

Noise Monitoring Report

To	NMSG	From	Daniel Ellis, URS
		Date	22/08/2013
Subject	Plymouth EfW CHP facility: A summary of noise measurements to date (22/07/2013)		

Initial 30 minute measurement

Noise levels are measured at each receptor location over an initial 30 minute period. This will give an indication of whether or not the approved maximum 10 hour noise limit (set under Planning Condition 19) might be exceeded, but will not itself definitely prove whether or not the approved maximum 10 hour noise limits have been exceeded.

The monitoring results for the first year of construction are shown in Table 1. Where the LAeq 10hr (facade) exceeds the Maximum Permitted Noise Level (LAeq 10hr) these are highlighted. There have been four recorded instances where this has occurred, all at Savage Road.

Table 1 Construction Noise Levels: Initial 30 Minute Readings

Location	Date	Estimated LAeq 10hr dB (facade)	Maximum Permitted Noise Level (LAeq 10hr dB)	Difference
				(dB)
Talbot Gardens (R15)	21/08/2012	64	70	-6
	22/08/2012	67	70	-3
	29/08/2012	64	70	-6
	30/08/2012	62	70	-8
	05/09/2012	64	70	-6
	21/09/2012	65	70	-5
	28/09/2012	60	70	-10
	10/10/2012	69	70	-1
	24/10/2012	62	70	-8
	08/11/2012	64	70	-6
	28/11/2012	68	70	-2
	12/12/2012	65	70	-5
	03/01/2013	58	70	-12
	09/01/2013	58	70	-12
	16/01/2013	66	70	-4
	24/01/2013	66	70	-4
	30/01/2013	63	70	-7
	06/02/2013	61	70	-9
	20/02/2013	61	70	-9
	06/03/2013	63	70	-7
	20/03/2013	61	70	-9
	03/04/2013	58	70	-12
	18/04/2013	60	70	-10
	24/04/2013	59	70	-11
	01/05/2013	60	70	-10
	15/05/2013	59	70	-11
	30/05/2013	60	70	-10
	13/06/2013	63	70	-7
19/06/2013	64	70	-6	
26/06/2013	62	70	-8	
04/07/2013	60	70	-10	

	16/07/2013	59	70	-11
	24/07/2013	62	70	-8
	08/08/2013	60	70	-10
	22/08/2013	62	70	-8
Savage Road (R3)	13/08/2012	64	65	-1
	14/08/2012	61	65	-4
	21/08/2012	63	66	-3
	22/08/2012	61	66	-5
	29/08/2012	64	66	-2
	30/08/2012	66	66	0
	05/09/2012	64	66	-2
	14/09/2012	62	66	-4
	14/09/2012	64	66	-2
	21/09/2012	64	66	-2
	28/09/2012	67	66	1
	03/10/2012	64	66	-2
	10/10/2012	69	66	3
	24/10/2012	66	66	0
	08/11/2012	68	66	2
	28/11/2012	71	66	5
	12/12/2012	65	66	-1
	03/01/2013	60	66	-6
	09/01/2013	65	66	-1
	16/01/2013	62	66	-4
	16/01/2013	64	66	-2
	24/01/2013	66	66	0
	30/01/2013	63	66	-3
	06/02/2013	59	66	-7
	20/02/2013	63	66	-3
	06/03/2013	63	66	-3
	20/03/2013	62	66	-4
	03/04/2013	61	66	5
	18/04/2013	62	66	-4
	24/04/2013	63	66	-3
	01/05/2013	63	66	-3
	15/05/2013	63	66	-3
	30/05/2013	62	66	-4
	13/06/2013	61	66	-5
19/06/2013	59	66	-7	
26/06/2013	62	66	-4	
04/07/2013	63	66	-3	
16/07/2013	60	66	-6	
24/07/2013	63	66	-3	
25/07/2013	63	66	-3	
08/08/2013	61	66	-5	
22/08/2013	59	66	-7	
HamoazeAve (R22)	14/08/2012	49	57	-8
	21/08/2012	48	57	-9
	22/08/2012	51	57	-6
	29/08/2012	54	57	-3
	30/08/2012	48	57	-9
	05/09/2012	49	57	-8

	21/09/2012	46	57	-11
	24/10/2012	47	57	-10
	09/11/2012	50	57	-7
	28/11/2012	50	57	-7
	12/12/2012	50	57	-7
	03/01/2013	52	57	-5
	09/01/2013	49	57	-8
	16/01/2013	51	57	-6
	24/01/2013	48	57	-9
	30/01/2013	52	57	-5
	06/02/2013	51	57	-6
	20/02/2013	49	57	-8
	06/03/2013	48	57	-9
	20/03/2013	48	57	-9
	03/04/2013	48	57	-9
	18/04/2013	47	57	-10
	24/04/2013	49	57	-8
	01/05/2013	48	57	-9
	15/05/2013	51	57	-6
	30/05/2013	51	57	-6
	13/06/2013	50	57	-7
	19/06/2013	47	57	-10
	26/06/2013	54	57	-3
	04/07/2013	49	57	-8
	16/07/2013	46	57	-11
	24/07/2013	53	57	-4
	08/08/2013	44	57	-13
	22/08/2013	47	57	-10
Cardinal Ave	09/11/2012	60	-	-
	24/10/2012	59	-	-
	05/09/2012	57	-	-
	30/08/2012	58	-	-
	09/11/2012	60	-	-
	12/12/2012	62	-	-
	03/01/2013	56	-	-
	09/01/2013	63	-	-
	16/01/2013	60	-	-
	24/01/2013	62	-	-
	20/02/2013	57	-	-
	06/03/2013	57	-	-
	20/03/2013	54	-	-
	03/04/2013	55	-	-
	24/04/2013	58	-	-
	01/05/2013	59	-	-
	15/05/2013	54	-	-
	30/05/2013	53	-	-
	19/06/2013	53	-	-
	26/06/2013	57	-	-
04/07/2013	55	-	-	
	16/07/2013	53	-	-
	25/07/2013	56	-	-
	08/08/2013	58	-	-

	22/08/2013	57	-	-
Talbot Gardens (R17)	13/08/2012	67	70	-3
	14/08/2012	67	70	-3
	22/08/2012	64	70	-6
Wolseley Road (R20)	14/08/2012	50	60	-10
	21/08/2012	57	60	-3
	22/08/2012	57	60	-3
	29/08/2012	55	60	-5
	30/08/2012	56	60	-4
	05/09/2012	56	60	-4
	21/09/2012	56	60	-4

2 Hour Measurement

Where the 30 minute measured noise level indicates a possible exceedance of the approved 10 hour limit (LAeq 10hr) a further 2 hours of measurements are undertaken (LAeq 2hr). It is agreed that this measurement shall be sufficient to ascertain if the 10 hour working day limit would be exceeded or not. The 2 hour monitoring results are shown in Table 2.

If at this point, based on the 2 hours of measurements, the approved limits over the 10 hour working day are not exceeded, no further action shall be taken. However, if at this point, the 2 hours measurement exceeds the approved limits over the 10 hour working day, a breach of the limit has been recorded.

Table 2 shows that there have been three breaches in Maximum Permitted Noise Level (LAeq 10hr) after 2 hours of monitoring and one measurement which after 2 hours monitoring was shown not to be a breach.

Table 2 Construction Noise Levels: Two Hour Readings

Location	Date	LAeq, 30min (dB)	LAeq, 2hrs (dB)	Maximum Permitted Noise Level (LAeq 10hr dB)	Breach
Savage Road (R3)	28/09/2012	67	69	66	✓
Savage Road (R3)	10/10/2012	69	71	66	✓
Savage Road (R3)	08/11/2012	68	66	66	×
Savage Road (R3)	28/11/2012	71	67	66	✓

Noise Monitoring from 16th July 2013

Since the last NMSG meeting noise monitoring has been carried out on:

- 16th July (the day of the last meeting);
- 24th and 25th July (to take into account bridge deck removal);
- 8th August; and
- 22nd August.

As a request from PPS, noise monitoring has been undertaken in the afternoon (24th July), as well as partly the opposite way around to normal (8th August), in order to ensure noise levels being recorded are representative of levels throughout the day.

The only noticeable difference in results was a higher noise level recorded at Hamoaze Ave on 24th July (16:00), due to increased road noise. All other receptors recorded noise levels within the current usual limits.

Noise levels varied between:

- Savage Road: 59-63 dB
- Talbot Gardens: 59-62 dB
- Hamoaze Ave: 44-53 dB
- Cardinal Ave: 53-58 dB

Bridge Deck Removal (from email to PPS)

Wednesday 24th July

On Wednesday 24th July, Jurgen called me to inform me that breaking out was to commence in the afternoon. By the time I got onto site this was no longer happening, as it only occurred for approx. 1 hour (~13:30-14:20). I monitored at three locations still:

- Savage Road (started 14:21) – 63 dB
- Talbot Gardens (15:16) - 62 dB
- Hamoaze Ave (15:58) – 53 dB

I re-arranged with Kier and MVV, to be there on Thursday morning instead, as breaking out would re-commence then.

Thursday 25th July

Breaking out occurred for about an hour on Thursday (08:35-09:30).

- Savage Road (started 08:02, stopped 09:07) – 63 dB
 - For the first 35 mins only clearing rubble occurred – 60.3 dB
 - For the next 30 mins breaking out was occurring and a value of 63 dB was recorded over the whole 65 minutes of monitoring undertaken at Savage Road.
- Cardinal Ave (11:47) – 56 dB - Clearing rubble only, as breaking out only occurred at the beginning of the day
- *Observations:* I could not even tell the breaking out was occurring. There was no noise from this activity which was noticeable at this receptor.

Noise barriers were being used during these operations as shown at the last NMSG meeting.