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Additional Mitigation Requirements

It is understood that the Environmental Health Department provided the following response following review of our Noise Impact Assessment (VA4946.231006.NIA):

“Regarding the noise assessment, this is showing that the noise from HGV manoeuvring on site would have an adverse impact at night time. Therefore this supports my recommendation to restrict night time activities on the site. They would need to propose additional mitigation if they wish to proceed without restrictions.”

We would note that the initial BS4142 assessment indicated a potential adverse impact due to HGV movements at night. However, BS4142 is clear that the actual noise impact is highly dependent on the context of the site, and it is important that the initial estimate is modified accordingly by considering this.

Our report goes on to point out that the context of the site is an existing light industrial area next to a busy road with HGV movements an established feature of the area.

The specific sound level from HGV movements is estimated to be L_{Aeq} 30dB at the nearest houses. In absolute terms, this is a low level, well below the night-time ambient sound levels that do not drop below L_{Aeq} 40dB. The background sound level drops to lower levels in between vehicle passbys at night, and acoustic penalty corrections due to possible reversing alarms have been included to be robust. Again, these are not out of character for the area and would not be particularly loud (similar to the background sound level).

It should also be noted that the BS4142 assessment is undertaken to an external location, while residents are much more likely to be inside their dwellings in the early hours of the morning when the lowest background sound levels are measured. Allowing a 10dB reduction through a partially open window¹, the internal sound levels would be below L_{Aeq} 20dB, well below the limit of 30dB suggested in BS8233, and the HGV movements are unlikely to be audible inside the houses.

¹ BS8233 suggests a loss of 10-15dB through a partially open window.

Furthermore, the sound is not continuous or anticipated to be frequent at night (given the size of the storage area, there would not be capacity for regular deliveries). When these deliveries occur, the sound is only present for the time taken to manoeuvre into the yard, which is again expected to be a brief period.

The infrequency, short duration and low level of the HGV movements is very unlikely to cause changes in the behaviour of residents. The sound levels would not be expected to cause sleep disturbances or cause residents to close their windows. While the sound may be audible outside the houses at the quietest times of night (1am – 3am), the sound levels are lower than the traffic on the roads and would not result in a loss of tranquillity. Within the dwelling the sounds are not expected to be audible. This supports a finding of a low impact in the context of the site.

Mitigation options to reduce the noise impact have been considered. Given that the site does not have control over the type of HGVs that make deliveries to the site, the remaining option to consider was an acoustic fence. There is already a large warehouse building between the site and the residential dwellings which will provide a good level of screening. Further screening from an acoustic fence would have minimal benefit. This is particularly true for low-frequency sound from HGVs, which acoustic fences are less effective against. Managerial approaches to control noise have also been provided in the acoustic report.

On balance, considering the low impact and infrequency nature of nighttime deliveries, it is not believed that an acoustic fence would be warranted or that night-time operation restrictions are necessary.

Yours sincerely
on behalf of Venta Acoustics

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