

Noise

Definition

Noise is generally defined as **unwanted sound**.

The noise from a fleet of heavy plant working twelve hours a day within 50m of some houses and always within 500m of a residential property will be intrusive and definitely unwanted.

Interpretation of NPPF Guidance

In the online *Planning Practice Guidance*, in *Minerals/Assessing environmental impacts from minerals extraction/Noise emissions*, it states in the section **What are the appropriate noise standards for mineral operators for normal operations?**:

Mineral planning authorities should aim to establish a noise limit, through a planning condition, at the noise-sensitive property that does not exceed the background noise level (LA90,1h) by more than 10dB(A) during normal working hours (0700-1900). Where it will be difficult not to exceed the background level by more than 10dB(A) without imposing unreasonable burdens on the mineral operator, the limit set should be as near that level as practicable. In any event, the total noise from the operations should not exceed 55dB(A) LAeq, 1h (free field).

Throughout the applicant's Noise Assessment Report prepared by Walker Beak Mason they argue that noise from the operations need not exceed 55dB(A) LAeq, 1h (free field). This would appear to be a rather free interpretation of the guidance to suit their needs with scant regard for its impact on local communities.

Had the authors of the guidance intended the 55dB(A) level to be the generally acceptable upper noise limit they would not have mentioned the more rigorous '...not exceed the background noise level (LA90,1h) by more than 10dB(A)'. As they did, this is clearly expected to be the norm with the higher 55dB(A) level only acceptable in justifiably exceptional cases.

One can envisage exceptional cases where it would be truly burdensome for the mineral operator not to exceed the background level by more than 10dB(A). For instance on a site where most of the following were true:

- coal needed to be extracted as part of a remediation programme
- very few nearby noise sensitive properties
- restricted area making installation of noise attenuation barriers difficult

- hard reflecting surfaces close by (such as tall buildings) increasing noise levels by up to 3dB(A)

then it might be reasonable to allow some increase of the permitted noise level between background noise level (LA90,1h) + 10dB(A) and 55dB(A) LAeq, 1h (free field).

However in the case of the proposed Hilltop Surface Mining Scheme no such exceptional circumstances exist. The only reason that adhering to the background noise level (LA90,1h) + 10dB(A) would be burdensome is the cost to the mineral operator.

Permitting noise levels to rise by 10dB(A) already means background noise levels would be **twice as loud. Any relaxation of upper noise level constraints on a site surrounded by so many residential properties cannot be justified.**

In an attempt to explain why complying with the permitted maximum daytime noise level for normal working [background noise level (LA90,1h) + 10dB(A)] would be burdensome the report (p21) explains that increasing bund heights would have a negligible affect on noise levels. It also states that increasing bund heights from 3m to 6m could increase the width of the bund footprint on the ground from about 10m to closer to 30m. This would appear to contradict bund details elsewhere in the application. By the same argument, a 5 metre high bund would have a footprint of some 25m. The coal processing area is to be surrounded by 5 metre high bunds which are shown on plans to be less than 10m wide. If they were to be 25m wide there would be no working space left within the bunds! As both scenarios cannot be true, we must conclude that the argument in the WBM Noise Assessment Report is nothing but a contrived attempt to justify not being able to deliver lower noise levels.

A response to the applicant, dated 18 March 2013 from the Environmental Health Officer at North East Derbyshire District Council quoted in the applicant's Noise Assessment Report, states:

If the noise from temporary operations will approach or reach this noise level I would expect the applicant to indicate how long this will go on for on each occasion and specify what if any additional mitigation will be provided during these works such as the use of temporary screens, enclosures or periods of respite along with indicating whether or not such events will be notified in advance to affected residents. It is my experience that where particularly noise operations are anticipated, good communication with residents and genuine engagement often reduced the potential for complaints. Whilst not only relevant for temporary works an effective resident's communication channel is highly recommended throughout the entirety of the project.

We note that the report makes no mention of the use of temporary screens, enclosures or periods of respite or of any intention to notify in advance affected residents. This fact alone means that the report cannot be considered to have adequately addressed possible mitigation measures.

Choice and Suitability of Noise Sensitive Properties

The Noise Assessment Report gives the following reason for the choice of noise sensitive properties:

The dwellings for which baseline measurements have been made were chosen as the nearest in each direction to the site, representative of the housing in each area to the north, west and south of the site.

The only criteria was, therefore, a relatively even distribution of properties around the perimeter of the site with no regard to which will be nearest to the busiest (and therefore noisiest) areas of the site during the three and a half years of operations.

Also the report makes no mention of the number of other noise sensitive properties in similar locations to those chosen. Anyone not familiar with the locality could easily be misled into believing that there are only those few properties chosen as 'noise sensitive properties' in the vicinity of the proposed site.

Detailed analysis by Hilltop Action Group shows that there are 544 residential properties and 2 residential care homes within 200m of the Hilltop site. The adverse affects of noise will be experienced by all these properties, not just the few identified in the applicant's Noise Assessment Report.



38 North Street

Noise monitor conveniently placed behind garden shed resulting in considerable attenuation of noise from direction of site.



31 Ashover Road

Noise monitor conveniently placed against concrete garden fence resulting in considerable attenuation of noise from direction of site.



Woodland Way Substation

Note dense foliage as sample was taken in May 2012 when trees were in full leaf. It is approx. 75m through thick woodland at this point to the open ground of the Hilltop site. At most other locations the tree belt is considerably narrower. Also, at 132m AOD this is one of the lowest points near the Hilltop site hence local topology will attenuate background noise levels making it unrepresentative of nearby locations.

Relevance of planning decisions offered as precedents

Both the Halton Lea Farm Appeal Decision and the George Farm, Denby, Committee Report are quoted and considered by the author of the WBM Noise Assessment Report to be relevant to the Hilltop application.

What he fails to mention, in both cases, is that those sites were NOT surrounded by residential developments.

In the case of Halton Lea the nearby village consists of only about 60 properties. At the George Farm site, Denby Common is the nearest residential area with maybe 100 properties within 500m and two isolated farms and cottages within 200m.

In contrast the Hilltop site has 544 houses and 2 care homes within 200m and a further 684 houses, another care home, 2 schools, 3 children's nurseries, 2 medical centres and numerous community facilities within 500m.

In the two quoted cases, the decisions about permitted noise levels were made with consideration of the number of noise sensitive properties that would be affected.

It cannot be assumed that the same decisions would have been made if those sites were in the centre of densely populated communities as in the case of the Hilltop site. This section of the WBM Noise Assessment Report and the arguments contained in it must therefore be considered irrelevant to this application.

What are acceptable noise levels for this application needs to be made with due consideration to the peculiarities of this site and the adverse affects noise will have on the quality of life of so many people.

Northern haul road at entrance to processing area

The WBM report states:

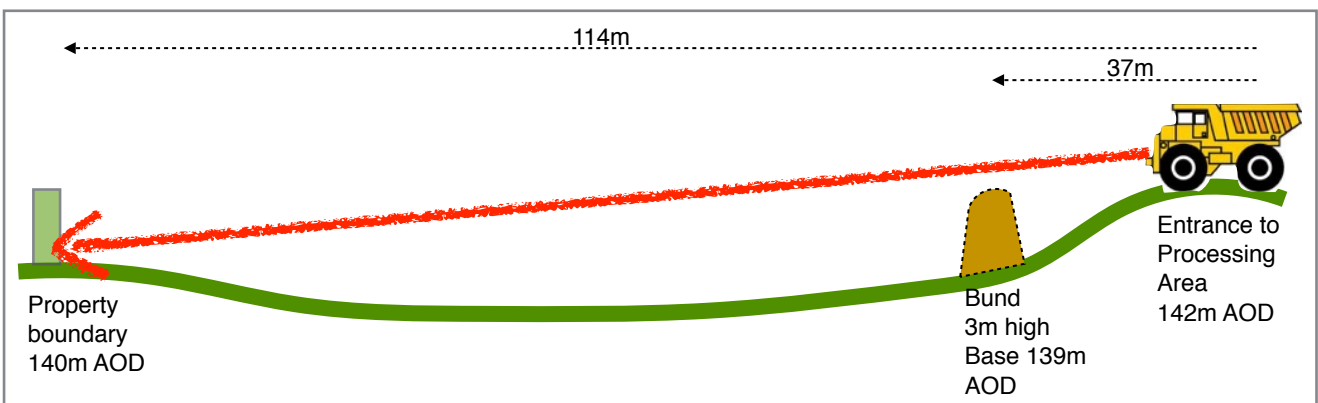
Calculated ‘Daytime’ site noise levels at No. 40 Woodland Way are below the Upper Site Noise Limit of 55 dB LAeq, 1 hour, free field for eleven of the twelve scenarios (see Tables J.5 and J.15), with a highest value of 56 dB LAeq, 1 hour, free field for the uppermost overburden removal in the nearest cut.

Although 40 Woodland Way is about the closest property to the site (approx. 30m) properties higher up Woodland Way are likely to experience even higher noise levels.

No 40 Woodland Way is approx. 175m from the nearest point of the coal processing area, which will be a major noise source throughout the scheme (coal screening and heavy plant movement). The closest properties (Nos 52, 54, 56, 58) will be less than 120m from the coal processing area, with the boundary of No 58 being within 70m.

Further more the topology at this point has not been taken into account. At the point where the northern internal haul road enters the coal processing area the ground level is at or above the top of the noise bund which is supposed to protect residential properties on Woodland Way. The power plants on the dumper trucks and other heavy plant using the haul road will be a further 2m above ground level. Therefore, **the noise bund will have no attenuating affect in this area**. Furthermore, at this point the vehicles will be entering/ leaving the coal processing area via a right angle turn at the top of a long climb parallel to the course of the Ashover Light Railway track. The consequence will be high engine revs and enforced gear changes generating maximum noise levels.

If the noise level is 56 dB LAeq, 1 hour, free field at 40 Woodland Way it will be considerably higher near 53-58 Woodland Way.



Effect of noise on neighbouring communities

The applicant has made little attempt to evaluate or quantify the effect of their predicted noise levels on local communities.

The Planning Practice Guidance, in the section Minerals/Assessing environmental impacts from minerals extraction/Noise emissions, Paragraph 020 under the heading 'How should mineral planning authorities determine the impact of noise?' states:

Mineral planning authorities should take account of the prevailing acoustic environment and in doing so consider whether or not noise from the proposed operations would:

- *give rise to a significant adverse effect;*
- *give rise to an adverse effect; and*
- *enable a good standard of amenity to be achieved.*

In line with the Explanatory Note of the Noise Policy Statement for England, this would include identifying whether the overall effect of the noise exposure would be above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation.

Although this guidance is quoted no further reference is made to it in their report.

Summary of noise exposure hierarchy, based on the likely average response.

Perception	Examples of Outcomes	Increasing Effect Level	Action
Not noticeable	No Effect	No Observed Effect	No specific measures required
Noticeable and not intrusive	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.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Noticeable and very disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

The predicted noise levels generated by the Hilltop scheme will result in extensive and regular changes in behaviour by local residents.

Windows will have to be kept closed regardless of the weather. Since work started on the former Biwater site to the east of the A61 the noise of heavy plant, similar to that to be used on the Hilltop site, has been audible indoors even with double glazed windows closed. For most local residents this noise comes from beyond the Hilltop site where heavy plant will be less than half that distance away - increasing noise levels by more than 6dB(A).

Being outdoors, whether in the garden, on local streets, playing fields or public footpaths will cease to be pleasant. Most residents find that when the farmers are working the land (ploughing, sowing and harvesting crops) the noise levels generated by just one tractor or combine harvester make outdoor activities unpleasant. This happens for only a few days a year and is bearable. Six days a week for three and a half years is another matter.

Many residents (a significant number are retired and therefore at home all day) make extensive use of their gardens in good weather - meals outdoors, gardening and other outdoor hobbies or just sitting and reading. Being unable to enjoy such activities for an extended period of time will cause a significantly diminished quality of life which for some may result in psychological stress.

These adverse effects are certainly in the 'Noticeable and disruptive' category and may even be considered to be 'Noticeable and very disruptive'. In either case they are above the 'Significant Observed Adverse Effect Level'.

Due to the close proximity of so many residential properties, this will affect not just a few people but potentially the lives of over a thousand.

(544 properties x 2.3 (average household) = 1251)

Effect of weather on noise propagation

The WBM Noise Assessment Report makes no mention of the effects of weather on noise propagation.

Wind blowing from a noise source towards a noise sensitive location will increase levels, and the stronger the wind the greater the effect.

Also in temperature inversion conditions unusually high noise levels can be experienced. This is not an uncommon phenomenon in the area of the Hilltop site. Trains running on the mainline, some 1km to the east of the site, are not normally heard from residential properties to the west of the site. However, in temperature inversion conditions it sounds as if trains are running at the bottom of the garden.

In both cases noise levels well above the predicted levels will be experienced by local residents. Neither possibility has been considered by the applicant.

Conclusion

The fact that the Hilltop site is situated at the centre of the communities of Clay Cross, Holmgate, Old Tupton and Tupton means that intrusive noise levels will have an adverse affect on a large number of people.

The WBM Noise Assessment Report clearly shows that the applicant will not be able to carry out this scheme without breaching the noise limit of background noise level (LA90,1h) plus 10dB(A) during normal working hours (0700-1900).

The National Planning Policy Framework states in para 149:

Permission should not be given for the extraction of coal unless the proposal is environmentally acceptable, or can be made so by planning conditions or obligations; or if not, it provides national, local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission.

This planning application by Provectus Remediation Ltd clearly breaches these guidelines as the anticipated noise levels are environmentally unacceptable. Furthermore, no national, local or community benefits have been demonstrated which would clearly outweigh the likely impacts.

On the grounds of unacceptable noise levels alone this application does not justify the grant of planning permission.

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