

Appendix 15 - Noise Technical Note

**Applicant Statement of Case - Appendices
CROWN/2025/000002 Sevington Inland Border Facility**

Sevington Inland Border Facility, Mersham, Ashford, TN25 6GE

Application Reference No: CROWN/2025/0000002

Technical Note – Noise Statement of Matters

Date: 24 November 2025
Department for Transport (DfT), His Majesty's Revenues & Customs (HMRC) & Department for Environment, Food & Rural Affairs (Defra)

Client Name:

Document Reference: 20980119-WAT-ENV-XX-TN-N-710001_C02_A0

This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Issue	Prepared by	Checked & Approved by
C02_A0	Innes Urbanski Associate Director 	Mark Maclagan Technical Director 

1. Executive Summary

- 1.1. A noise and vibration assessment of current IBF Sevington operations was undertaken by Waterman Infrastructure & Environment Ltd (WIE) in line with current British standards, guidance and good practice without prejudice or bias. The results demonstrate that the noise impact is not 'significant adverse' as defined by BS4142. The Application Site is therefore compliant with the requirements of the National Planning Policy Framework (NPPF) paragraph 198.
- 1.2. A number of comments have been received by interested parties which break down into the following themes; acoustic fence, low frequency noise (LFN), south perimeter road and complaints by residents. This Technical Note provides a response to the 'themes' together with a response to each comment presented in the appendix to this Technical Note. In addition a section on the BS4142 assessment and what constitutes a significant effect, having regard to advice in BS4142, NPPF and planning Practice Guidance is also presented.
- 1.3. In summary, the results of the noise assessment undertaken by Waterman do not indicate that operational noise emissions from IBF are giving rise to significant adverse effects and that current inherent mitigation is suitable.

2. Introduction

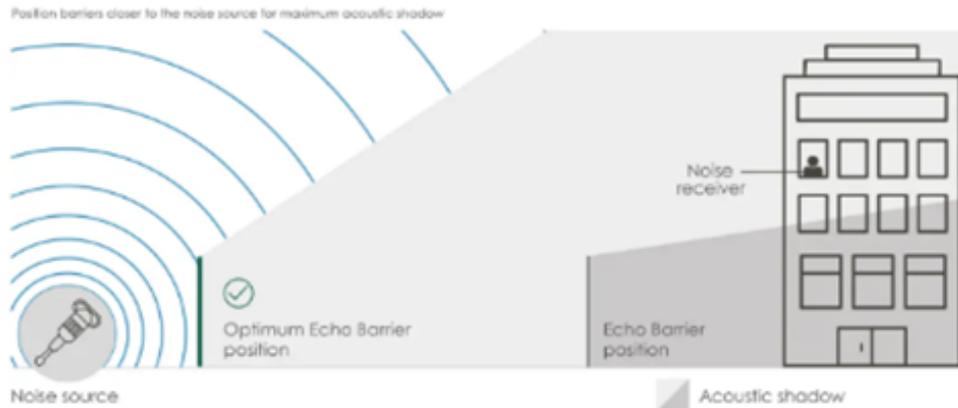
- 2.1. This Technical Note was prepared by Innes Urbanski, an Associate Director at Waterman Infrastructure & Environment Limited (WIE) specialising in acoustics. I have over 20 years of acoustic consultancy experience in building and environmental acoustics. I have a Bachelor of Science degree (BSc (hons)) in Environmental Science from the University of Sheffield and a MSc in Applied Acoustics from the University of Derby. I am a member of the Institute of Acoustics (MIOA). This Technical Note was checked and approved by Mark Maclagan, Technical Director of WIE. Mark is Head of Acoustics at Waterman Infrastructure & Environment Limited with over 17 years of acoustic consultancy experience in buildings and environmental acoustics. Mark has a Bachelor of Science degree (BSc(hons)) in Environmental Science from Nottingham Trent University, Post Graduate Diploma in Acoustics and Noise Control from the University of Salford and is a member of the Institute of Acoustics (MIOA).
- 2.2. This Technical Note provides additional information with respect to comments raised about noise and noise effects referred to in Item 75 of the Statement of Matters (SoM). It also responds to comments from Ashford Borough Council following submission of the application together with comments from Sevington and Finberry Parish Council, The Village Alliance and local residents. A full response to comments made by interested parties is presented as an Appendix to this Technical Note.

3. Acoustic Fence

- 3.1. The existing on-Site acoustic fencing is suitable, based on the results of the EIA presented in Chapter 9. Some minor adverse effects are predicted to arise from IBF operational noise at some locations, but these are considered to be not significant. During the noise source survey, the dominant noise was noted to be the movement of HGVs around the Site. It should be noted that two assessments of IBF operational noise were undertaken, one based on the highest hourly average HGV movements (99 HGVs/hr day, 66 HGV/hr night), and the second based on the maximum hourly HGV movement (219 HGVs/hr day, 162 HGV/hr night (Paragraph 9.63 of the ES). This is a robust approach.
- 3.2. The locations of the acoustic fences are illustrated in the noise contour plots (Figures 9.2, 9.3 and 9.4) as thick black lines. This information was obtained from drawings 419419-MMD-01-DR-0302 Rev P03 and 419419-MMD-01-MO-DR-C-0603 Rev P05 as stated in Paragraph 9.53 of the ES.
- 3.3. The acoustic fences are located adjacent to part of the exit road, namely the south and part west. The acoustic fence is made of timber and is a height of 5 metres. The closer the acoustic fence is to the source the more effective it is at reducing noise. The path difference of the source wave is greatest as is the shadow zone as illustrated in Image 3-1 below.

- 3.4. The acoustic fence therefore provides attenuation to HGV noise on the exit road, which reduces the HGV noise at Church Road receptors.

Image 3-1: Graphic of Effectiveness of Acoustic Barrier Based on Distance From Source



- 3.5. Sevington with Finberry Parish Council have commented that some parts of the site feature no acoustic barriers to residential property.
- 3.6. The noise assessment demonstrates that additional mitigation is not required. Provision of additional acoustic barriers would inevitably provide additional screening to some residential properties that currently do not benefit from this. Examples of this include Court Lodge Farm (R3) and Lagonda Lodge (R1).

Attenuation of Low Frequency Noise

- 3.7. Sevington with Finberry Parish Council contend that the timber acoustic fencing provides very little attenuation at the lower frequencies. It is assumed that this comment is directed at the frequency spectrum of HGVs having a high low frequency content and historic complaints about low frequency noise (LFN). These complaints were investigated by Mott MacDonald and their findings of the LFN not being from IBF Sevington accepted by Ashford Borough Council (ABC). This is dealt within in more detail below. For clarity LFN is noise within the frequency range 25Hz-125Hz, mid frequency is 160Hz-400Hz and high frequency 500Hz-10kHz.
- 3.8. Acoustic barriers provide less attenuation at the lower frequency end of the spectrum due to the longer wavelength, but this is not restricted to timber acoustic fencing. The overall attenuation at the lower frequencies is dependent on the specific properties of the timber acoustic fence such as density (mass) which is key as well as height and length of the barrier. Timber acoustic fences with the correct properties are used widely in both commercial and industrial settings for noise emissions with a greater content of low frequency noise. Based on visual inspection of the timber fence during the on-Site noise

measurements by Waterman, it was considered to have appropriate acoustic properties to attenuate noise from HGV movements on the exit road.

3.9. Further information on LFN is provided in sections 4 and 5.

4. Complaints About IBF Noise

4.1. Waterman consulted ABC's Environmental Protection Team (EPT) prior to the noise assessment to agree the baseline strategy and assessment methodology. The only substantive issue that was raised by EPT was about historic complaint of LFN which had been investigated by Mott MacDonald who concluded that off site events were the source of the LFN at the receptor locations and that the IBF site does not contribute significantly to prevailing LFN at residents on Church Road. ABC subsequently closed the complaint due to the findings of the Mott MacDonald report.

4.2. With regard to the application for the IBF to operate permanently, the following complaints have been raised with regard to IBF noise.

a. Low frequency noise from multiple idling engines and refrigerated trailers

b. Tonal noise from some refrigerated trailers when on electric hook-up

c. Reversing beepers

d. Clanging of curtain-sider poles.

e. Horns As the site is operational 24 hours a day, disturbance can happen at any time of the day or night..

f. Low frequency hum affecting residents on Kingsford Street 24/7.

4.3. The purpose of the EIA was to assess IBF operational noise in accordance with industry standard guidance rather than investigation of complaints *per se*. At the time of the noise assessment Waterman were addressing historic complaints about LFN. Waterman consulted the EPT with regard to the baseline survey and assessment methodology approach, the details of which are presented in Appendix 9.4. The EPT confirmed by email dated 28th October 2024, that LFN emissions from the IBF Site allegedly affecting Orchard Cottage, Church Road and Bridge Cottage, Highfield Lane, were investigated. The email stated that *"No specific source was established, and the noise issue appeared to resolve itself shortly after."* Further to this the email stated, *"We thought however that you might like to be aware of these issues as they may arise as part of any subsequent planning consent."* This indicates that the complaint regarding LFN was closed out – to the satisfaction of ABC's EPT.

4.4. Waterman considered the acoustic spectrum of IBF noise sources as part of the BS4142 assessment and did not consider it necessary to undertake a further specific investigation of the LFN complaint which Mott MacDonald had done previously. ABC's EPT did not

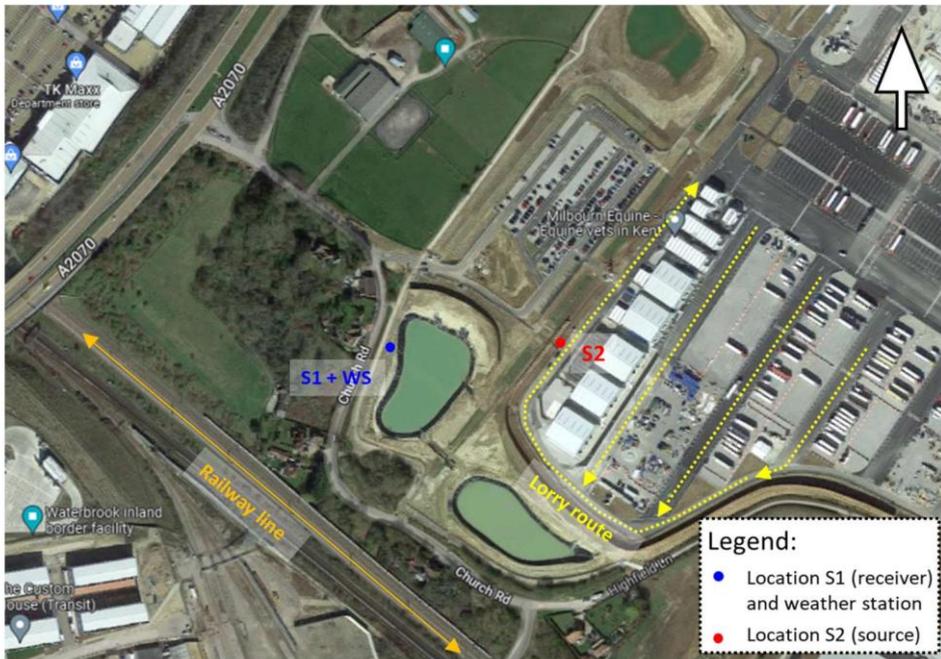
identify that they had received complaints with regard to tonal noise from refrigerated HGVs, reversing beepers, clanging of curtain sider poles and horns.

- 4.5. As the allegations of tonal noise from some refrigerated trailers, when on electric hook-up, the Defra central area electric hook-up is approximately 345m from nearest Church Road residential properties and the HMRC hook up is approximately 375m from the nearest Church Road residential properties. These sources are both represented in the 3D CadnaA noise model and are not predicted to contribute significantly to the overall IBF operational noise level at Church Road residential properties. The dominant source is predicted to be from HGV movements on the internal access road. The distance attenuation to the overall sound power level from the electrical hook-ups at 345m and 375m based on 20 log hemispherical attenuation is approximately 59dB(A). At the lower frequencies the additional attenuation due to atmospheric absorption, ground effect and barrier is less at the low frequency end of the spectrum. Based on this and source noise measurements this is not identified as a potential dominant source at Church Road receptor location.
- 4.6. During the survey where measurements of key noise sources were taken, use of vehicle horns was not observed. If there were noise from this source experienced in the future, it could be dealt with through management of the Site and signage, as could any noise from idling refrigerated vehicles not using hook-ups provided. During the noise source survey clanging of curtain sider poles was not observed and therefore not measured. Again, if noise from this source were to occur, it could be dealt with through management of the Site given that any activity in this respect would be to allow inspection of goods being carried out by the Site operators.

5. Low Frequency Noise

- 5.1. The investigation of LFN was undertaken by Mott MacDonald, the results of which are presented in Technical Note dated 8th June 2022, document reference 419419-MMD-XX-SV-RP-YA-0003 v2. Mott MacDonald thought that LFN may be arising from HGVs traversing on the internal site exit road and the objective of their investigation was to confirm the extent to which this noise source was measurable at the nearby dwellings.
- 5.2. Mott MacDonald undertook simultaneous measurements at the Sevington site boundary and near to the residential receptors to the west of the site at Church Road. The below image (**Image 5-1**) is reproduced from the Technical Note, illustrating the measurement locations.

Image 5-1: Mott MacDonald Noise Monitoring Locations



Source: Mott MacDonald

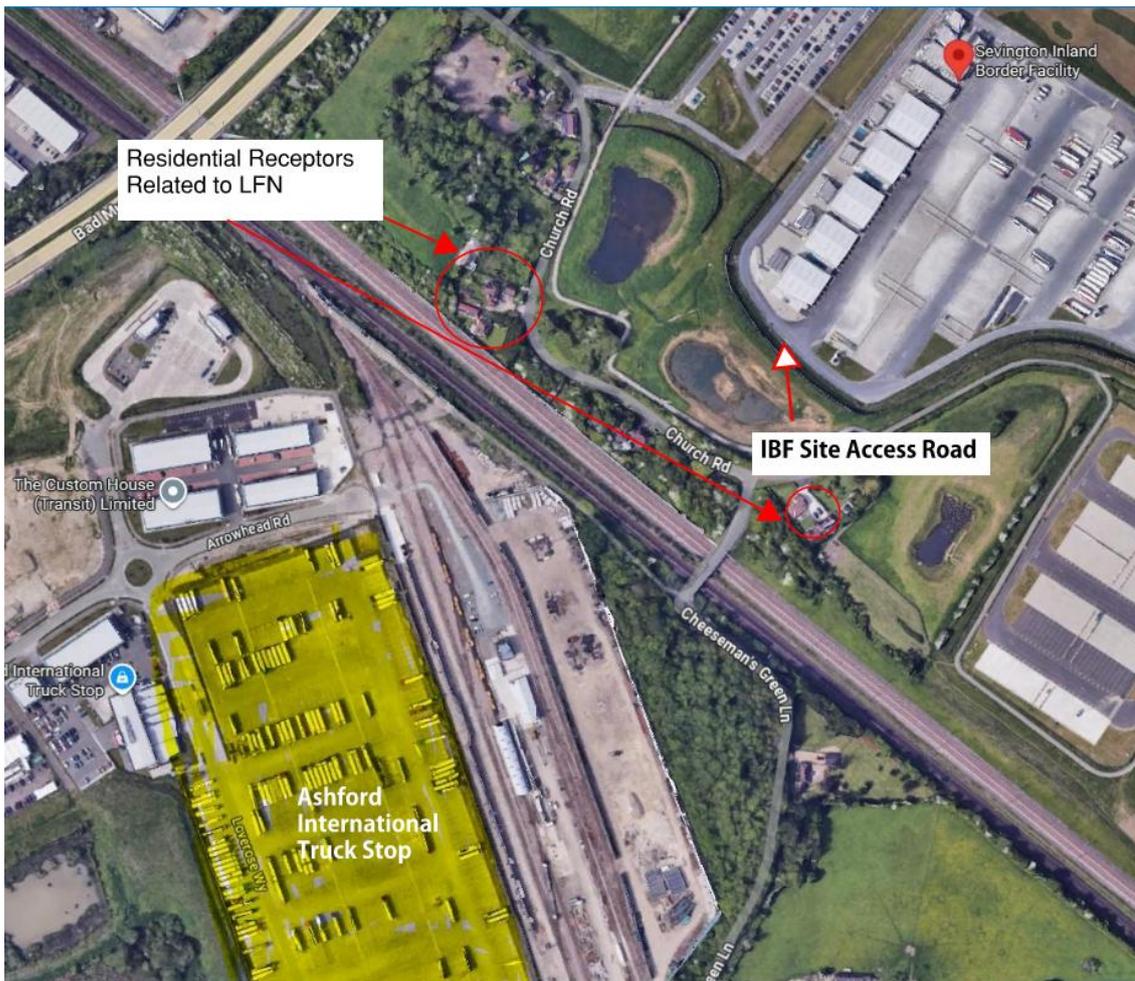
- 5.3. A comparison of noise levels with and without HGVs traversing the site exit road were made. The results illustrated that although ‘high’ levels of LFN were measured outside of the residential receptors (S1) they did not correlate with noise emanating from the IBF site. Of the IBF HGV events (which numbered in the region of 20 to 30 over the evening and nighttime period) only half resulted in a measured level above ambient at receptor location (S1). The Technical Note also reported that “*There are also a similarly large number of offsite events that are not attributed to the site activity over the same time period.*” In summary the results of the investigation indicated that off site events were the source of the LFN at the receptor locations and that the IBF site does not contribute significantly to prevailing LFN at residents on Church Road.
- 5.4. Mott MacDonald’s Technical Note referred to the presence of LFN at 40Hz (1/3 octave centre band frequency). It is noted that the residential properties in question are in close proximity to the high speed railway line H1 (approximately 35m), which are known for their high spectrum content of low and mid frequency noise due to aerodynamic and wheel/rail interaction noise. There is a rail acoustic barrier for residential properties on Church Lane from high speed H1 rail noise, which is understood to be a timber structure 4.5m high¹. In addition to this there are a number of other off-site industrial sources immediately south of the railway lines which could also be potential sources of LFN such as Network Rail Sevington Sidings Works, approximately 90m and Ashford International Truck Stop, approximately 155m. In comparison the IBF site exit road is approximately 155m from the nearest residential property on Church Road, which also has a timber acoustic barrier. It should be noted that noise from Ashford International Truck Stop will have similar sounds

¹ <https://democracy.kent.gov.uk/documents/s73927/Item%20C2%20-%20Waterbrook%20Park.pdf>

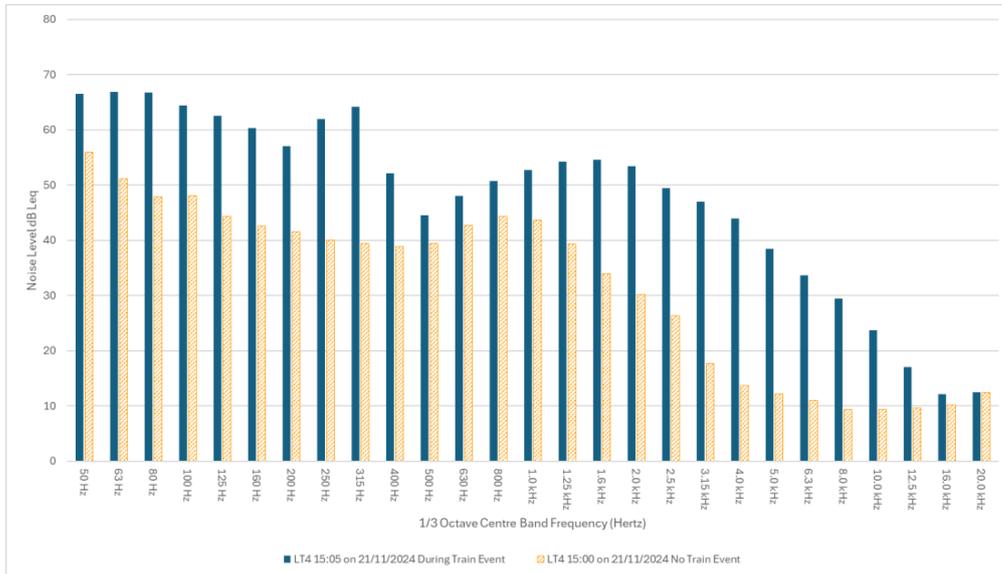
to that from IBF Sevington, both having moving and potentially idling HGVs. Refer to **Image 5-2**.

- 5.5. Spectrum noise measurements undertaken at monitoring location LT4, approximately 45m from the high speed railway line with and without a rail event is presented in **Histogram 5-1**, illustrating the increase in low (25Hz-125Hz) and mid (160Hz-400Hz) frequency content during the rail event. Increase in high frequencies are also observed.

Image 5-2: Other Sources of Low Frequency Noise



Histogram 5-1: 1/3 Octave Noise Measurements at LT4 With & Without Train Event

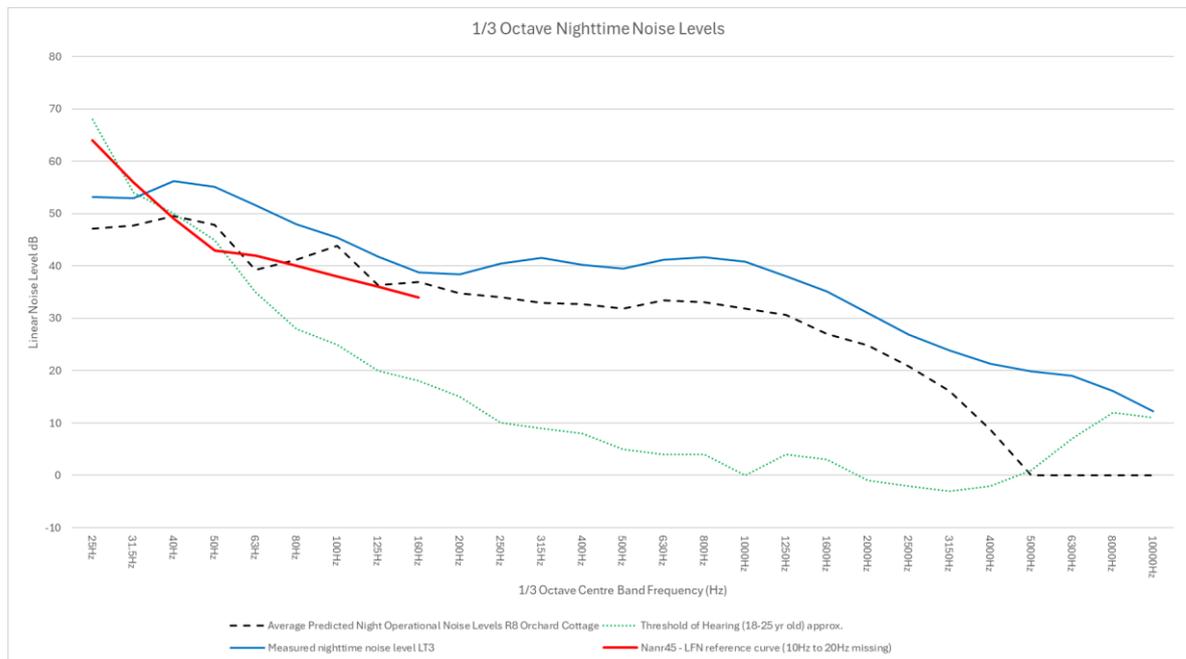


- 5.6. **Histogram 5-2** presents the nighttime predicted IBF operational noise levels at Orchard Cottage (R8 at 4m above ground level) together with the measured nighttime noise level at monitoring location LT3, approximate threshold of hearing and the NANR45² LFN reference curve – although the reference curve is normally with regard to internal noise levels and can be relaxed by 5dB under certain circumstances.
- 5.7. The measured noise levels at LT3 are higher than those predicted at Orchard Cottage. This is expected given LT3 is closer to IBF Sevington sources and includes noise from other ambient sources (road/rail). The predicted 1/3 octave nighttime noise levels externally to Orchard Cottage are predicted to be at the threshold of hearing at 40Hz and just above the threshold of hearing from 50Hz to 63Hz with an increase at 100Hz. When comparison is made against the NANR45 LFN reference curve, which as already stated is with regard to internal and not external noise levels, the predicted external nighttime noise level is at the reference curve at 40Hz, above it at 50Hz and 100Hz and below at 63Hz. When account is taken of attenuation from outside to inside through a slightly open window (Table 5.6 of NANR 116³), it is considered that the predicted internal noise levels from IBF nighttime operational noise would be below the NANR45 LFN reference curve.

² Dr A Moorhouse, Dr D Waddington, Dr M Adams. (February 2005). Defra contract NANR45. Proposed criteria for the assessment of low frequency noise disturbance. University of Salford.

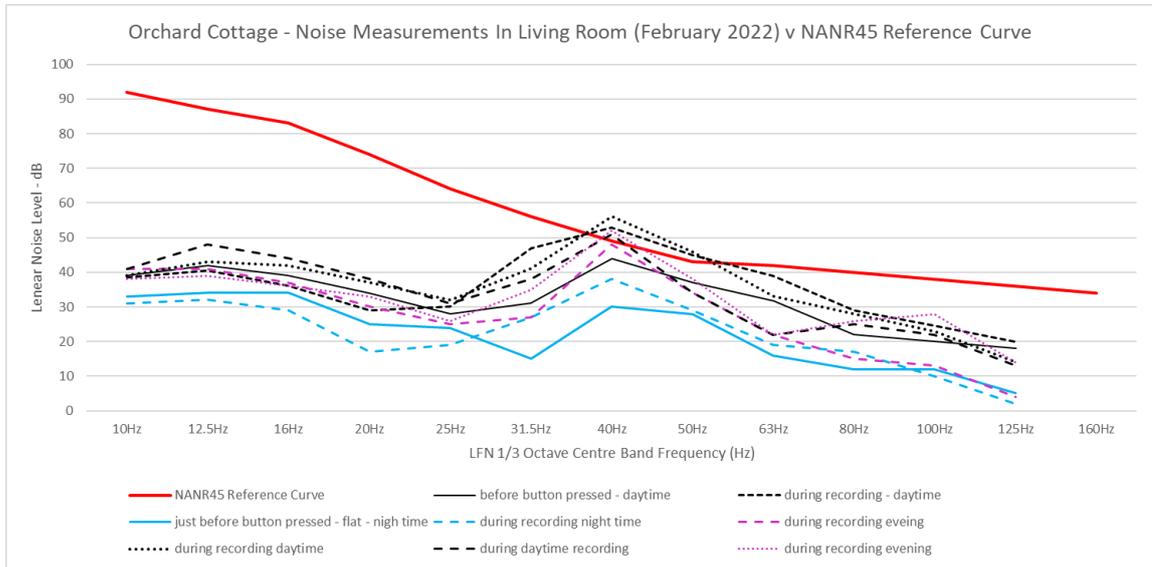
³ Napier University School of The Built Environment. (April 2007). Defra contract NANR 116. Open/Closed Window Research Sound Insulation Through Ventilated Domestic Windows. Napier University.

Histogram 5-2: Nighttime Predicted IBF Noise Levels at Orchard Cottage & Measured Levels At LT3

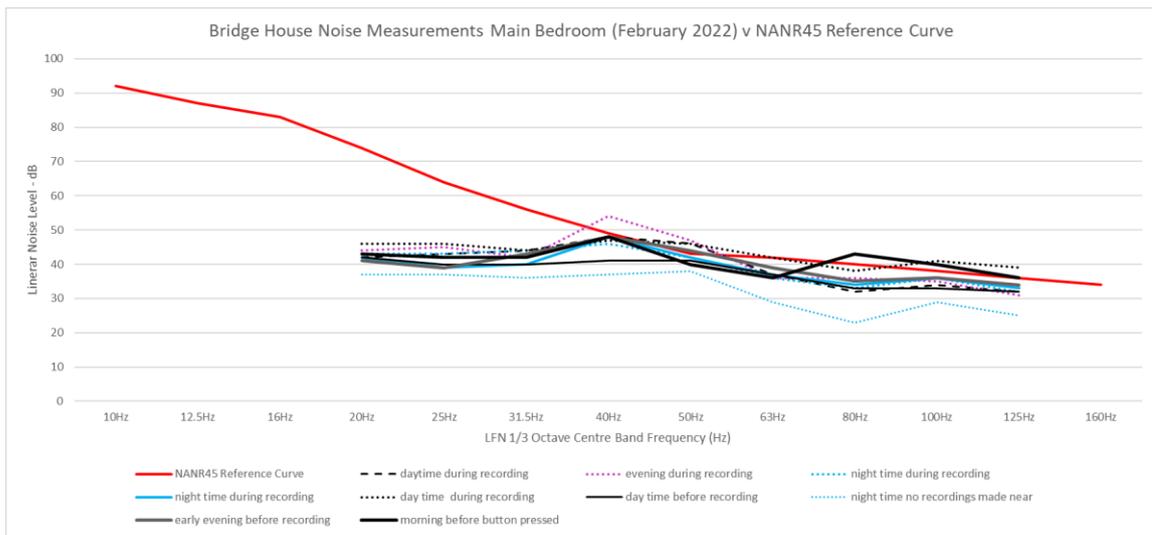


- 5.8. The overall predicted external nighttime noise level of IBF operational noise is 40dB LAeq,15 minutes, which is not considered to be ‘high’ and would result in noise levels of around 30dB LAeq,15 minutes internally through a partially open window, which is at a benchmark level suitable for residential amenity. It is appreciated however that a broadband overall noise level does not necessarily provide an indication of LFN content.
- 5.9. **Histogram 5-3** presents the measured internal noise levels in February 2022 in the living room of Orchard Cottage and **Histogram 5-4** presents the same but in the main bedroom of Bridge House. It is assumed that the noise measurements were conducted by Ashford Borough Council (ABC) as they were sent by email from ABC to Defra dated 17th February 2022, therefore predating Mott MacDonald’s investigation of IBF Sevington LFN. The description of the measurement sets does not state they were undertaken in an unoccupied room and therefore could potentially be contaminated. Also, the noise event measurements may be of a source not associated with IBF Sevington. Both Histograms also include the NANR45 LFN reference curve. Where noise levels exceed the NANR45 LFN reference curve the document states “it may indicate a source of LFN that could cause disturbance.” The assumption is that Mott MacDonald were provided this information which formed part of their investigation.

Histogram 5-3: Orchard Cottage – Internal Noise Levels In Living Room (Feb 2022)



Histogram 5-4: Bridge House – Internal Noise Levels In Main Bedroom (Feb 2022)



5.10. At face value, notwithstanding potential contamination or source not being IBF operational noise, daytime recordings within Orchard Cottage living room illustrate exceedance of the NANR45 LFN reference curve at 40Hz and 50Hz, with slight exceedance during one evening measurement at 40Hz. No exceedance of the NANR45 LFN reference curve is illustrated during the nighttime event measurements. Within Bridge House main bedroom, Histogram 4-5 illustrates exceedance of the NANR45 LFN reference curve at 40Hz during one evening measurement period. Exceedance at 50Hz is also evident during one evening and daytime period with another exceedance at 100Hz. There are no

exceedances during the nighttime period, although at 40Hz it is at the NANR45 LFN reference curve.

6. South Perimeter Road

- 6.1. The EPT of ABC have suggested that the Applicant will need to consider alternative routes out of the Site, particularly during the nighttime period and not to use the south perimeter road.
- 6.2. As already stated, the main source of noise from the IBF Site is from movement of HGVs around the Site as detailed in paragraph 9.37 and 9.62 of the ES. The results of the noise assessment does not indicate there is a requirement for additional mitigation or requirement for an alternative route out of the Site, albeit suspended use of the southern site access road during the nighttime period would result in lower noise levels from HGV movements to receptors on both Church Road and Highfield Lane. The results of the noise assessment does not indicate this is required.

7. BS4142 Assessment of IBF Operational Noise

- 7.1. Key to a BS4142 assessment is the difference between representative background sound level (L_{A90}) and the rating level (sound from IBF use at **receptor** location adjusted for acoustic character in accordance with BS4142). Context, which is an important aspect of BS4142 and often ignored, also needs to be taken into account being an integral part of a BS4142 assessment. Context includes consideration of the overall noise level of the source at the receptor location, the prevailing residual noise level at the receptor location (noise without IBF), inherent mitigation measures on the IBF site, time of day and the character of the neighbourhood.
- 7.2. The greater the level difference between rating level and background the greater the potential for an adverse effect. The magnitude of difference without context is presented as Table 9.4 in the ES. A level difference of $\geq L_{A90} + 10\text{dB}$ is considered to be equivalent to a Significant Observed Adverse Effect Level (SOAEL). This aligns with Section 11 b) of BS4142 which states “*A difference of around +10dB or more is likely to be an indication of a significant adverse impact, depending on context.*” This aligns with the “*Noticeable and disruptive*” example outcomes as presented in Planning Practice Guidance Paragraph: 005 Reference ID: 30-005-20190722 - Noise Exposure Hierarchy Table.
- 7.3. For a rating level of $\leq L_{A90} + 5\text{dB}$, 11 c) of BS4142 states “*A difference of around +5dB is likely to be an indication of an adverse impact, depending on context.*” A level difference of $\leq L_{A90} + 5\text{dB}$ is considered to be at or below the Lowest Observed Adverse Effect Level (LOAEL) and equivalent to “*present and not intrusive*” outcome. By this “*Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.*” It is appreciated that the nearer to the upper limit then there is the potential of the

noise becoming “*present and intrusive*” which is where “*Noise can be heard and causes small changes in behaviour, attitude or other physiological response e.g. turning up volume of television; speaking more loudly;..closing windows for some of the time because of the noise...*” This is where consideration of context may change the final assigned BS4142 impact.

- 7.4. The BS4142 assessment is presented in Chapter 9 of the ES.
- 7.5. During on-site noise measurement of key sources, the dominant noise was noted to be from the movement of HGVs around the Site.
- 7.6. Two assessments of IBF operational noise were undertaken, one based on the highest hourly average HGV movements (99 HGVs/hr day, 66 HGV/hr night); and the second based on the maximum hourly HGV movement (219 HGVs/hr day, 162 HGV/hr night (Paragraph 9.63 of the ES). This was based on data recorded at the IBF between January 2024 and November 2024 provided to Waterman by Sodexo. Full details of the assessment are provided in Technical Appendix 9.5. These were input into the noise model as moving point sources at 10 mph. The noise model also included Transport Refrigerated Vehicles hooked up, area sources for both swim lanes and IBF area, together with noise from scissor lift near Shed 5 area. The noise model also included the 5m high acoustic fences that forms part of IBF’s mitigation.
- 7.7. The level difference of the predicted IBF operational noise at receptor location, adjusted for acoustic character (rating level), was compared to the derived background sound level to determine the magnitude.
- 7.8. Table 9.12 of the ES presents the noise assessment results for the daytime period based on highest average HGV movements. All of the IBF rating levels are predicted to be below the daytime background sound level, with many predicted to be ≥ 10 dB below background sound level. BS4142 11 d) states “*Where the rating level does not exceed the background sound level, this is an indication of the specific source having a low impact, depending on context.*” Further to this all the predicted change in ambient noise level is ‘negligible’, with the highest predicted increase being +0.3dB. This is a positive indication that under these operating conditions the IBF is not giving rise to ‘significant adverse’ effects as none are predicted to exceed the SOAEL at receptor locations.
- 7.9. Table 9.13 of the ES presents the noise assessment results for the nighttime period based on highest average HGV movements. At most receptors the rating level is above background but less than 5dB above background with negligible change predicted in the ambient noise level. This indicates that IBF operational noise at these receptors is predicted to be below the LOAEL and when context is taken into account the effect is considered to be ‘not significant’.
- 7.10. At one receptor the predicted level difference is above the LOAEL, being +5.7 (R13 – 17 Nightingale Close). When context is taken into account, the predicted specific sound level

is 37dB LAeq,15 min compared to a baseline 2022 ambient noise level of 52dB LAeq,8h. The potential effect at this receptor is considered to be negligible as reported in the ES (Paragraph 9.72 of ES).

- 7.11. As stated above, noise assessment was also undertaken based on the maximum hourly HGV movements. Table 9.14 of the ES presents the results for the daytime period. All of the IBF rating levels are predicted to be below the daytime background sound level, with many predicted to be ≥ 10 dB below background sound level. The predicted change in ambient noise level is negligible at all receptors, with the highest predicted change being +0.4dB. This is a positive indication that under these operating conditions the IBF is not giving rise to 'significant adverse' effects and none are predicted to exceed the SOAEL at receptor locations.
- 7.12. Table 9.15 of the ES presents the results for the nighttime period based on maximum hourly HGV movements. It should be noted that based on recorded data by IBF operators provided by Sodexo, this occurs between 06:00-07:00. Under these conditions some of the sensitive receptors are predicted to have a BS4142 level difference above +5dB and therefore above the LOAEL. The highest BS4142 level difference is +6.7 at Court Lodge Farm (R3). When account is taken of context, all except Sunny Bank (R5) and Bridge Cottage (R10) are predicted to have a change in ambient noise level of less than 1dB, so negligible, with many of the predicted IBF specific sound levels being significantly below the 2022 derived ambient noise levels. At Court Lodge Farm (R3) the predicted IBF specific sound level is 44dB LAeq,T compared to a derived 2022 baseline level of 58dB LAeq,8h. At this location it is likely that the prevailing noise level masks that of IBF noise and on balance it is considered not to be exposed to a significant adverse effect.
- 7.13. With regard to Sunny Bank (R5), the predicted IBF specific sound level is 45dB LAeq,T which is not considered to be excessive against the derived 2022 baseline level of 50dB LAeq,8h. Furthermore, it must be recognised that the residents would be indoors during the nighttime period and therefore benefit from attenuation afforded by the building itself. At Bridge Cottage (R10) the predicted IBF specific sound level is 46.5dB LAeq,T which is not considered to be excessive against a derived 2022 baseline level of 51dB LAeq,8h and again that residents would be indoors. I considered the likely effect is intermittent minor adverse at these two locations. The predicted noise levels at both receptors fall below the SOAEL based on the BS4142 results. On this basis secondary or enhanced mitigation has not been proposed.

8. Summary

- 8.1. Waterman's noise assessment has been undertaken in line with current British standards, guidance and good practice without prejudice or bias. The results indicate negligible to minor adverse effects from IBF operational noise and not at a level that would be regarded as significant.

- 8.2. In summary, the results of the noise assessment undertaken by Waterman indicate that operational noise emissions from IBF will not give rise to significant adverse effects and that current inherent mitigation is adequate.
- 8.3. The provision of secondary or enhanced mitigation could provide further reductions in noise emissions but are not considered necessary. The environmental benefit of these in terms of overall noise reduction and its perceptible change would have to be assessed.



APPENDIX

A. Response to Noise Comments

9. Introduction

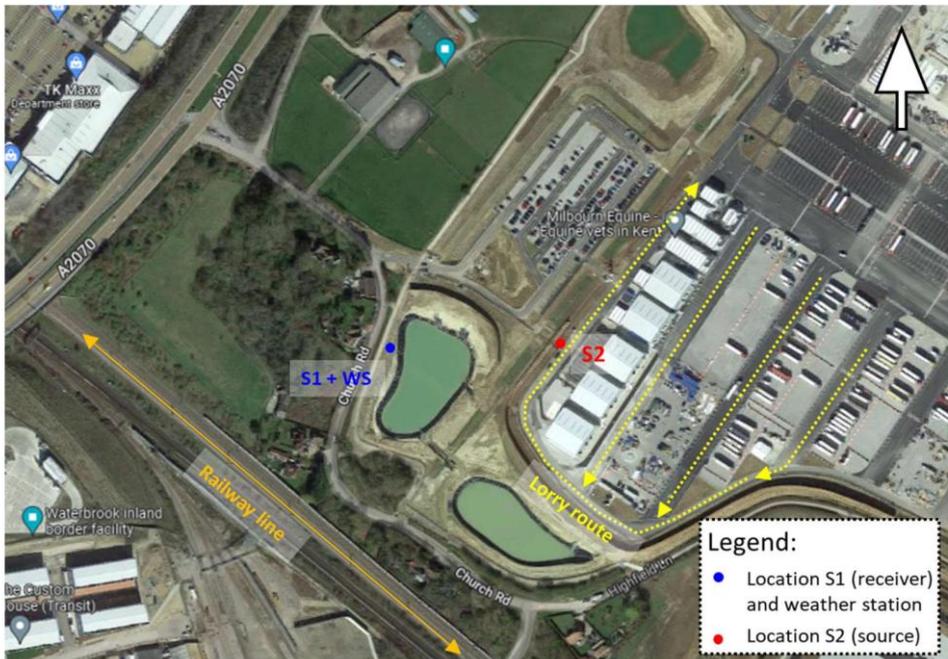
- 9.1. A noise and vibration assessment was undertaken by Waterman of current operations at the Sevington Inland Border Facility, Ashford, in support of a full planning application for its retention. The details of this were presented in Chapter 9 of the Environmental Statement and associated Technical Appendices.
- 9.2. No comments were made with regard to operational vibration, which is expected given there are no IBF operations that would give rise to significant levels of vibration at receptor locations. This is stated in paragraph 9.3 of Chapter 9 of the Environmental Statement.
- 9.3. This Appendix provides a response to comments made on the Noise & Vibration assessment information submitted as part of the planning application. The comments received are summarised in **bold black** text with Waterman's response in *blue italic text*.

Environmental Protection Team (EPT) Ashford Borough Council

- 9.4. **The EPT request the following is investigated and addressed as part of the consultation process:**

EPT Comment 1

- 9.5. **The concerns raised by the resident [REDACTED] and conduct additional investigation to the reported low frequency noise from HGVs, tonal noise from refrigerated HGV's, reversing beepers, clanging of curtain sider poles and horns in their analysis of the recorded data in their response.**
- 9.6. *As detailed in Appendix 9.4: Consultation, EPT confirmed by email dated 28th October 2024 that Low Frequency Noise (LFN) emissions from the IBF Site allegedly affecting Orchard Cottage, Church Road and Bridge Cottage, Highfield Lane, were investigated. The email stated that "No specific source was established, and the noise issue appeared to resolve itself shortly after." For clarity LFN is noise within the frequency range 25Hz-125Hz, mid frequency is 160Hz-400Hz and high frequency 500Hz-10kHz.*
- 9.7. *The investigation of LFN was undertaken by Mott MacDonald, the results of which are presented in Technical Note dated 8th June 2022, document reference 419419-MMD-XX-SV-RP-YA-0003 v2. Mott MacDonald thought that LFN may be arising from HGVs traversing on the internal site exit road and the objective of their investigation was to confirm the extent to which this noise source was measurable at the nearby dwellings.*
- 9.8. *Mott MacDonald undertook simultaneous measurements at the Sevington site boundary and near to the residential receptors to the west of the site at Church Road. The below image is reproduced from the Technical Note, illustrating the measurement locations.*



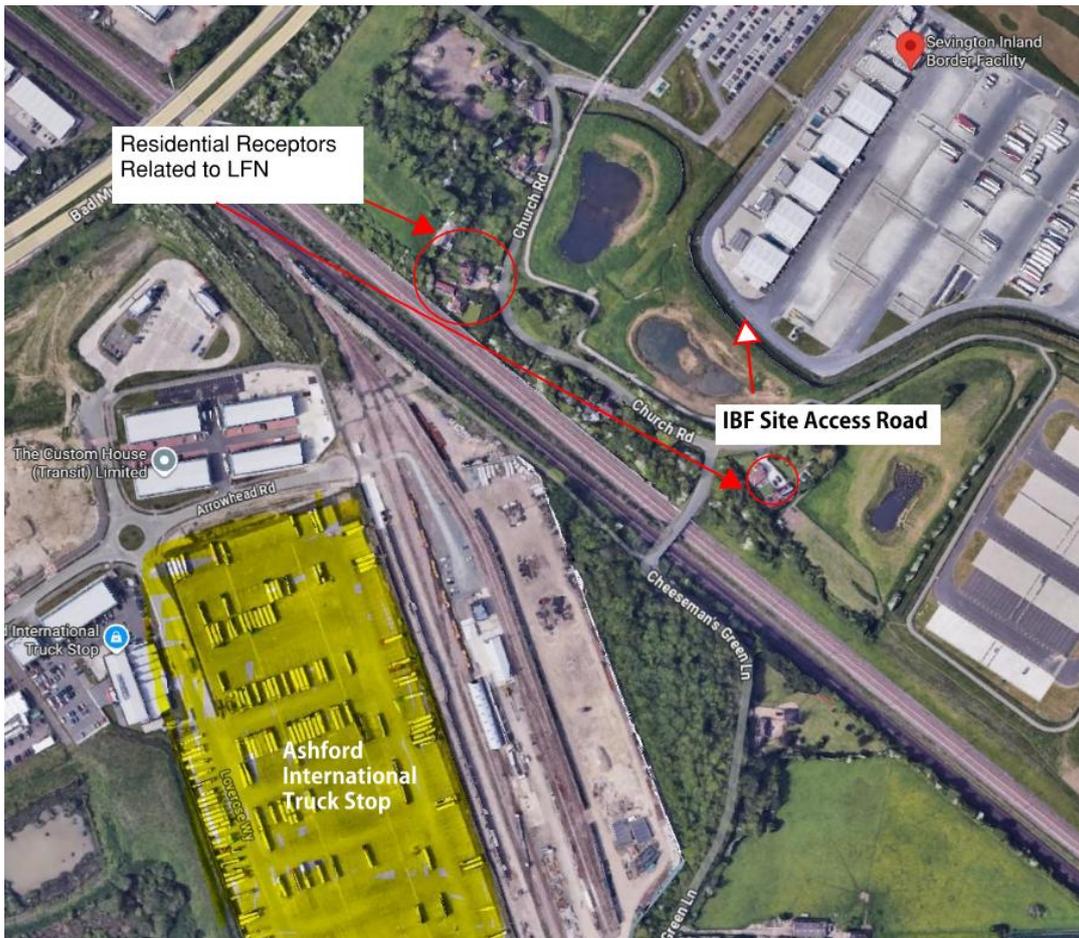
Source: Mott MacDonald

- 9.9. *A comparison of noise levels with and without HGVs traversing the site exit road were made. The results illustrated that although ‘high’ levels of LFN were measured outside of the residential receptors (S1) they did not correlate with noise emanating from the IBF site. Of the IBF HGV events (which numbered in the region of 20 to 30 over the evening and nighttime period) only half resulted in a measured level above ambient at receptor location (S1). The Technical Note also reported that “There are also a similarly large number of offsite events that are not attributed to the site activity over the same time period.” In summary the results of the investigation indicated that off site events were the source of the LFN at the receptor locations and that the IBF site does not contribute significantly to prevailing LFN at residents on Church Road.*
- 9.10. *Waterman understands from email communication dated 13th July 2022 that EPT were satisfied with the findings of Mott MacDonald’s Technical Note and closed the investigation as had no further complaints or log sheets from the neighbouring residents.*
- 9.11. *When Waterman contacted EPT of Ashford Borough Council to agree in principle the baseline approach and assessment methodology of IBF operational noise (October 2024), it was understood that no further complaints had been received following the LFN investigation in 2022 and that EPT of Ashford Borough Council were satisfied with the results of the investigation by Mott MacDonald and that the LFN source wasn’t from the IBF site.*
- 9.12. *Mott MacDonald’s Technical Note stated the presence of LFN at 40Hz (1/3 octave centre band frequency). It is noted that the residential properties in question are in close*

proximity to the high speed railway line H1 (approximately 35m), which are known for their high spectrum content of low and mid frequency noise due to aerodynamic and wheel/rail interaction noise. It is appreciated that there is a rail acoustic barrier to protect residential properties on Church Lane from high speed H1 rail noise, which is understood to be a timber structure 4.5m high⁴. In addition to this there are a number of other off-site industrial sources immediately south of the railway lines which could also be potential sources of LFN such as Network Rail Sevington Sidings Works, approximately 90m and Ashford International Truck Stop, approximately 155m. In comparison the IBF site exit road is approximately 155m from the nearest residential property on Church Road, which also has a timber acoustic barrier. It should be noted that noise from Ashford International Truck Stop will be a similarly sound to that from IBF Sevington, both having moving and potentially idling HGVs. Refer to Aerial Image 1.

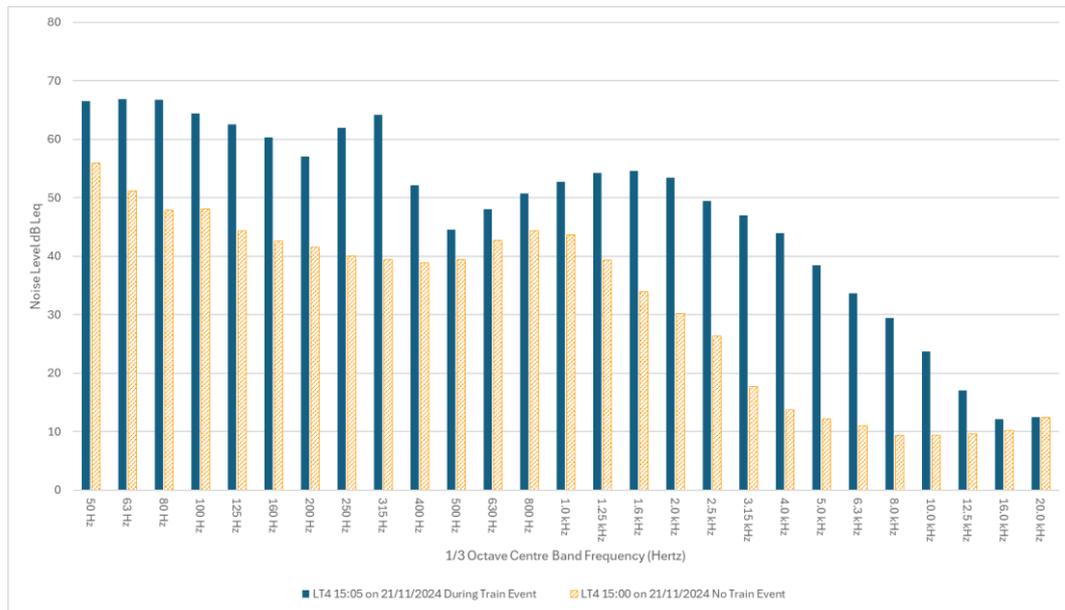
- 9.13. Spectrum noise measurements undertaken at monitoring location LT4, approximately 45m from the high speed railway line with and without a rail even is presented in Histogram 1, illustrating the increase in low (25Hz-125Hz) and mid (160Hz-400Hz) frequency content during the rail event. Increase in high frequencies are also observed.

Aerial Image 1: IBF Sevington & Ashford International Lorry Park



⁴ <https://democracy.kent.gov.uk/documents/s73927/Item%20C2%20-%20Waterbrook%20Park.pdf>

Histogram 5: 1/3 Octave Noise Measurements at LT4 With & Without Train Event

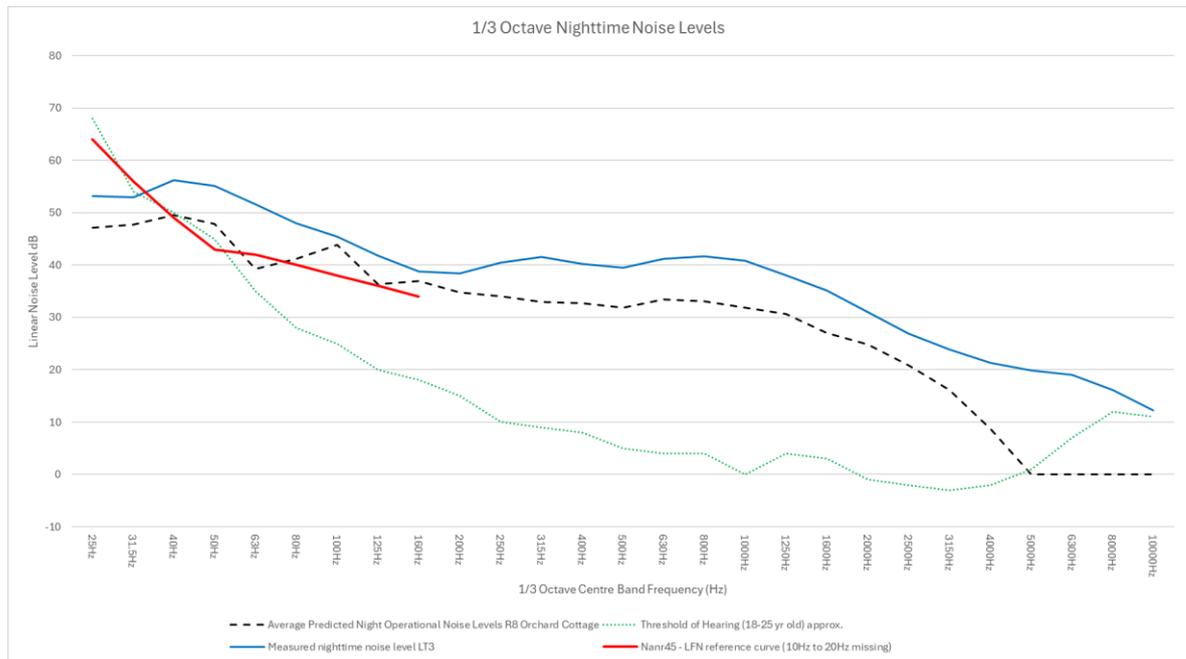


- 9.14. *Histogram 2 presents the nighttime predicted IBF operational noise levels at Orchard Cottage (R8 at 4m above ground level) together with the measured nighttime noise level at monitoring location LT3, approximate threshold of hearing and the NANR45⁵ LFN reference curve – although the reference curve is normally with regard to internal noise levels and can be relaxed by 5dB under certain circumstances.*
- 9.15. *The measured noise levels at LT3 are higher than those predicted at Orchard Cottage. This is expected given LT3 is closer to IBF Sevington sources and includes noise from other ambient sources (road/rail). The predicted 1/3 octave nighttime noise levels externally to Orchard Cottage are predicted to be at the threshold of hearing at 40Hz and just above the threshold of hearing from 50Hz to 63Hz with an increase at 100Hz. When comparison is made against the NANR45 LFN reference curve, which as already stated is with regard to internal and not external noise levels, the predicted external nighttime noise level is at the reference curve at 40Hz, above it at 50Hz and 100Hz and below at 63Hz. When account is taken of attenuation from outside to inside through a slightly open window (Table 5.6 of NANR 116⁶), it is considered that the predicted internal noise levels from IBF nighttime operational noise would be below the NANR45 LFN reference curve.*

⁵ Dr A Moorhouse, Dr D Waddington, Dr M Adams. (February 2005). Defra contract NANR45. Proposed criteria for the assessment of low frequency noise disturbance. University of Salford.

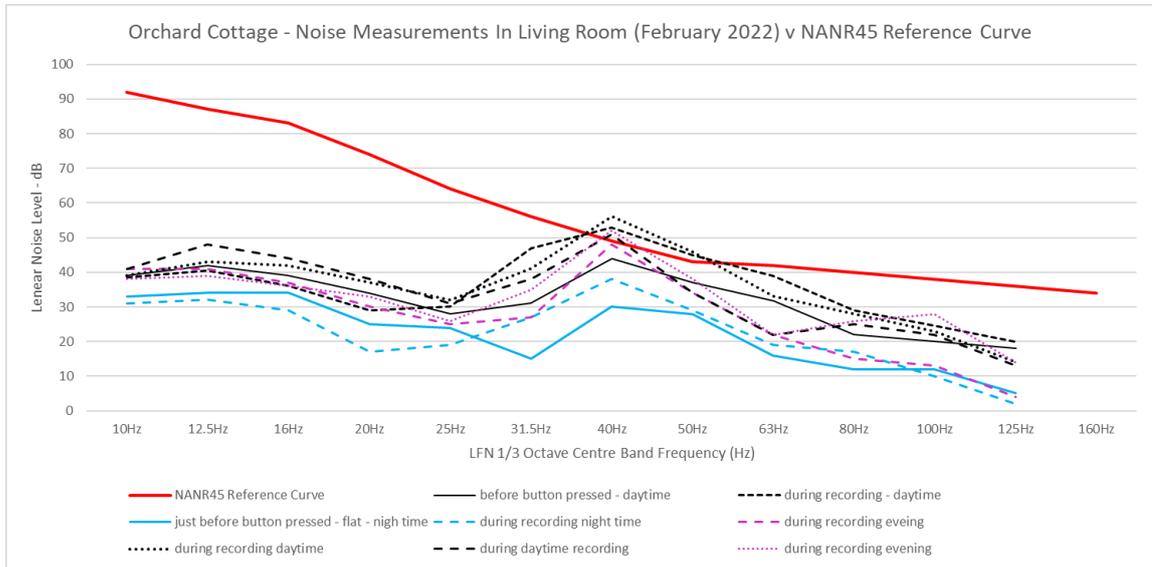
⁶ Napier University School of The Built Environment. (April 2007). Defra contract NANR 116. Open/Closed Window Research Sound Insulation Through Ventilated Domestic Windows. Napier University.

Histogram 6: Nighttime Predicted IBF Noise Levels at Orchard Cottage & Measured Levels At LT3

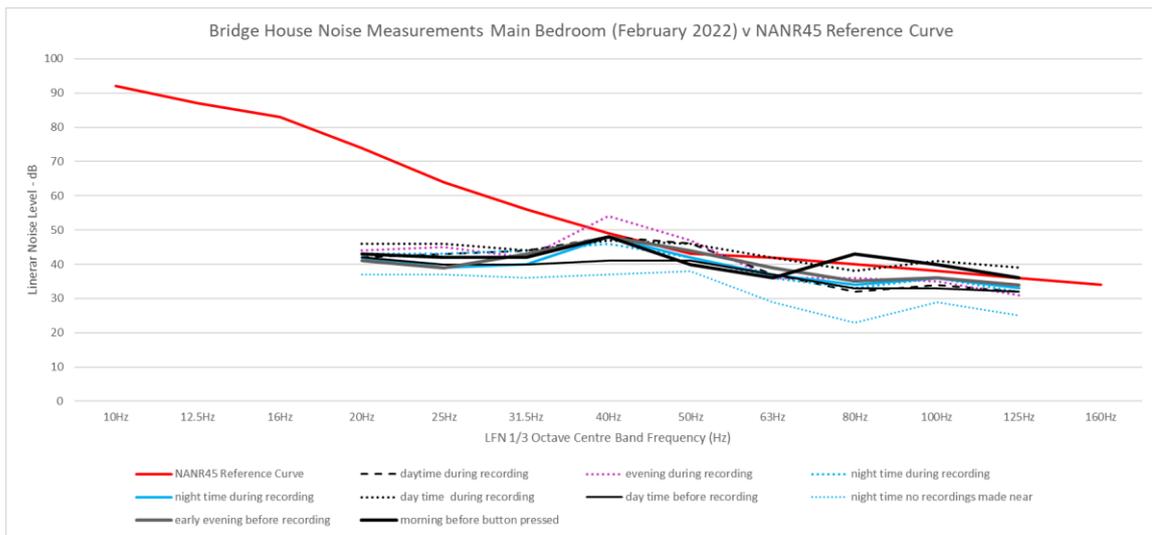


- 9.16. *The overall predicted external nighttime noise level of IBF operational noise is 40dB LAeq,15 minutes, which is **not** considered to be ‘high’ and would result in noise levels of around 30dB LAeq,15 minutes internally through a partially open window, which is at a benchmark level suitable for residential amenity. It is appreciated however that a broadband overall noise level does not necessarily provide an indication of LFN content.*
- 9.17. *Histogram 3 presents the measured internal noise levels in February 2022 in the living room of Orchard Cottage and Histogram 4 presents the same but in the main bedroom of Bridge House. It is assumed that the noise measurements were conducted by Ashford Borough Council (ABC) as they were sent by email from ABC to Defra dated 17th February 2022, therefore predating Mott MacDonald’s investigation of IBF Sevington LFN. The description of the measurement sets does however indicate they were undertaken in an unoccupied room and therefore could potentially be contaminated. Also, the noise event measurements may be of a source not associated with IBF Sevington. Both Histograms also include the NANR45 LFN reference curve. Where noise levels exceed the NANR45 LFN reference curve the document states “it may indicate a source of LFN that could cause disturbance.” The assumption is that Mott MacDonald were provided this information which formed part of their investigation.*

Histogram 7: Orchard Cottage – Internal Noise Levels In Living Room (Feb 2022)



Histogram 8: Bridge House – Internal Noise Levels In Main Bedroom (Feb 2022)

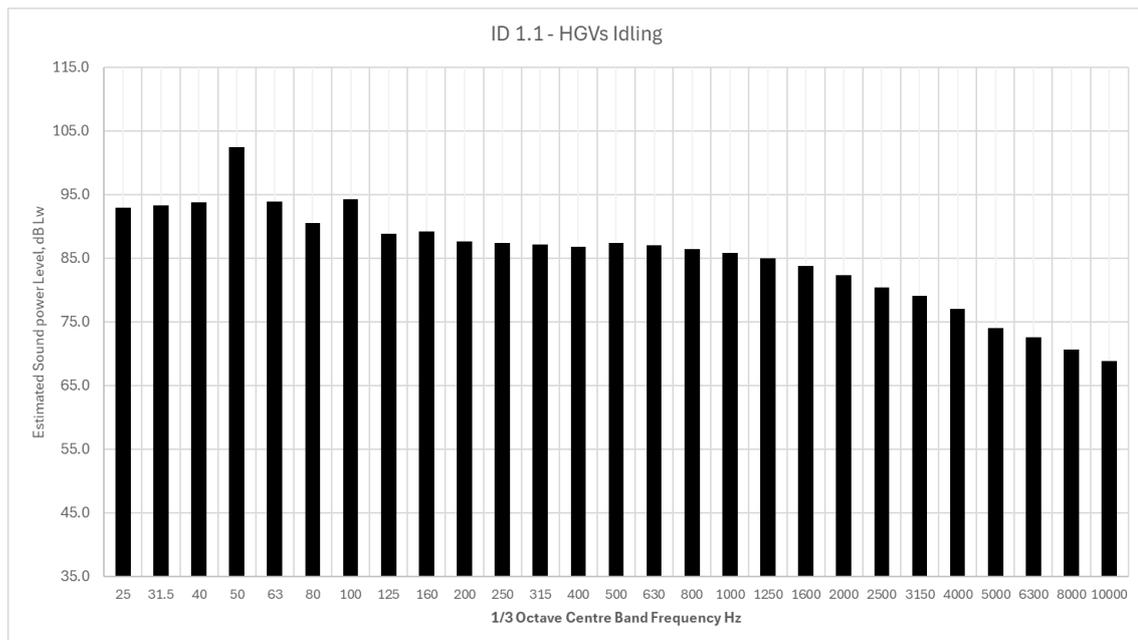


9.18. *At face value, notwithstanding potential contamination or source not being IBF operational noise, daytime recordings within Orchard Cottage living room illustrate exceedance of the NANR45 LFN reference curve at 40Hz and 50Hz, with slight exceedance during one evening measurement at 40Hz. No exceedance of the NANR45 LFN reference curve is illustrated during the nighttime event measurements. Within Bridge House main bedroom, Histogram 4 illustrates exceedance of the NANR45 LFN reference curve at 40Hz during one evening measurement period. Exceedance at 50Hz is also evident during one evening and daytime period with another exceedance at 100Hz. There are no*

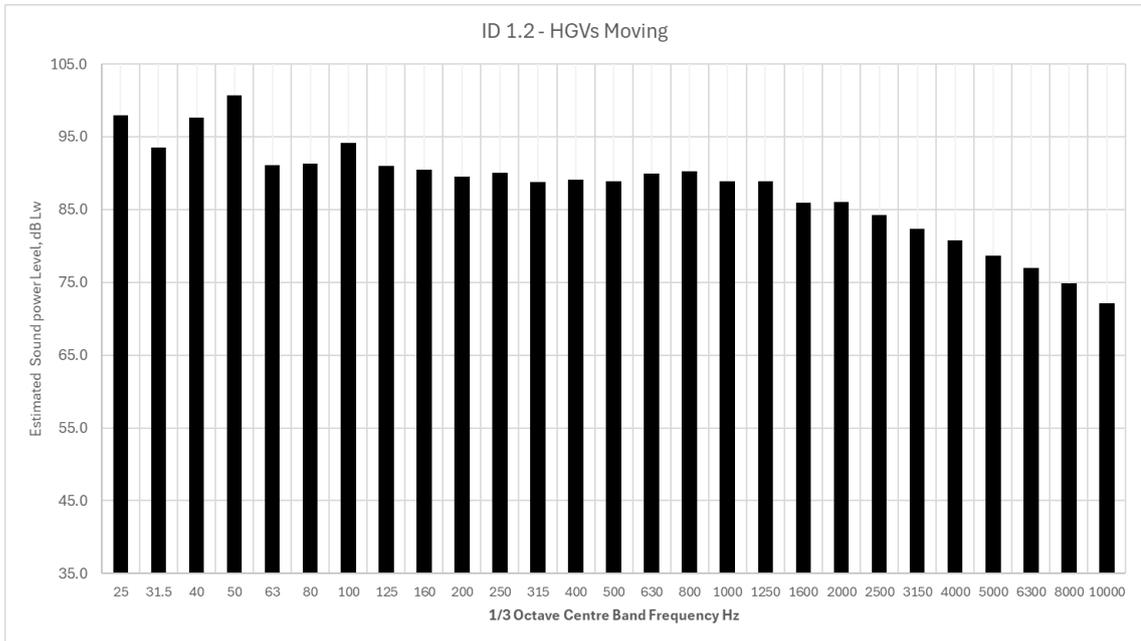
exceedances during the nighttime period, although at 40Hz it is at the NANR45 LFN reference curve.

- 9.19. As detailed in Chapter 9 of the ES and Appendix 9.5, source noise measurements were undertaken of key IBF Sevington noise sources. These were input into the CadnaA noise model to allow prediction of spectrum operational noise levels at the nearest sensitive receptors. As detailed in paragraph 9.37 of the ES, the dominant noise sources was considered to be from the movement of HGVs around the Site.
- 9.20. Histogram 5 to Histogram 14 present the 1/3 octave sound power levels derived from measurement of the various IBF noise sources. It should be borne in mind that the acoustic spectrum of the sound at source is not necessarily reflective of the acoustic spectrum at receptor locations, due to distance attenuation and intervening screening. It is the acoustic character at receptor location that is used for the BS4142 assessment and not the noise spectrum at source

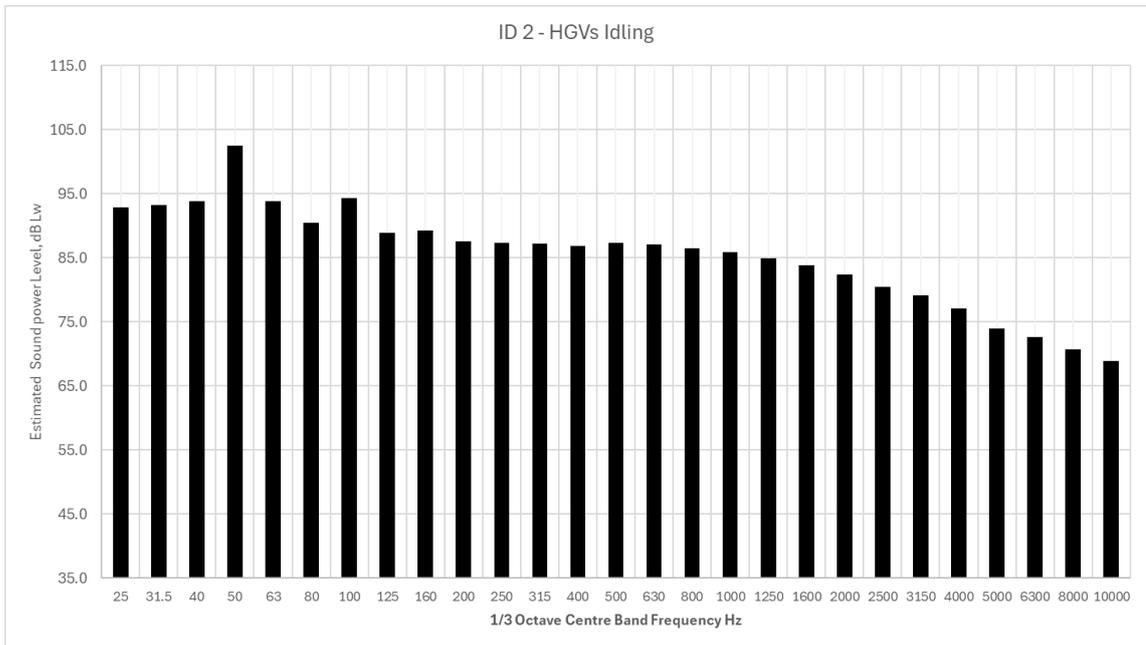
Histogram 9: 1/3 Octave Estimated Sound Power Level HGV Idling



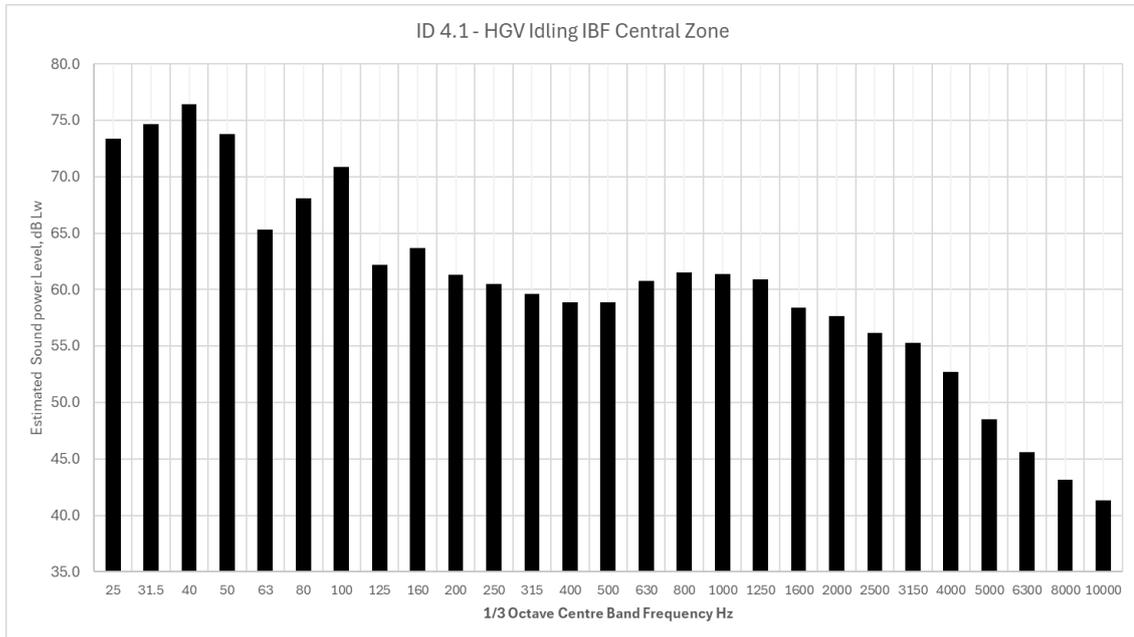
Histogram 10: 1/3 Octave Estimated Sound Power Level HGV Moving



Histogram 11: 1/3 Octave Estimated Sound Power Level HGV Idling

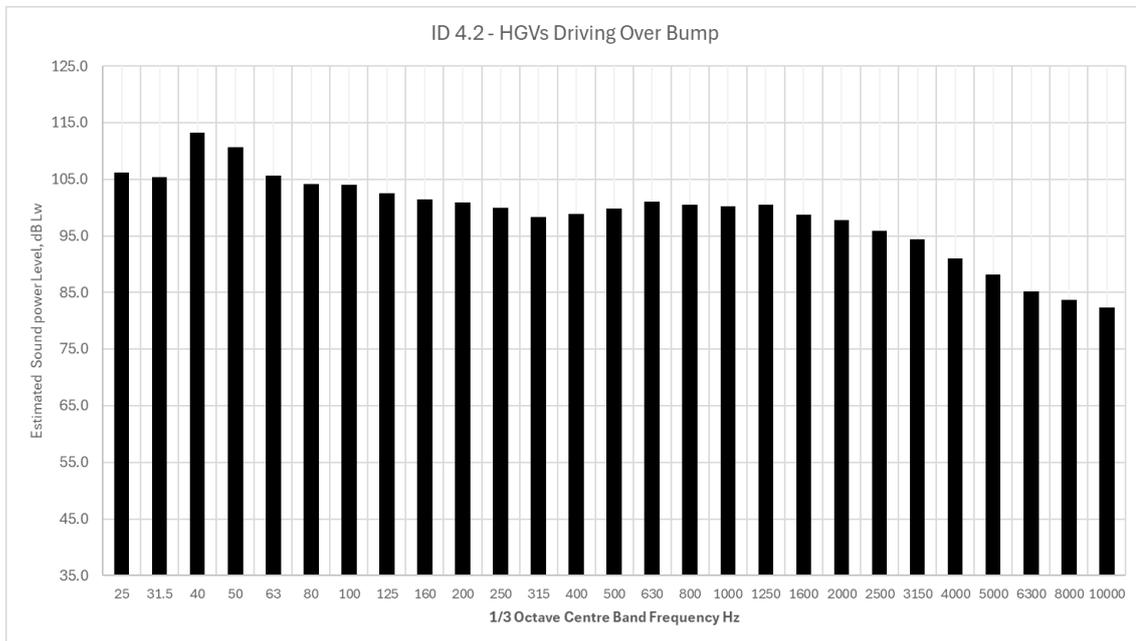


Histogram 12: 1/3 Octave Estimated Sound Power Level HGV Idling in IBF Central Zone



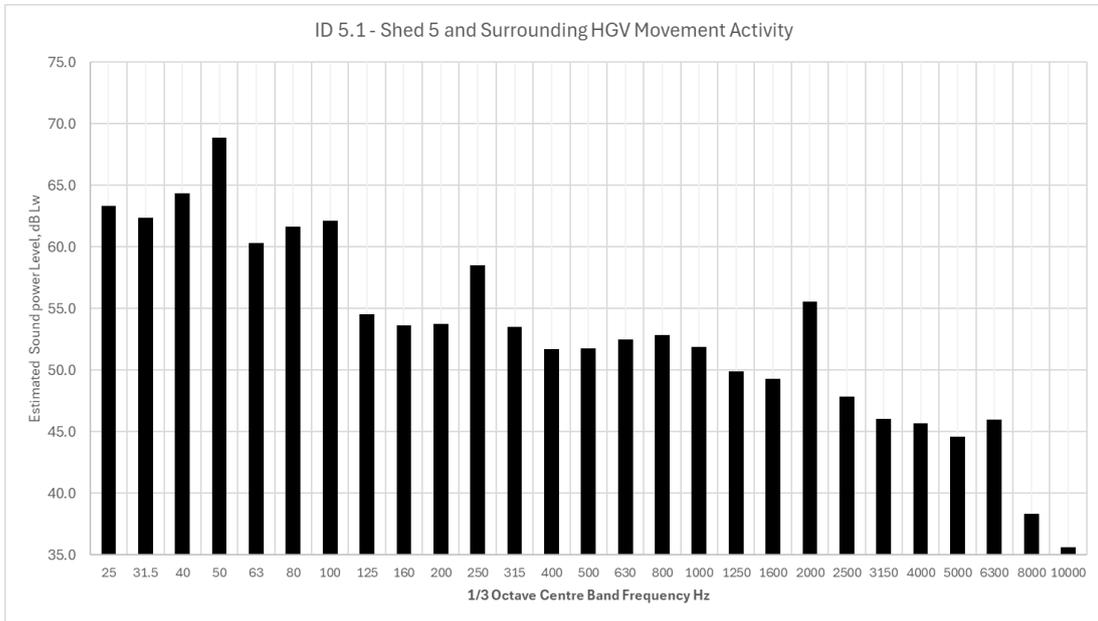
- 9.21. *HGV idling appears to have a prominent tone at 50Hz (refer to Histograms 5 and 7). Based on the level difference with the adjacent 1/3 octave bands it would not normally be regarded as tonal. Conversely the HGV bypass event does not exhibit any prominent tones (refer to Histogram 6).*
- 9.22. *Histogram 8 represents the spatial average of HGV idling in the IBF Central Zone. The spectrum exhibits a higher low frequency content compared to the mid to high frequencies, but with no dominant tones evident. HGVs arriving and leaving the area as well as reverse alarms also contributed to the spatial measured noise levels. It should be noted that the estimated spatial average sound power level within the lower frequencies are significantly lower than illustrated in Histograms 5, 6 and 7.*

Histogram 13: 1/3 Octave Estimated Sound Power Level HGV Driving Over Bump

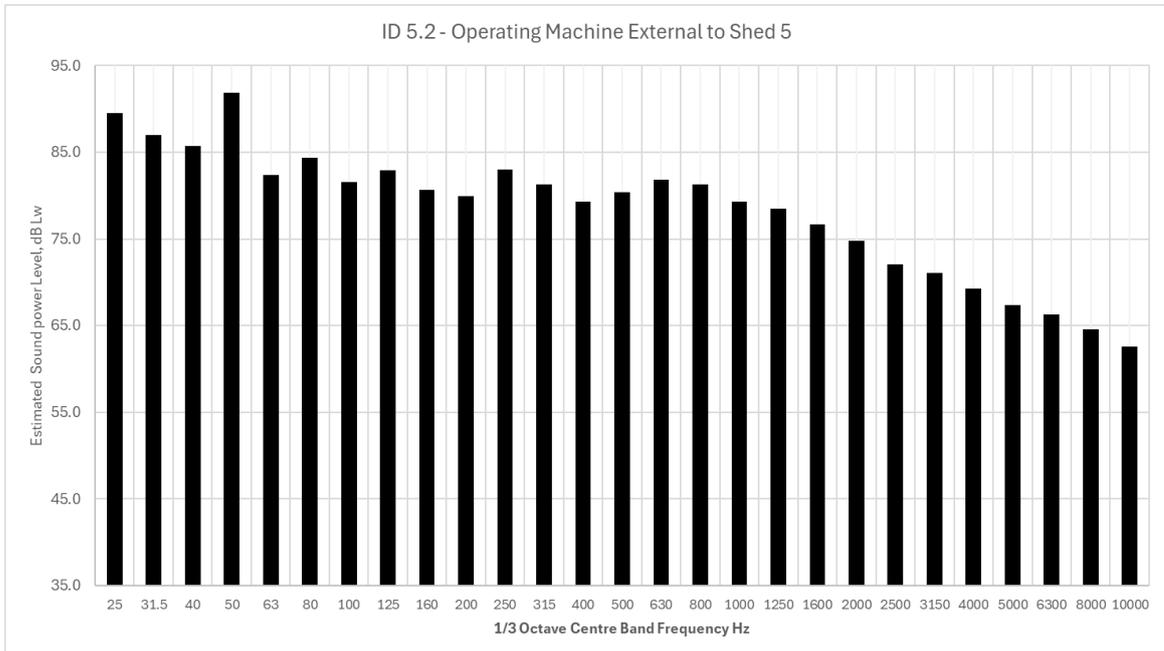


- 9.23. *Histogram 9 has slight elevation at 40Hz and 50Hz but not considered to be prominent enough to be tonal.*
- 9.24. *Histogram 10 indicates an elevation at 50 Hz and 250Hz, but based on adjacent 1/3 octave band wouldn't normally be considered as tonal. There is potentially some tonality at 2kHz, however when account is taken of the absolute level and distance separation to the nearest residential properties and intervening screening, these would be reduced to below residual noise levels at receptor locations. For example, a sound power level of 56dB Leq at 2kHz, would reduce to approximately 4dB Leq based on 20 log attenuation and 26dB Leq based on 10 log attenuation.*

Histogram 14: 1/3 Octave Estimated Sound Power Level Shed 5 & HGV Activity



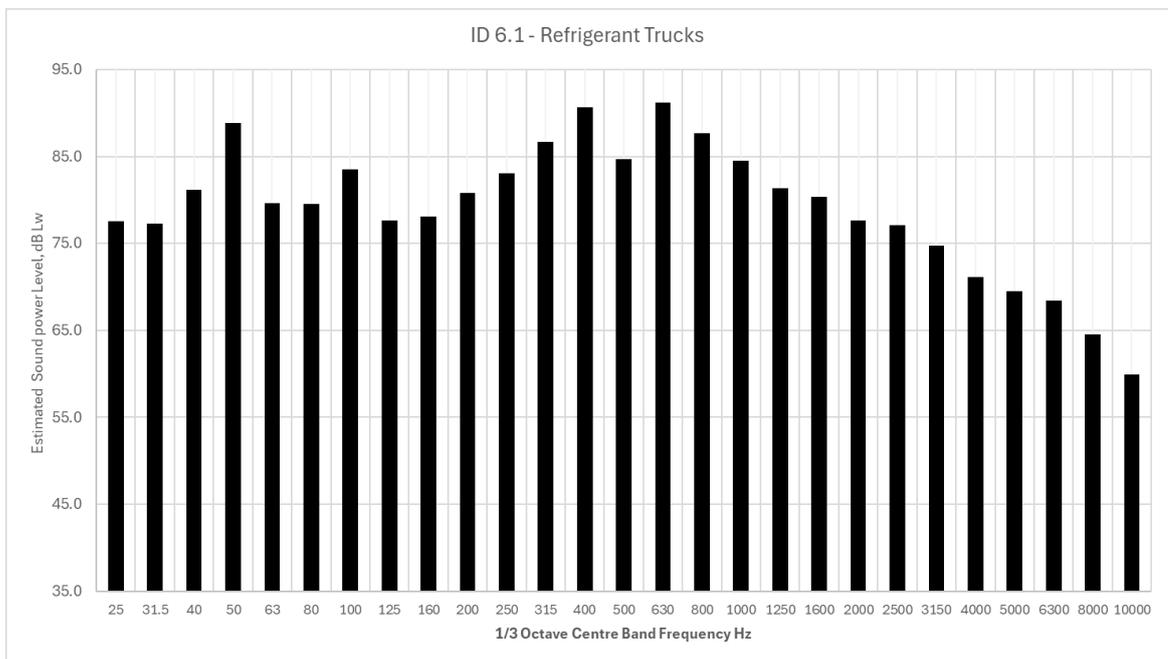
Histogram 15: 1/3 Octave Estimated Sound Power Level of Scissor Lift External to Shed 5



9.25. *Histogram 11 indicate an elevated level at 50Hz, but as previously stated, the level difference with the adjacent 1/3 octave bands is not normally regarded as tonal within this part of the low frequency spectrum.*

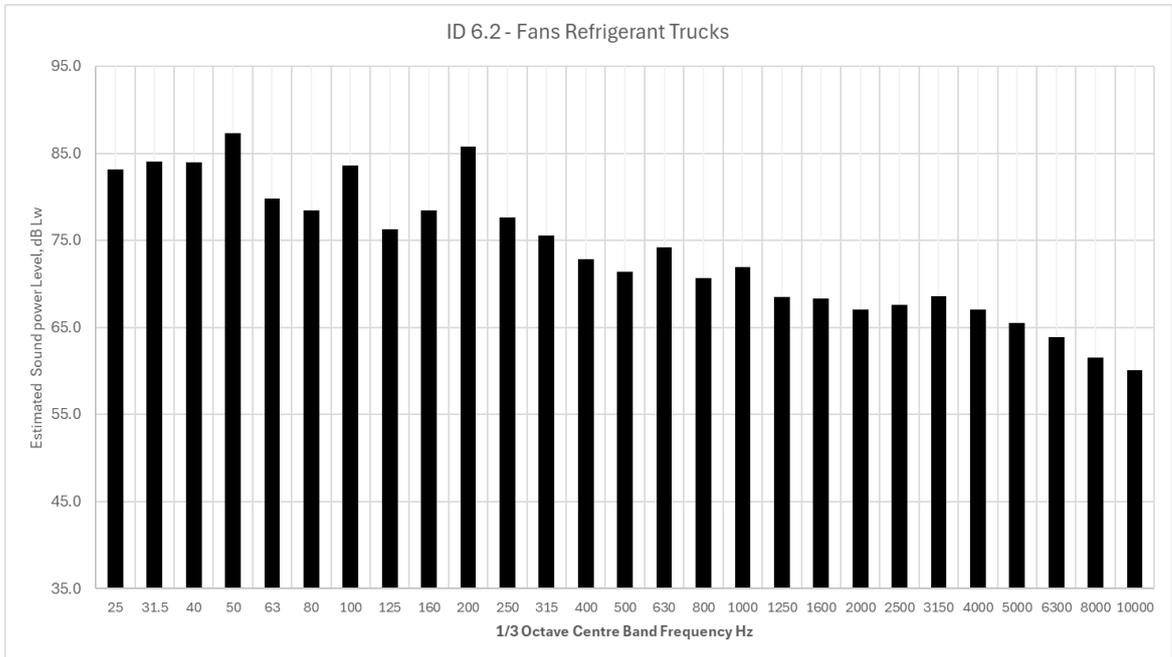
9.26. *Histogram 12 indicates an elevated level at 50Hz but with some elevation in the mid to high frequency at 400Hz and 630Hz. Taking account of refrigeration truck hook up locations within the IBF site, Defra central and HMRC east of 'Romeo' emergency parking area, they are considered to be too distant from residential receptors to result in discernible noise levels. The Defra central area hook up is approximately 345m from nearest Church Road residential properties and HMRC hook up is approximately 375m from the nearest Church Road residential properties.*

Histogram 16: 1/3 Octave Estimated Sound Power Level of Refrigerant Truck Static

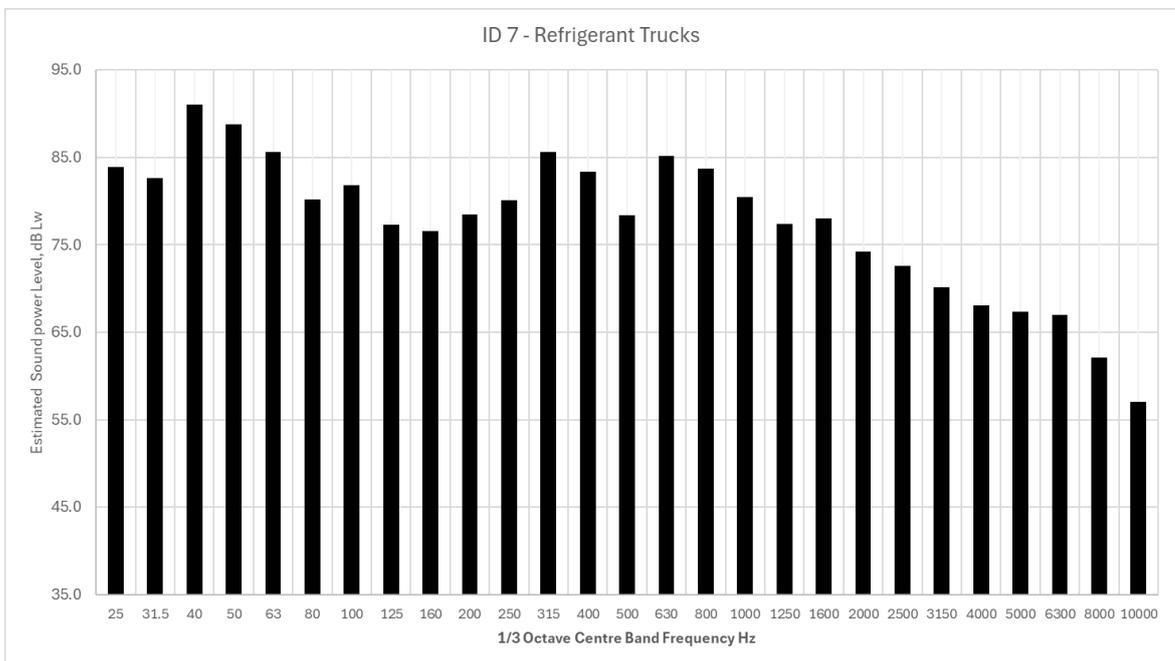


9.27. *Histogram 13 indicates elevation in levels at 50Hz, 100Hz and 200Hz resultant from fan noise associated with the refrigerant truck. Fan noise at 50Hz, 100Hz, and 200Hz is caused by a combination of aerodynamic (turbulence and blade passing) and mechanical issues. The 50Hz noise is likely from the AC power supply, while the 100Hz and 200Hz sounds are related to the fan's rotation speed, often referred to as the "blade pass frequency".*

Histogram 17: Estimated Sound Power Level of Fan Noise From Refrigerant Truck



Histogram 18: Estimated Sound Power Level of Refrigerant Truck



9.28. *Histogram 14 indicates elevation in level at 40Hz from the refrigerant truck, although based on the 1/3 octave spectrum it is not evidently regarded as tonal.*

- 9.29. *It is accepted that based on source noise measurements and predicted levels at receptor locations that due to the very nature of the noise sources that they do have LFN and mid-frequency content. This is also the case for the residual noise from road, rail and Ashford International Truck Stop sources. IBF operational noise levels at receptor locations, based on results of the assessment are not at a level normally associated with significant harm to health. None of the BS4142 results or change in residual noise level indicated a SOAEL (significant observed adverse effect level). Waterman have not undertaken a specific assessment of LFN complaints at Orchard Cottage on Church Road, Bridge Cottage on Highfield Lane, as at the time of the assessment it was understood from Ashford Borough Council that these complaints had been resolved, and no further action was required.*
- 9.30. *During the survey where measurements of key noise sources were taken, use of vehicle horns was not observed. It is considered that noise from this source if it were to occur could be dealt with through management of the Site and signage, as could noise from idling refrigerated vehicles not using hook-ups provided. Also, during the noise source survey clanging of curtain sider poles was not observed and therefore not measured. Again, noise from this source if it were to occur could be dealt with through management of the Site as it is assumed this is only done to allow inspection of goods being carried out by the Site operators.*

EPT Comment 2

- 9.31. **Further consideration into the use of the perimeter road to the south of the site used by the HGV's to exit the site. The applicant will need to consider alternative routes out of the site, particularly during the nighttime period.**
- 9.32. *The main source of noise from the IBF Site is from movement of HGVs around the Site as detailed in paragraph 9.37 and 9.62 of the ES. The results of the noise assessment does not however indicate there is a requirement for additional mitigation or requirement for an alternative route out of the Site. It is accepted however that suspended use of the southern site access road during the nighttime period would result in lower noise levels from HGV movements to receptors on both Church Road and Highfield Lane.*

EPT Comment 3

- 9.33. **Revisit and address the comments, information and submissions received as part of the public consultation in 2024.**
- 9.34. *It is understood that this relates to the noise logs provided by a resident. It is not clear from the 70 page report what noise equipment was used to measure the levels of LFN or the methodology used. It is also noted that it is the LFmax noise parameter and not the Leq noise parameter that is presented. Based on the information provided Waterman are unclear on the robustness of the measurement data but accept that based on the repeated entry information from 2021 to 2024, the resident allege that the noise emissions*

from the IBF at his property to be unacceptable. With regard to LFN, this was not found to be the case by Mott MacDonald, which was understood by Waterman to be accepted by EPT of ABC.

EPT Comment 4

- 9.35. **Provide information showing the number of days the emergency parking area (Tango) has been used each year since the site opened.**
- 9.36. *This information is provided in the SoM.*

Sevington with Finberry Parish Council

- 9.37. Sevington with Finberry Parish Council have made a number of comments with regard to noise in the context of Local Plan S15 – Finberry North West (relevant paragraph 3.193) NPPF Chapter 15. These are reproduced below.

Sevington with Finberry Parish Council – Comment 1

- 9.38. **General noise, tonal noise (humming, repeated sounding of horns, reversing sounders) and Low Frequency Noise (LFN) have been reported with some residents suffering impact to health and disturbed sleep. The complaints were supported by the local EHO following noise monitoring in two dwellings near the site.**
- 9.39. *As already stated, repeated sounding of horns was not observed during the measurement of key IBF operational noise sources. Noise from this source if it were to occur could be dealt with through site management procedures.*
- 9.40. *Reverse alarms were occasionally noted where HGVs have to reverse out of parking spaces. They were not however noted as the dominant source on site.*
- 9.41. *With regard to the comment on LFN and noise monitoring in two dwellings, if this is the noise monitoring that was conducted within a living room at Orchard Cottage and main bedroom of Bridge House in 2022, then the results indicate that the NANR45 reference curve for LFN is not exceeded during the nighttime period. This would be indicative that LFN during the nighttime period does not result in health impacts or disturbed sleep, although it is appreciated and as reflected in NANR45 that “LFN is known to occur at levels only slightly higher than hearing threshold, which varies from one individual to the next.” So LFN sound could appear loud to one person yet inaudible to another. It should also be borne in mind that exceedance of the NANR45 LFN reference curve is not a prescriptive indicator of nuisance. The NANR45 document also highlights that people can also become ‘sensitised’ to LFN.*

Sevington with Finberry Parish Council – Comment 2

- 9.42. **The movement of lorries via an exit road between the acoustic fence and buildings has also been raised as a specific issue, resulting in noise reflecting off the buildings towards Church Road and the low frequency thrum of HGV's accelerating up the hill being heard inside houses.**
- 9.43. *Waterman undertook source noise measurements of HGVs on this section of the exit road and it is this what is within the noise model.*
- 9.44. *Acoustic barriers are located both sides of the railway line south of Church Road, channel tunnel rail link (CTRL) together with barriers associated with Network Rail Sevington Sidings Works Delivery and Ashford International Truck Stop. The parallel rail acoustic barriers may result in rail noise reflecting back to Church Road receptors.*

Sevington with Finberry Parish Council – Comment 3

- 9.45. **Some parts of the site feature no acoustic barriers to residential property.**
- 9.46. *The noise assessment did not indicate that additional mitigation to that already existing is required although Provision of additional acoustic barriers would provide additional screening to some residential properties that currently do not benefit from this. Examples of this include Court Lodge Farm (R3) and Lagonda Lodge (R1).*

Sevington with Finberry Parish Council – Comment 4

- 9.47. **The noise report as submitted makes no consideration to the detailed assessment of tonal issues that have been raised. It is significantly less robust than the noise report as submitted for the SDO, which highlighted risks associated with some of the issues that local residents are reporting (such as refrigerated trailers kept to the north of the site). It also makes no reference to the operational changes that have been made which we are aware has had some beneficial impact during periods of lower operational demand.**
- 9.48. *Waterman's noise assessment is based on current IBF operations. This included noise measurement and quantification of key IBF sources and prediction of IBF source noise levels at receptor locations using CadnaA noise modelling software, which is a recognised approach. The assessment takes account of the acoustic spectrum of the various IBF noise sources, including refrigerated vehicles, which were input into the CadnaA noise model. The assessment is considered robust.*
- 9.49. *Waterman is not aware of any operational changes that have been made to IBF Sevington prior to Waterman's noise assessment of current operations.*

Sevington with Finberry Parish Council – Comment 5

- 9.50. **The implemented acoustic strategy is not fit for purpose, with timber acoustic fencing providing very little attenuation at lower frequencies.**
- 9.51. *This is an unsupported assertion. Timber acoustic fences with the correct properties are used widely in both commercial and industrial settings which have noise emissions with a high low frequency content.*
- 9.52. *Acoustic barriers provide less attenuation at the lower frequency end of the spectrum due to the longer wavelength, but this is not restricted to timber acoustic fencing. The overall attenuation at the lower frequencies will be dependent on the specific properties of the timber acoustic fence such as density (mass) which is key as well as height and length of the barrier.*

Sevington with Finberry Parish Council – Comment 6

- 9.53. **An independent noise impact assessment should be sought that considers all complaints made, with recommendations implemented as part of any permission granted.**
- 9.54. *At the time of the noise assessment Waterman were not made aware of any ongoing noise complaints from ABC. Waterman were made aware of a historic complaint regarding LFN which Mott MacDonald investigated to the satisfaction of ABC. Waterman's noise assessment has been undertaken in line with current British standards, guidance and good practice without prejudice or bias. The results indicate negligible to minor adverse effects from IBF operational noise but not at a level that would be regarded as significant.*

The Village Alliance

- 9.55. The Village Alliance has made the following statement **“We have had complaints from residents in Kingsford Street, of a low frequency hum which is present 24 hours a day and seems to have coincided with SPS inspections. This is affecting residents' quality of life, particularly at night, because there is nothing one can do to protect your home against this low frequency noise. I am aware of complaints of this noise pollution from the Sevington side of the site also.”**
- 9.56. *At the time of the noise assessment Waterman were not aware of this complaint but LFN has previously been investigated . The complaint implies this is a constant source of low frequency noise which does not align with current operations on the IBF.*

Residents

- 9.57. **12 objections to noise pollution. Objection from one resident supported by noise monitoring evidence from November 2021 to October 2024.**

- 9.58. *Objections from the resident are as follows and which Waterman have provided a preliminary response:*
- 9.59. **The noise emitted from the site has resulted in significant loss of amenity, regularly intrusive outside, often intrusive internally. The noise has impacted sleep and induces a feeling of nausea, particularly when continuous over several hours. Noise issues from the site, in order of impact, are as follows:**
- a. Low frequency noise from multiple idling engines and refrigerated trailers**
 - b. Tonal noise from some refrigerated trailers when on electric hook-up**
 - c. Reversing beepers**
 - d. Clanging of curtain-sider poles.**
 - e. Horns As the site is operational 24 hours a day, disturbance can happen at any time of the day or night..**
- 9.60. *Mott MacDonald investigated the complaints with regard to LFN from movement of HGVs on the site exit road which were shared with ABC. Waterman understands from email communication dated 13th July 2022 that EPT were satisfied with the findings of Mott MacDonald's Technical Note and closed the investigation as had no further complaints or log sheets from the neighbouring residents.*
- 9.61. *As to 'alleged' tonal noise from some refrigerated trailers when on electric hook-up, the Defra central area electric hook-up is approximately 345m from nearest Church Road residential properties and HMRC hook up is approximately 375m from the nearest Church Road residential properties. These sources are both in the 3D CadnaA noise model and are not predicted to contribute significantly to the overall IBF operational noise level at Church Road residential properties. The dominant source is predicted to be from HGV movements on the internal access road. The distance attenuation to the overall sound power level from the electrical hook-ups at 345m and 375m based on 20 log hemispherical attenuation is approximately 59dB(A). At the lower frequencies the additional attenuation due to atmospheric absorption, ground effect and barrier is less at the low frequency end of the spectrum. Based on this and source noise measurements, this was not identified as a potential dominant source at Church Road receptor location.*
- 9.62. **Operation of refrigerated trailers on Diesel, when singular, creates a tonal noise which can be heard inside the house. When more than one, the noise phases, amplifying and cancelling out, which becomes extremely unpleasant both inside and outside the house.**
- 9.63. *Refrigerated vehicles should be using the electrical hook-ups. This can be managed through implementation of on-site management procedures.*
- 9.64. **During winter when many engines are idling for warmth, the LFN can have the effect of distant rumbling thunder that can continue for days.**

- 9.65. *The allegation of LFN has been investigated as already identified. Noise from idling engines can be managed by on-site management procedures in any event.*
- 9.66. **The route for HGV's to exit the southern part of the site is via a road which is closest to the residences on Church Road, between tall buildings, which reflect noise towards Church Road residences. As this is on a hill, the low drone of each and every accelerating HGV through the gears can be heard inside the house whenever this road is used.**
- 9.67. **Any refrigerated trailers pass with a dominant tonal disturbance until they are well in the distance. Whilst it is recognised that operational changes have been made to address repeated complaints from myself and neighbours, issues remain which are caused by the current arrangement and operation of the site. When the site is busy, the noise increases exponentially. Complaints made generate a response of 'the site was extremely busy, and there's nothing we can do about it'. With the site expected to increase in use, it is fundamental that the sites configuration and acoustic treatment is improved. The low frequency noise has impacted sleep and ability to spend time outside of the house pursuing hobbies. Its effect is that of an increasing sense of agitation, stress in the neck and shoulders and a slowly increasing feeling of nausea. Options to re-locate were explored but costly. Therefore, to attempt to resolve, we have sought advice and soundproofed our bedroom with acoustic insulation, mass loaded vinyl barriers and window treatment. Whilst this has helped, windows must be shut year round which is unpleasant for someone who previously enjoyed sleeping with the windows open.**
- 9.68. *The CadnaA noise model includes buildings, acoustic barriers and is based on IBF source noise measurements. This is a recognised approach to allow prediction of source noise levels at receptor locations.*
- 9.69. *Waterman's noise assessment is based on current operations.*
- 9.70. *The noise assessment is based on the highest daily HGVs and the maximum daily HGVs. The statement that "the site is expected to increase in use", essentially above that which has been assessed is unsupported.*
- 9.71. **During waking hours, our time is spent in the quietest rooms, usually to the rear of the house. Our living room and dining room are rarely used now, as it is often unpleasant.**
- 9.72. *The noise assessment undertaken by Waterman is based on the highest predicted IBF operational noise level at the receptor locations. With regard to Orchard Cottage it is the façade facing the IBF site.*
- 9.73. **The local EHO has monitored noise in the house and confirmed elevated levels of LFN were present.**

- 9.74. *Waterman are aware that noise measurements have been undertaken within both Orchard Cottage and Bridge House which have been reviewed in this Technical Note.*
- 9.75. **Issues were logged and a 70 page report detailing the noise issues and readings were submitted as part of the public consultation in 2024. The aim of providing this information was for the noise issues to be better understood and be addressed as part of the permanent application.**
- 9.76. *It is not clear from the 70 page report what noise equipment was used to measure the levels of LFN or the methodology used. It is also noted that it is the LFmax noise parameter and not the Leq noise parameter that is presented. Based on the information provided Waterman are unclear on the robustness of the measurement data but note from the repeated entry information from 2021 to 2024, the resident asserts that the noise emissions from the IBF at his property to be unacceptable. With regard to LFN, this was not found to be the case by Mott MacDonald, which was understood by Waterman to be accepted by EPT of ABC. It was on this basis that the noise assessment by Waterman was undertaken.*
- 9.77. **The records of public engagement show noise issues being raised by numerous residents. However, the issue does not appear to be addressed or even acknowledged. The noise report as submitted makes no consideration of the complaints made, nor does it consider any tonal or low frequency sources. It is therefore fundamentally flawed as it has not fully considered noise sources at the site. This alone is reason to refuse and for the applicant to address the site configuration and acoustic treatment.**
- 9.78. *As already stated, Waterman's understanding was that the LFN complaint was investigated by Mott MacDonald and the complaint was closed by ABC based on the findings of the investigation.*
- 9.79. *Waterman's noise assessment has taken account of the various noise spectrums of the key IBF noise sources, as detailed in Chapter 9 of the ES.*
- 9.80. **The consideration of tonal noise, of which LFN can be considered, is detailed in guidance supporting the NPPF. There is also growing research in the health impacts of LFN.**
- 9.81. *This Technical Note assesses the LFN noise measurements within Orchard Cottage and Bridge House and makes comparison with the NANR45 LFN reference curve. It is accepted that this is not presented within the ES Chapter 9, but Waterman (as already stated) were of the understanding that this had been investigated by Mott MacDonald and closed out.*
- 9.82. **The original noise report as submitted for the SDO highlights the requirement for refrigerated trailers to be kept to the northern part of the site.**

- 9.83. *Waterman are not aware of this requirement. However, the assessment is based on refrigerated HGV using the electric hook-ups when on site and not idling. The location of the electric hook-ups are relatively distant from receptors on Church Road.*
- 9.84. *Site management procedures could be used to stop the idling of HGVs when parked up at the IBF site if required.*
- 9.85. **The current operation of the site requires refrigerated trailers to enter and dwell on the southern part of the site and the proposals as submitted appear to permit the site to emit significantly more noise than current.**
- 9.86. *This is not Waterman's understanding of site operations.*
- 9.87. **Early residents meetings informed us that earth bund gabion style acoustic barriers would be used to provide the required attenuation. We were therefore surprised to see timber screening being installed, through which daylight could be seen in some locations. Timber fencing, with no absorptive materials, has minimal effect on LFN. The resulting effect is higher frequencies being attenuated, whilst the LFN becomes more dominant in the soundscape. The timber acoustic treatment is not fit for purpose.**
- 9.88. *Waterman are not aware that earth bund gabion-style acoustic barriers were the expected mitigation strategy and not acoustic timber fencing.*
- 9.89. *As already stated, timber acoustic fences with the correct properties are used widely in both commercial and industrial settings which have noise emissions with a high low frequency content. Acoustic barriers provide less attenuation at the lower frequency end of the spectrum due to the longer wavelength, but this is not restricted to timber acoustic fencing. Also, as already stated, the overall attenuation at the lower frequencies will be dependent on the specific properties of the timber acoustic fence such as density (mass) which is key as well as height and length of the barrier.*
- 9.90. **Disclosure - I am located near High Speed 1. Any claim to the presence of High Speed 1 and associated noise generation outweighing disturbance from the IBF must be considered in context. High speed trains cause 5 seconds of noise every 15 to 30 minutes depending on the time of day, and not after 10pm or before 6am. Therefore, the noise impact from High Speed 1 on a busy day represents approximately 0.6% of the day. In addition, noise sources from the Waterbrook railhead are treated with significantly superior barriers.**
- 9.91. *It is considered by Waterman that noise from HS1 significantly contributes to the prevailing ambient noise climate at Church Road.*
- 9.92. *The statement regarding the barriers at Waterbrook railhead are unsupported.*

Ashford Borough Council (ABC) Committee Report

- 9.93. There are a number of statements made with regard to the ABC Committee Report, which are as follows.

ABC Committee Report – Statement 1

- 9.94. **The Council’s Environmental Protection Team (‘ABC EPT’) is aware of an emergency overflow parking area to the south of the site (Site reference – ‘Tango’) that does not have any acoustic mitigation around its boundary. However, the ABC EPT understand that this area is only used on very rare occasions for short term use in extreme cases, although data has not been provided showing the actually annual use of this part of the site. If this area of the site were to remain used only occasionally, the ABC EPT would accept the application justification for minimal mitigation in relation to this area. However, if intended to be used on a more regular basis in the future, then ABC EPT identify that the site would need to provide suitable mitigation or restrictions (such as daytime use only).**
- 9.95. *This information is provided by the Applicant in the SoM. Waterman is aware that these are overflow areas not in daily use and that Romeo is used in the first instance then Tango when Romeo is full.*

ABC Committee Report – Statement 2

- 9.96. **ABC EPT note that local resident has submitted a representation to the CDA consultation regarding ongoing low frequency noise from HGVs moving or idling on the site, noise from refrigerated HGVs an additional noise from reversing beepers, clanging of curtain sider poles and horns from the site with reported minimal improvement to such noise disturbance over the years since the site has been in use. The representation reports that issues were logged with the site previously (including verbally and as a report as part of the public consultation in 2024). In reviewing the Acoustic Report submitted by the applicant, there appears to be no mention of this report or comments made by this resident in which case ABC cannot ascertain whether such matters have been fully addressed by the applicant in arriving at its conclusions.**
- 9.97. *Waterman’s assessment is based on measurement of key IBF operational noise sources observed whilst on Site. This included HGVs, including refrigerated HGVs, moving around the Site as well as refrigerated vehicles hooked up in the two designated areas. As already stated, Waterman did not observe use of horns or noise from clanging of curtain sider poles. If Waterman had been made aware of these specific sources as an on-going source of complaint prior to the survey, then this would have been raised with the Site operators and measurements taken if regarded as significant typical sources.*

ABC Committee Report – Statement 3

9.98. **In the absence of sufficient information, ABC EPT recommend that the following matters are investigated and fully addressed by the applicant:**

- **Additional investigation of the reported low frequency noise from HGVs, tonal noise from refrigerated HGVs, reversing beepers, clanging of curtain sider poles and horns in their analysis of the recorded data in their response.**
- **Further consideration into the use of the perimeter road to the south of the site used by the HGVs to exit the site. The applicant will need to consider alternative routes out from this part of the site avoiding the perimeter road, particularly during the nighttime period.**
- **Revisit and address the comments, information and submissions received as part of the public consultation in 2024.**
- **Provide information showing the number of days per annum the emergency parking area ('Tango') has been used since the site opened.**

9.99. *With regard to bullet one refer to paragraphs 8.6-8.12, 8.32 and 8.95.*

9.100. *With regard to bullet two refer to paragraph 8.32.*

9.101. *With regard to bullet three refer to paragraph 8.34.*

9.102. *With regard to bullet four refer to paragraphs 8.36 and 8.95.*