

Variation of Condition 10 of Planning Permission 84776 (noise) at Manor Farm Recycling Facility, Pennington, Lymington, Hampshire SO41 8QZ (application number 14/10255) ; and High Quality Recycled Aggregate Washing Facility and Cladding of Recycling Plant at Manor Farm Recycling Facility, Pennington, Lymington SO41 8QZ (application number 13/11273)

Environmental Health Comments in Relation to Noise, Dust and Light

NOISE

Further to the recent and not so recent meetings between stakeholders and acousticians, I would like to present the following comments.

SLR BS4142:2014 Assessment (SLR Ref:422.024790.00001, Version No:1, September 2015) - States at paragraph 2.0 Specification.....' *The site operates between 7am and 6pm Monday to Friday, and 7am, to 1pm Saturdays. The main sources of noise are processing plant housed within a building.*

It is my opinion that the main sources of noise are from plant and equipment operating externally rather than noise from processing plant housed within the buildings.

The following conditions and informative have been proposed to mitigate noise from the development site.

Condition X.

The rating level of noise generated from all operations on the site determined in accordance with BS 4142:2014 shall not exceed 44dB $L_{Ar,1hr}$ measured in the garden of Pennington Manor at GR 431431, 93958 or at the intersection of the driveway to Pennington Manor and the footpath to Milford Road at GR 431493, 93952.

Condition Y.

The operator will arrange for a competent person to undertake a compliance assessment on a twice yearly basis. The assessments will be separated by at least four months. The assessment will be made under downwind conditions. The assessment will follow the BS 4142:2014 methodology insofar as necessary to derive the rating level and to assess compliance with condition X. A report detailing the assessment methodology, the rating rationale and the derived results will be submitted to the Council within two months of the assessment being completed.

Informative.

The second monitoring location has been included to ensure that a compliance point is accessible to all parties at all times and is assumed to be equivalent to the first monitoring location for compliance assessment purposes.'

As discussed, I feel that whilst the compliance point should be at the latter grid reference in a public location (albeit a public footpath on private land) i.e. 'the footpath to Milford Road at GR 431493, 93952', the applicant should have a proxy measurement point closer to the development site (not within the shadow of the bund), whose location is approximately shown at Appendix B in the above BS4142:2014 SLR assessment report. This would allow the compliance point to remain at the closest noise sensitive premise whilst the proxy point would allow the operator to manage the noise emanating from the site with improved

confidence, to ensure that the 'agreed' sound pressure level (L_{Aeq}) does not increase and ultimately contravene the stated Rating Level in breach of the planning condition.

It has been agreed that BS4142:2014 is the appropriate British Standard in relation to assessing the noise from this proposed development/variation of condition.

The proxy point whilst desirable would not be essential to ensure compliance with the noise limit set at the above location. The applicant has mentioned during stakeholder meetings that they would prefer to have an agreement outside of the planning consent.

Paragraph 7.3.5 of BS4142:2014 states: *'Where it is not possible to determine the specific sound level by measurement of the ambient sound level and the residual sound level at the assessment location(s), for example, because the difference between the ambient sound level and the residual sound level is ≤ 3 dB, determine the specific sound level by a combination of measurement and calculation. Report the method of calculation in detail and give the reason for using it.'*

NOTE In some cases, measurements can be supplemented by calculations. Calculations are often more reliable than a single short-term measurement when long-term averages are to be determined and in other cases where it is impossible to carry out measurements because of high residual sound levels. In case of the latter, it is sometimes convenient to carry out the measurements closer to the source and then use a calculation method to estimate the specific sound level at the assessment location(s).'

Therefore, as it is likely that the difference between the ambient sound level and the residual sound level will be approximately ≤ 3 dB, it would seem prudent to have a proxy position to: 1. Assist with the enforcement of the noise condition; and 2. Assist the applicant to comply with the noise condition. However, essentially it would be down to the applicant to ensure they are complying with any conditions and how they comply is down to them. Therefore, it might be prudent to have an informative that mentions a proxy position. In any case, as BS4142:2014 states, as shown above, condition X above, should relate to both a measured and/or a calculated level in accordance with BS4142:2014. The calculation method would have to be stated as mentioned above and the reason given for using it.

BS4142:2014 – 'Method for rating and assessing industrial and commercial sound'.

Principle

The likely impact of the noise from a commercial/industrial operation on residential properties can be assessed by comparing the predicted or measured commercial or industrial noise level with the background noise level (LA_{90}) at the closest noise sensitive premises i.e. representative residential property. BS4142 states that, for commercial or industrial noise with no distinguishable features:

- The louder the commercial/industrial noise is compared to the background noise level, the greater the magnitude of the impact;
- If the commercial/industrial noise [Rating Level] is 10 dB or more higher than the background noise level then this is an indication of a significant adverse impact (i.e. this is not normally acceptable);
- If the commercial/industrial noise [Rating Level] is around 5 dB higher than the background noise level then this is an indication of an adverse impact (i.e. this should be avoided if possible);

- If the commercial/industrial noise [Rating level] is lower than the background noise level, this is an indication of a low impact (i.e. this is normally acceptable). The lower the commercial noise level is, the lower the likely impact.

BS4142 also provides corrections that should be applied to the predicted or measured commercial/industrial noise levels where the commercial/industrial noise contains characteristics that make the noise more intrusive. These characteristics include tonality, impulsivity, and intermittency. The corrections can be significant, meaning that noise containing these characteristics may be severely penalised. The corrections are summarised below.

Commercial/Industrial Noise Characteristic	Perceptibility		
	Just Perceptible	Clearly Perceptible	Highly Perceptible
Tonality	+2dB	+4	+6dB
Impulsivity	+3dB	+6dB	+9dB
Intermittency	-	+3dB	+3dB
Other Sound Characteristics	-	+3dB	+3dB

BS4142:2014 also states that

Noise Definitions

Ambient sound level – This is the totally encompassing sound in a given situation at a given time, usually composed of sound from many sources near and far and includes both background (residual) and specific (source) sound. This is measured as a LAeq and is always referred to over a measurement time interval.

Residual sound level – This is the ambient sound remaining at the assessment location when the specific sound (source) is suppressed to such a degree that it does not contribute to the ambient sound (i.e. it is switched off or when the site not operating). This is measured as a LAeq and is always referred to over a measurement time interval.

Background sound level (LA90) – This is the sound pressure level that is exceeded by the residual sound at the assessment location for 90% of a given time interval i.e. This is a notional level usually calculated within the sound level meter and is the sound pressure level with small peaks taken out i.e. a shout or a bird tweet etc. This is measured as a LA90 over a given measurement time interval.

Specific sound level - This is the sound pressure level produced by the sound source being assessed. It will in effect be the Ambient all encompassing sound level minus the residual sound level. This measured as a LAeq over a given measurement time period.

Rating Level (L_{Ar,Tr}) – This is the specific (source) sound level plus any adjustment for the characteristic features of the sound.

Reference time interval (T_r) – The specified interval over which the specific sound level is determined

Measurement time interval (T_m) – Total time over which measurements are taken.

LAeq - This is the preferred method to describe sound levels that vary over time, resulting in a single decibel value which takes into account the total sound energy over the period of time of interest. This would always be referred to over a measurement time interval.

Addition of decibels – As decibels are logarithmic, the following rule in the table below would apply when adding decibels. i.e. 80dB+80dB = 83dB; 80+81=84; 80+85=86 and 80+90=90.

Difference between the two levels [dBA]	Addition to higher level [dBA]
0	3
1	3
2	2
3	2
4	1
5	1
6	1
7	1
8	1
9	1
10 and over	0

Rationale for the suggested noise limits

There is an agreed background (LA90) sound level of 39dB at the compliance point (GR 431493, 93952); and the proposed compliance limit of 44dB $L_{Ar,1hr}$ is based on the background level plus 5dB, to avoid 'significant adverse impact'.

Based on the current national planning policy framework (NPPF) it is considered that this level would be sufficiently protective of the amenity at the nearest noise sensitive premises and at the meeting Mr Poole indicated that NMSB were basically in agreement with the condition.

It is noted from the conclusions contained in the SLR BS4142:2014 Assessment that the results of their impulsive assessment indicated that the noise from the site would attract a 6dB penalty. It has been agreed during 'noise experts' discussions that a penalty of this order would be appropriate. On that basis the specific noise level (noise generated from the NMSB site) at the compliance point would need to be no greater than 38 dB $L_{Aeq,1hr}$ if there were penalty conditions occurring i.e. impulsive noise.

If taking a measurement for compliance purposes, the penalty to be applied will always be a source of debate at the time of the measurement and down to professional judgement and could make the difference between compliance and a breach. Therefore it might be prudent to use an Absolute Level at the compliance location such as the $L_{Aeq,1hr}$ level, which would be set at 38 dB $L_{Aeq,1hr}$.

PPG24 – Whilst this planning guidance was revoked when the National Planning Policy Framework was introduced, the guidance did have model conditions contained within it that stated both 'Absolute Levels' and 'Rating Levels' in accordance with the BS4142 standard, dated at the time of its publication.

Noise Management Plan

Whilst it might be prudent for the applicant to include continuous monitoring in their Noise Management Plan, essentially it is down to the applicant on how they comply with the noise condition.

If continuous monitoring was to be included in the noise management plan (NMP) it should be drafted with approval from the Waste Planning Authority either prior to the development being approved or within, say, 3 months of the approval. The NMP should include details of:

- the continuous monitoring to be undertaken at the proxy position to enable the ambient sound level to be measured on a 'running basis' to give the $L_{Aeq, 1hr}$ over any given period;
- the trigger level to be set, how it has been derived and how it will be used and the action/investigation to be undertaken if activated;
- how the specific noise level will be determined from this data and how it will be used to demonstrate compliance with the condition at the designated compliance point. To include a caveat that the trigger level will be amended if in practice it is shown that any of the assumptions on which compliance is based (such as the 5dB distance attenuation, 6 dB penalty, residual sound level etc) are found to be inaccurate; and
- how the data is to be made accessible to the regulator

Therefore, it is concluded that the noise condition should include a 38 dB $L_{Aeq, 1hr}$ Absolute Level rather than a Rating Level and also have both a measured and/or calculated compliance level, to allow the use of a proxy point. The calculated methodology should be stated and the reason(s) for using it.

A new condition would also be required if the Noise Management Plan was to include continuous noise monitoring.

MAS Conditions

MAS have proposed the following conditions:

1. *'Noise emitted from the site, the subject of this approval, shall not exceed 38dB LAeq, 1hour during any hour at the locations identified within this condition. This level is to be determined as a free field value (as defined by BS7445 2003), at a publicly accessible boundary (not on private land to which there is no public right of way), of any residential property (use class C1, C2, C3 and C4) existing or with planning permission at the time of this approval that is located within 1km of the site, at an immission height of 1.2 to 1.5m above the ground. A specific location at the intersection of the driveway to Pennington Manor and the footpath of Milford Road at GR 431493, 93952 is considered representative for the dwelling Pennington Manor.'*
2. *'The operator shall undertake a compliance monitoring assessment at least twice within a period of 12 months. The noise monitoring shall be separated by at least 4 months, be made under downwind conditions and otherwise comply with the requirements of BS7445 2003. A report detailing the assessment methodology to assess compliance with condition 1 and the derived results shall be submitted to the Council within 30 days of the monitoring.'*

3.' *The operator shall retain noise monitoring data for a minimum of 12 months following the date of noise measurements. The acoustic parameters of LAeq,1hr, LAmax(fast), LA10,1hr and LA90,1hr shall be recorded with details of the sound level meter used for measurements. The operator shall make the records available to the local planning authority in writing or electronically as soon as practicable but within 14 days of a written request from the local planning authority.'*

It is my understanding that conditions should only be imposed where they are necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable in all other respects.

Condition 1. The principle of MAS proposed condition 1 of with having an absolute LAeq level rather than a Rating Level is agreed, as this removes the subjective ambiguity. The methodology of BS4142:2014 would suffice rather than using BS7445-1:2003. BS4142:2014 does state a height of measurement and therefore this does not need to be reflected in the condition. It would be impracticable to state that the noise limit has to be compliant at every residential property within a 1km area. It would be sufficient to state one agreed location and we have that at the public access point (noting it is still private land but with public access rights).

Condition 2. appears satisfactory, apart from I am of the opinion that BS4142:2014 would suffice as a satisfactory standard.

Condition 3 appears satisfactory; however, I am of the opinion that only the LAeq is required and the other parameters are only desirable.

In light of the above, I would therefore propose the following planning conditions:

Condition A

The level of noise emitted from all operations on the site determined in accordance with BS4142:2014 shall not exceed 38dB $L_{Aeq,1hr}$, measured and/or calculated at the intersection of the driveway to Pennington Manor and the footpath to Milford Road at grid reference 431493, 93952. The method shall be stated if calculated and the reason(s) for the method used.

Condition B

The operator shall undertake a compliance monitoring assessment at least twice within a period of 12 months. The measurement compliance point shall be at the intersection of the driveway to Pennington Manor and the footpath to Milford Road at grid reference 431493, 93952. The noise monitoring shall be separated by at least 4 months, be made under downwind conditions and otherwise comply with the requirements of BS4142:2014. A report detailing the assessment methodology to assess compliance with condition A and the derived results shall be submitted to the Council within 30 days of the monitoring.

Condition C – (if continuous noise monitoring is required)

A noise management plan (NMP) shall be submitted for approval by the Mineral/Waste Planning Authority [say within 3 months ?] of the development being approved. The NMP shall contain: i) a proxy measurement location; ii) a Residual LAeq at the proxy location; iii) A

trigger level as a sound pressure level over time period i.e. 5 minutes; iv) All noise measurements shall be undertaken in accordance with the principles of BS4142:2014; v) The approved trigger noise level shall be amended with the approval of the Waste Planning Authority as necessary to ensure compliance with conditions A and B above. The development shall thereafter operate in accordance with the approved Noise Management Plan.

DUST

Paragraph 5.20 of the submitted Planning Statement states: *'A rain gun dust suppression system has recently been installed at the site which is already in operation; this should ensure that road borne dust emissions are eliminated from all sources including those in association with this development.'*

As the dust suppression is possibly different to what was originally granted planning consent, then full details of all of the site's dust suppression should be included.

Prior to development commencing **details of the location, type and extent of all outside stockpiles** of waste and recycled materials shall be submitted to the Waste Planning Authority for approval in writing. The details shall be implemented as approved.

Prior to development commencing details of **dust suppression measures for the entirety of the site** shall be submitted to and approved by the Waste Planning Authority in writing. The approved measures shall be implemented in accordance with the approved details prior to the installation of the washing plant and shall remain in accordance with the approved details for the duration of the development.

LIGHT

Lighting at paragraph 5.22 of the submitted planning statement appears to be satisfactory.

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