

Environmental Health Officer Comments – 22nd March 2016

I do not consider the matters raised in the Cass Allen report to be of sufficient magnitude to significantly impact on the outcome of the REC report. I concur with the statement in the Cass Allen report:

*‘the underlying procedure set out in the report is reasonable. The correct standards have been adopted and whilst, inevitably, there are several matters of detail where Cass Allen would have done things differently, these are not significant and **would not change the conclusions of the report**’*

Going directly to the ‘Summary’ of the Cass Allen report:

- 1) A new survey of noise sources, witnessed by the council or through video recording
 - We would not ask for this, and do not ask for this as a requirement of submitting a noise assessment
- 2) A new survey of ambient noise levels that incorporated the requirements of BS4142:2014
 - I do not consider the REC report to be so significantly flawed to the degree that a further survey is required
- 3) 3D modelling to accurately account for ground topology and the proposed acoustic screening
 - The applicant might wish to provide this information if a request is made to them. The request would most possibly be considered unreasonable by the applicant as it is not a requirement of BS4142:2014 regime, however helpful its illustrations it might be.

‘Assessment’ section

*‘The correct standards have been adopted and whilst, inevitably, there are several matters of detail where Cass Allen would have done things differently, these are not significant and **would not change the conclusions of the report**’*

- 1) Noise source measurement methodology

First point

This is referring to the difference between the sound energy decay between a point source and a line source – a point source decays at 6dB per doubling of distance from the source, a line source decays at 3dB per doubling of distance. (NB it is widely accepted that a 3dB is the smallest change in ‘loudness’ which is detectable to a person.) Cass Allen have not offered their opinion on what distance a line source will begin to act as a point source.

The suggestion here is that the close up measurement of a point source will cause sound energy to initially decay at a rate akin to a line source due to the proximity of the original measurement. However there is a certain distance (not discussed by REC or Cass Allen) from this “close

measurement of a point source acting as a line source” whereby it will commence to decay at the rate associated with point source, i.e. 6dB per doubling of distance.

Second point

Cass Allen refer to sound power of the shovel drive by in REC table 3.4. Table 3.4 in the REC report does not mention ‘Shovel Drive by’ at all.

REC Table 3.3 does mention ‘Shovel Drive by’ but **sound pressure level** is quoted by REC – **not sound power level** (?)

Further in the second point, Cass Allen are highlighting a difference between reference sound levels in a British Standards Document and measured sound levels produced by REC. I suspect this is done to cast doubt on the measurements presented by REC.

I would suggest that measured levels of activities are generally more beneficial than reference levels taking into account factors such as surrounding environment.

Third point

‘Skips loaded onto flatbed’ is considered by REC, admittedly this would not appear to cover *‘Skips unloaded from flatbed’*

Fourth point

‘Mixer idling whilst being loaded’ I would take to include the noise from the concrete batching plant – the mixer cannot be loaded without the batching plant being operational, but agree that it isn’t made clear in the REC report.

2) Interpretation of BS4142:2014

First point

Cass Allen refers to *‘several **minor** non-compliances with the 2014 standard’* that *‘have potential to change the conclusion’* - I’d suggest that for a factor to have the potential to change the conclusion of the report it would be a major non-compliance as opposed to a minor one(?)

Whilst I concur with Cass Allen re the reporting of weather conditions, the prevailing wind in that location is westerly / south westerly and so noise propagation would be away from the residential development. Reference made to weather conditions would suggest that conditions were appropriate for undertaking measurements albeit not in the exact format given in BS 4142.

The use of the word *‘generally’* by REC as raised by Cass Allen does introduce an element of doubt into the actual wind speeds during the measurements. However BS 4142 does not say that measurements should not be taken, only that the operative should *‘exercise caution when making measurements in poor weather conditions such as wind speeds greater than 5ms’* - I accept that REC have not indicated what caution was exercised in the undertaking of their measurements, but they have not indicated that conditions were unsuitable for measuring.

Although full meteorological details aren't supplied, I wouldn't consider this to impact unfavourably on the REC report conclusions.

Second point

REC have not reported on levels of 'uncertainty', 4142 requires that:

'where the level of uncertainty could affect the conclusion, take reasonably practicable steps to reduce the level of uncertainty. Report the level and potential effects of uncertainty'

REC would be better placed to comment on this, it might be that they are of the opinion that any level of uncertainty present would not affect the conclusion, but they have not stated such so I cannot surmise.

3) Calculation Methodology

3D modelling – as above, whilst this might well be beneficial for providing a visual representation of sound across the site radiating away, it is not something we could demand is supplied as part of the application. A BS4142:2014 assessment does not require the incorporation of 3D modelling.

Ref: AC100329-2r0
Date: 21st March 2016

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By email (planning@mickgeorge.co.uk)

Dear John,

COTTON VALLEY WASTE RECYCLING FACILITY- TECHNICAL NOTE ON CASS ALLEN REVIEW

REC understands that Campbell Park Parish Council have commissioned an independent acoustic consultant to review our Noise Impact Assessment dated 2nd March 2016. It is also understood that a comparison has been made between the former motocross site at Pineham with this report and Campbell Park Parish Council have reiterated their view that the current application if granted would result in a harmful impact on Willen residents.

This Technical Note looks to address the comments made in the Cass Allen review and also to address the concerns with the comparison with the motocross site.

CASS ALLEN REVIEW

Within the review there were three main points of concern which are addressed in turn below.

1. Noise Source Measurement Methodology

Cass Allen have stated that noise measurements have been taken too close to the source, with some measurements taken at 1-2m. The reason for these distances was to prevent any noise interference from other activities/plant items, as measurements were undertaken on a working Site with other plant and operations operating close by. It is worth noting that no corrections for residual noise was applied to these measurements and so are considered worst case.

Noise measurements were taken adjacent to the loudest point of the source and so are considered worst case. Additionally, the source is behaving as point source as, given the distance, the source is a point in relation to the receptors and so 6dB per doubling of distance has been applied on that basis.

With regards the shovel noise, this was measured on Site and is considered representative of a loading shovel to be used on Site. Additionally, the data detailed in the Cass Allen represents a wheeled loader loading dump trucks and accounts for these operations. At Cotton Valley, this process won't be taking place and so is unreasonable to use this data. It is also worth noting that the data in BS5228 was from 2005 and, as such, is eleven years old, compared to the more recent data collected for this assessment. BS5228 states:

“Values of the sound power levels for a particular type and size of machine and the equivalent continuous sound pressure levels for the site activities given in Tables C.1 to C.12 will apply in the majority of cases, but can be lower or higher due to the make and maintenance of the machines, their operation and the procedures adopted when work is carried out.”

Therefore, variations are considered normal, more so when considering the year of the data and the difference in operations the plant is involved in.

With regards operating conditions, this is assumed to be within best practicable means and is to be enforced by the Site manager and the assessment is based on this assumption. It is the responsibility of the Site operator to ensure best practicable means and that all is being done on Site to reduce noise levels. We have reservations on the assumption that the operator would willingly ‘drop empty skips from height’ but again this is the responsibility of the Site operator and has no impact on this report. A Noise Management Plan as part of an Environmental Management Plan would look to address these, whereas our report was a Noise Impact Assessment in support of a planning application.

The concrete batching plant noise was included in the ‘HGV tanker idling whilst being loaded’ as the plant needed to be in operation to load the HGV.

2. Interpretation of BS4142:2014

It is agreed that weather conditions are required to be reported, where appropriate, when undertaking long term measurements. But as stated by Cass Allen, the report was originally undertaken in accordance with BS4142:1997, hence the omission of this data. The weather conditions were noted at the start and end of the survey and the weather was checked regularly to ensure no precipitation or high winds occurred over the duration of the survey. The preceding weather conditions resulted in good conditions for the survey and in accordance with environmental noise surveys.

An assessment of uncertainty is not provided in the report but it can be confirmed that all reasonable steps to reduce the level of uncertainty have been taken. The Table below would have been included in the report.

Table 1: Minimising Uncertainty

Factor	Steps taken to reduce measurement uncertainty
Level of variability in sound emission from the source.	<i>Measurements taken close up to the source, to reduce interference from extraneous noise, and across a long enough period to ensure any variation in noise levels, during operation, are measured.</i>
Level of variability in residual acoustic environment.	<i>Sound measurements have not been corrected for the residual sound level and so are considered worst case.</i>
Level of residual sound in the presence of the specific sound at the measurement location.	
The location selected for taking the sound measurements	<i>Sound measurements were taken at varying distances from the sources depending any interference, safety concerns and access.</i>

Distance between source and measurement location.	<i>As above</i>
Number of measurements taken.	<i>As the majority of the sound sources are relatively continuous, only one sound measurement was taken which is considered reliable and robust.</i>
Measurement time intervals.	<i>Sound measurement was taken over between 1 minute and up to 5-minute periods depending on the sound source.</i>
Range of times when measurements have been taken.	<i>Sound measurements were taken whilst the site was operating. The background sound survey was undertaken over a full weekday and weekend period.</i>
Range of suitable weather conditions during measurements.	<i>Weather conditions during all surveys were compliant with section 6.4 of BS4142:2014.</i>
The measurement method and variability between different practitioners in the way the method is applied. Notes on Background Sound Survey	<i>Sound level measurement have been completed in the most accurate and robust procedure accounting for Site Safety and the accessibility of the areas surrounding the sources. The Background Sound Survey was conducted over a full weekday and weekend period during favourable conditions.</i>

3. Calculation Methodology

The calculations within the assessment are not considered simplistic, rather they are detailed and considered worst case as not all environmental attenuation, such as air absorption, have not been accounted for which would be in a model. Mick George requested that hand calculations are undertaken to ensure a more robust and strenuous account of the operations. Topology has been accounted for in its simplest form and the corrections due to barriers are likely to be higher in a noise model than those applied in the assessment.

Both approaches have their merits and no single approach should be ruled out as being simple and inaccurate. It is worth noting that the Environment Agency have undertaken their own assessment of the Site based on this report and came to the same conclusions resulting in a permit being issued. This adoption of the report and agreement in the outcomes should not be taken lightly.

Former Motocross Site

REC fails to see the benefit or relevance of comparing a motocross Site to a Waste Handling Facility. The fact that different noise levels are prevalent at the Sites is irrelevant and different assessment methodology and guidance relates to the two Sites. The motocross Site is a separate Site and so should not be considered comparable to this Site.

Conclusion

Although there is a difference in opinion and approach to the assessment, BS4142:2014 and noise are both subjective and can result in a difference of opinion between parties. However, the assessment is considered robust and accurate and any difference due to any uncertainty Cass Allen feel should be applied, it is unlikely to result in an exceedance at the receptors given that the rating levels fall comfortably below (-5dB daytime and -13.8dB night-time) the criteria at the closest receptor (Milton Road).

Additionally, given that Milton Keynes Council and the Environment Agency have both accepted the methodology and assessment outcomes, it is considered that the report is robust and accurate in determining that no adverse impact is predicted at the closest residential receptors.

I trust that the above is clear and concise and addresses all the points raised. Please do not hesitate to contact me if you require anything further.

Yours sincerely,

FOR AND ON BEHALF OF REC LTD

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Senior Acoustic Consultant**