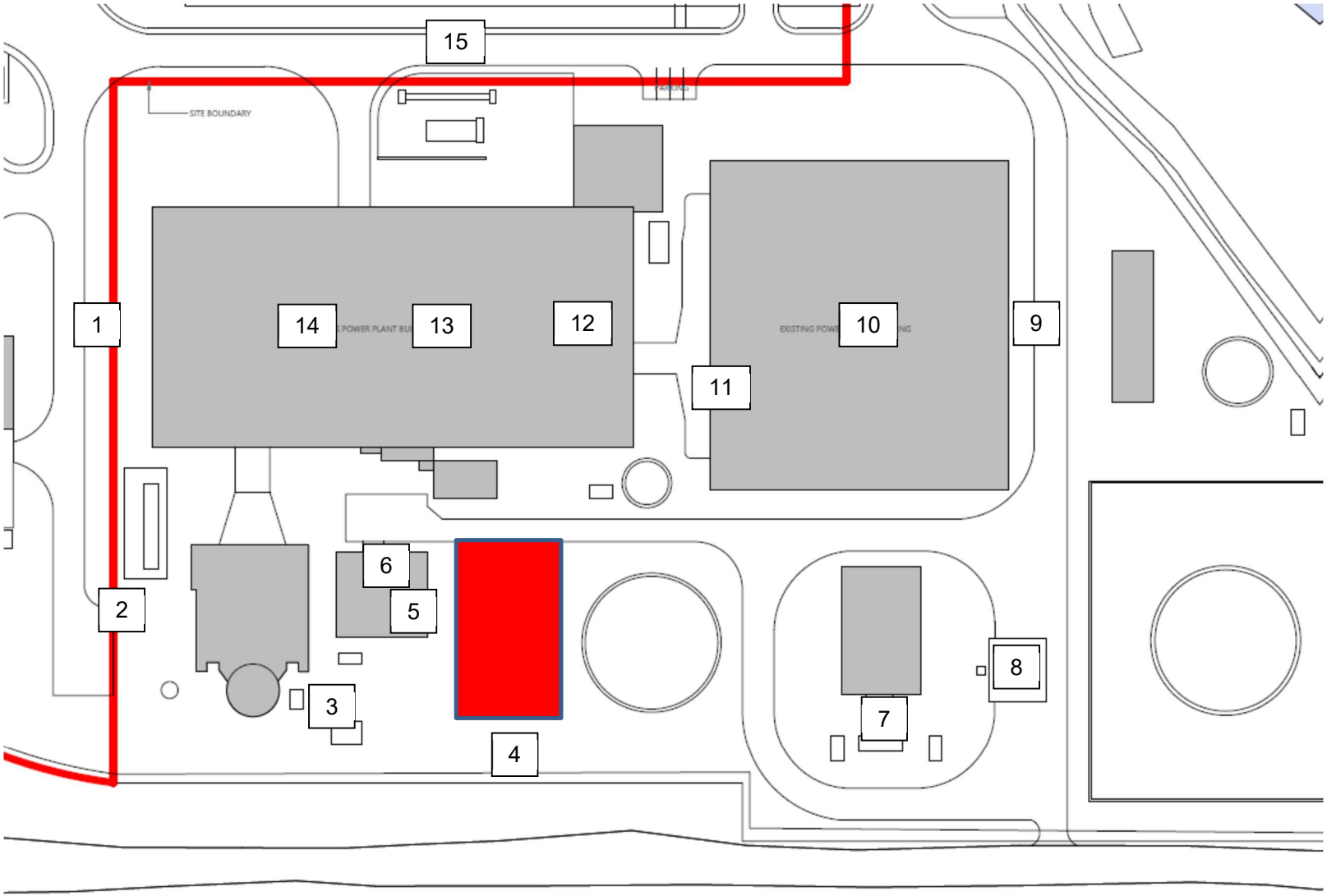
Tynagh Power Station Noise Survey
The noise survey was conducted on 1st and 2nd July 2021. Weather conditions were ideal for noise surveys with dry, warm conditions and very low wind speeds as required under the guidance of BS4142: Methods for rating and assessing industrial and commercial sound (2014).

Power Station Measurement Locations
1: Air Inlet Louvre – 1.5m height at 10m from base of louvre
2: Gas Performance Skid - 1.5m height at circa 3m from plant
3: Side of Main Boiler - 1.5m height at 10m
4: End of Fin Fan Coolers – 1m from end at 1.5m – Coolers circa 5m off ground
5: On Elevated Platform 1m from Edge of Fin Fan Coolers in Centre Level with Fans
6: Internal measurement in centre of Boiler Feed Pump room
7: Waste Water Pumps - 1.5m height at 1m from plant
8: Waste Water Air Blower Pumps (internal)
9: Below end of ACC Cooler Fans (which are located on a platform at least 10m high)
10: Below centre of ACC Cooler Fans (which are located on a platform at least 10m high)
11: Steam Air Ejectors - 1.5m height at circa 5m from plant
12: Internal 7m from Steam Turbine
13: Centre of Turbine Hall on top of raised platform
14: Ground floor in Turbine Hall 12m from Gas Turbine
15: Mains Transformer – 1.5m height at circa 10m from plant

Measurement results are presented below:

Location	Time	Duration	LAeq	LAFmax	LA10	LA50	LA90
1	13:42	(0:0:30.0)	63.4	64.4	63.8	63.3	63
2	13:46	(0:0:30.0)	73.1	74.6	73.6	73	72.5
3	13:50	(0:0:30.0)	69.0	70.3	69.5	69	68.4
4	13:51	(0:0:30.0)	79.2	80.5	79.8	79.2	78.7
5	13:53	(0:0:34.0)	82.2	83.7	82.8	82.2	81.6
6	13:56	(0:0:31.0)	91.1	93.4	92.2	91	90
7	13:59	(0:0:30.0)	79.5	81.1	80.2	79.5	78.6
8	14:00	(0:0:44.0)	76.8	79.7	78.5	77.4	72.8
9	14:03	(0:0:30.0)	72.7	73.5	73	72.7	72.3
10	14:04	(0:0:30.0)	76.8	77.6	77.1	76.8	76.4
11	14:06	(0:0:30.0)	83.1	83.9	83.5	83.1	82.7
12	14:09	(0:0:38.0)	82.5	83.8	83	82.4	81.9
13	14:11	(0:0:30.0)	82.5	83.6	82.9	82.5	82
14	14:13	(0:1:0.0)	82.6	87.3	82.9	82.3	81.9
15	14:16	(0:0:32.0)	73.9	74.6	74.3	74	73.5

Indicative measurement locations presented in Figure Below: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SITE BOUNDARY
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Background Noise Monitoring
A background noise survey was conducted at 4 no. locations in the vicinity of the most proximate properties to the power station boundary during the daytime (07:00 – 19:00), evening (19:00 – 23:00) and night-time (23:00 – 07:00). The locations of the measurements are presented below:

Location 1
Measurement recorded in field opposite house at similar distance from edge of road (19m from road edge). Road noise dominant during daytime and no perceptible noise from the power station reflected in the very low background noise levels.

Location 2
Measurement recorded in field opposite house at similar distance from edge of road (15m from road edge). Road noise and plant noise from industrial site both perceptible during the daytime and night-time. It is noted that during the night-time there was metal clanging perceptible at this location which is likely to be from Sperrin Galvanisers plant.

Location 3
Measurement recorded in field opposite house. During the daytime it was difficult to get a representative measurement due to significant agricultural activity in the vicinity. The house is located up a long lane withn little passing traffic apart from agricultural vehicles. A measurement was recorded on the second morning just before a farmer started work. Plant noise from power station both perceptible during the daytime and night-time.

Location 4
Measurement recorded in field adjacent to house. During the daytime and evening there were a lot of tractors on the road moving silage bales. Plant noise from power station both perceptible during the daytime and night-time in lulls between tractors reflected in the background.

Survey Results

Location	Date	Time	Duration	LAeq	LAFmax	LA10	LA50	LA90
1	1st July 2021	15:01	(1:0:1.0)	54.9	89.4	60.4	40.1	30.7
1	1st July 2021	22:00	(1:0:1.0)	45.3	70.7	40.4	25.4	22.1
1	1st July 2021	23:00	(0:15:0.0)	37.6	62.7	34.5	22.5	21
1	1st July 2021	23:15	(0:15:0.0)	47	70.8	37.6	22.5	21.1
1	1st July 2021	23:30	(0:15:0.0)	30.1	52.9	32.1	22.2	20.8
1	1st July 2021	23:45	(0:15:0.0)	44.8	63.6	45.5	24.4	20.8
2	1st July 2021	14:57	(1:0:0.0)	53.6	83	50.6	40.8	38.5
2	1st July 2021	22:00	(1:0:0.0)	52.5	82.3	44.6	41.0	37.8
2	1st July 2021	23:00	(0:15:0.0)	45.9	70.3	42.3	40.9	40.0
2	1st July 2021	23:15	(0:15:0.0)	52.6	80.9	43.8	41.3	40.1
2	1st July 2021	23:30	(0:15:0.0)	44.9	70.9	41.5	40.6	39.9
2	1st July 2021	23:45	(0:15:0.0)	53	79.6	48.6	41.2	39.8
3	1st July 2021	20:35	(1:0:0.0)	32.7	58.8	34.1	30	27.6
3	2nd July 2021	00:10	(0:15:0.0)	35.7	65.9	31.3	28.6	27.5
3	2nd July 2021	00:25	(0:15:0.0)	26.9	31.7	27.9	26.7	26
3	2nd July 2021	00:40	(0:15:0.0)	29	54	28.3	27.3	26.3
3	2nd July 2021	00:55	(0:15:0.0)	30	35.2	31.8	29.7	27.4
3	2nd July 2021	10:00	(0:26:0.0)	35.2	68.2	30.8	27.3	26
4	1st July 2021	16:35	(1:0:1.0)	51.7	92.9	54.4	37	29.4
4	1st July 2021	17:35	(1:0:1.0)	52.6	91.8	55	38.9	30.1
4	1st July 2021	18:35	(1:0:1.0)	48.8	88.2	47.9	35.1	29.2
4	1st July 2021	19:35	(1:0:1.0)	50	88.4	50.4	32.7	28.2
4	1st July 2021	20:35	(1:0:1.0)	55.2	86.8	33.1	27.9	25.3
4	2nd July 2021	00:37	(0:15:0.0)	27.3	45.5	28.4	26.5	25.2
4	2nd July 2021	00:52	(0:15:0.0)	26.8	50.1	28	26	25
4	2nd July 2021	01:07	(0:15:0.0)	27.9	42.9	30	26.2	25
4	2nd July 2021	01:22	(0:15:0.0)	28.8	49.9	30.8	26.5	25.1