

## Noise Assessment –Wyndeham heron, Heybridge, Maldon Noise Survey 2013

Noise assess limited have undertaken a noise survey on the 10<sup>th</sup> January 2013. I met with Rachard Housley prior to him taking the measurements. I understand that his brief was to undertake noise measurement from emissions from the operation process which is operating under an environmental permit.

There was no planned shutdown of machinery on the site as such background levels were not taken.

In the absence of current background readings the author has presented the measurements as a comparison against the absolute boundary noise limits from part 1 of the horizontal guidance note IPPC H3 (Page 7) for noise from an authorised process. These limits (usually applied at the sensitive receptor) are levels which the noise rating level should not exceed and cover daytime averages, Night time averages and night time maximum levels as follows

Daytime	- 50	dBL <sub>Ar, Tr</sub>
Nighttime	- 45	dB <sub>LAr, Tr</sub>
	- 60	dBL <sub>Amax</sub>

The permit conditions set limits for a Noise Rating Level to not exceed +10 over background noise levels at agreed locations identified in the site noise management plan, These agreed locations did not include Navigation Cottages or the Maltings on the western side of the site.

The most recent background noise survey was undertaken by Envirovcare In February 2011 and did not include readings from near to Navigation Cottages or the Maltings (Springfield cottages is further away from the Colchester Road).

I Agreed 6 Monitoring Locations with Richard Housley, 2 of these locations were not previously used (A & B), 2 locations were in comparative locations from previous locations (D & E). Location C is a daytime receptor but was used as reference point for comparison with noise from Location F. Location F is representative of noise affecting Hilary Close and adjacent roads. The locations are as follows

Location A, The Malting's

Location B, Navigation Cottages

Location C Hospice Car Park (Daytime receptor & Reference Location)

Location D, Boulton Cottages

Location E, The Roothings

Location F, Playing Fields Adj Stock Chase (Representative of Hilary Close)

### Noise Assess Survey Results 2013

The Noise Survey 2013 has found that there is a Tonal characteristic to the noise emitted from site and the appropriate +5dB penalty has been applied to the Noise Rating Level. 3 distinctive tones were identified by the 1/3 Octave measurements at 100, 200 and 315Hz. It is likely that these frequencies were the tones that I observed on the 10<sup>th</sup> January 2013.

I have not reproduce the results which can viewed in the Noise Assess report.

The Survey has found that following Locations exceeded the absolute noise limits recommended as a starting guide point from Part 1 of the Horizontal Guidance as follows (Location C will not be used for night time enforcement)

#### Daytime Leq (50 dBA)

Location A, The Malting's	- <b>+5.8 dB</b> (Including Tonal penalty)
Location B, Navigation Cottages	- <b>+14.7 dB</b> (Including Tonal penalty)
Location D, Boulton Cottages	- <b>+11.4 dB</b> (Including Tonal penalty)
Location E, The Roothings	- <b>+3.3 dB</b> (Including Tonal penalty)

#### Nighttime Leq (45 dBA)

Location A, The Malting's	- <b>+4.6 dB</b> (Including Tonal penalty)
Location B, Navigation Cottages	- <b>+21.4 dB</b> (Including Tonal penalty)
Location D, Boulton Cottages	- <b>+9.8 dB</b> (Including Tonal penalty)

#### Nighttime Lmax (60 dBA)

Location B, Navigation Cottages	- <b>+2.4 dB</b>
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It is noted in Section 3.8 of the report that noise from traffic may have had influence on noise levels but may not be fully responsible. The 2011 backgrounds levels were significantly lower than the levels recorded during the January 2013 noise survey. In the absence of further detailed information the reported levels will be treated as the noise rating from Wyndeham Heron

### Compliance with Conditions

- Condition 2.8.2 requires that Noise emitted shall not contain any Tonal or distinctive element. Tonal noise elements have been observed and measured. No further assessment has been made on tonal noise emissions as per paragraph (a), (b) & (c) of this condition
- Using the 2011 background noise levels in the absence of further data Condition 2.8.12 requiring that the noise rating does not exceed 10 above background noise level ( $L_{A90,T}$ ) is not being met at the following Locations;

Day time (Noise Rating should not exceed 51)

Location A, The Malting's	- +5 dB (Including Tonal penalty)
Location B, Navigation Cottages	- +14 dB (Including Tonal penalty)
Location D, Boulton Cottages	- +10 dB (Including Tonal penalty)
Location E, The Roothings	- +2 dB (Including Tonal penalty)

Night time (Noise ratings should not exceed 43)\*

Location A, The Malting's	- +3 dB (Including Tonal penalty)
Location B, Navigation Cottages	- +20 dB (Including Tonal penalty)
Location D, Boulton Cottages	- +11 dB (Including Tonal penalty)

\*Façade adjustment from the survey not included

No further assessment has been carried out as per paragraph (a), (b) & (c) of this condition

**Further Actions**

1. The locations for monitoring and the map in the noise assess report showing these locations should be incorporated into the Site Noise Management Plan as the agreed locations for monitoring noise rating levels.

These locations reflect the nearest sensitive receptors and likely receptors. This will include the new location B at navigation cottages which poses the problem of incorporating an existing receptor in very close proximity that MDC were not previously aware existed.

2. The operator shall undertake or commission an assessment to identify the source of the Tonal noise elements as required by paragraphs (a), (b) and (c) of Condition 2.8.2. (The tonal element may be partially due to 2 exhausts exiting a brick plant room on the western elevation of the building, but given that 3 tonal frequencies have been identified there may also be other contributing plant or processes)
3. Due to the Noise rating level exceeding limits set under condition 2.8.12, the operator shall undertake or commission a detailed noise assessment as required by paragraphs (a), (b) and (c). This may involve a partial or complete shutdown of the site and any methodology should be agreed with MDC
4. A background noise survey should be undertaken involving a full shut down of the operation. I understand that the only scheduled shut down in the next 12 months are for Christmas day 2013 and new years day 2014. Both days will be quieter in terms of background noise than a

normal working day, however retail premises are now open new years day and although potentially not as busy as a Sunday or other bank holiday, this time will most closely represent a Sunday or bank holiday background noise level.

5. Activities involving skips adjacent to Navigation cottages should be considered and alternatives options and working practices investigated and trialled to reduce the intrusiveness of impact noises at the cottages
6. MDC should consider the suitability of the existing conditions. As the process operates 24 hours/day 363 days per year and only has maintenance shut downs every 4 years it is not possible to obtain up to date representative background readings and comparison of Noise Ratings against old backgrounds may be questioned if used for enforcement purposes.

Compliance with recommended action 3 above should determine whether BAT is being employed.

Adoption of an updated, appropriate and enforceable condition 2.8.12 should be given. Consideration should be given to an Absolute noise limit in consideration of the Backgrounds, Noise assessments, complaints received and the Horizontal Guidance H3.

7. If the operation is unable to meet the limits set but is using BAT any attempts at enforcement under EPR is not likely to be successful

**Chris Cornish**  
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