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Your Reference: 24/06/JRE  
Our Reference: D115146/AIRQ  
Date: 22/02/07

Dear John,

**RE: Air Quality ES Chapter Middleton Lodge Quarry**

The assessment of air quality impacts presented in the ES covers the topics one would expect to see covered for a development of this type and there is an adequate level of detail. The ES does state what information is being presented and with only a few exceptions it also clearly describes how the values presented were arrived at.

I can not fault the overall conclusions of the air quality assessment as, on the basis of the information provided to me, they do not appear to me to be unreasonable. However there are points of detail within the assessment that I would like to draw your attention to and I will discuss each of these in turn in the order in which they occur in the assessment.

Page 7.1, Paragraph 7.1, states that there is no nationally accepted definition of 'dust', however the size fraction of 1 to 75 µm applied in this assessment is used in British Standard BS6069:1994.

On Page 7.2 in Paragraph 7.2 the idea of "nuisance" is raised and a distinction between 'nuisance' and 'severe nuisance' is made, but no mention is made of statutory nuisance nor of the local authorities duties in relation to it.

The ES does not make use of any existing complaints history in it's assessment of the likelihood of severe nuisance being caused. Have there been any complaints for the existing operations and if so were they substantiated by the quarry operator or a local authority officer? It would strengthen the argument presented in the ES if there were only a few complaints.

The main body of the assessment is based on the use of a body of meteorological data for the period 1983 to 1992 from a nearby (approx. 20 km) meteorological station. The site is close enough to be representative of local conditions and the use of a dataset of more than five years is more than would be required by the regulatory authority (local authority or Environment Agency). However, the data presented in Table 7.4, Figure 7.1 and elsewhere is for average conditions during that period. This fact is explained in the text, but it would be easy when reading the related discussion to lose sight of this.

For example, an estimate is made of the number of days when a severe nuisance might be expected to be caused by the combination of dust generating activity and weather conditions. The phrase "could be up to...days" is used. This is a reference to the number of days under the

average conditions during the period 1983 to 1992, it is not an estimate of the maximum number of days based on the worst case conditions during that period.

To continue the above point, the summer of 2006 was unusually hot and dry but even in a year of typical conditions it is likely that most locations will experience at least 2 or 3 consecutive dry days. Therefore the prediction that the most days a receptor could be severely effected by dust is one day or half a day is only meaningful in the context of the average data presented.

Figure 7.1 illustrates the distribution of windspeeds and directions in the form of a windrose. This is a clear diagram, but the use of only two windspeed classes makes it impossible to assess how often windspeeds of almost 5.5 m/s occur. Knowing the proportion of the cases in the range 5.0 to 5.5 m/s for instance would improve the transparency of the assessment.

On Page 7.12, Paragraph 7.6 states the "number of working days coinciding with dry winds affecting the property". The assessment is considering future impacts and it is not possible to be certain what weather will occur on the days that work is scheduled. In fact the assessment is only aiming to provide a feel for likelihood of adverse impacts occurring. A more usual approach to an assessment of this kind is to focus on controlling the generation of dust at source. Such that impacts are minimised and then use the existing complaints history to highlight how successful existing management of the site is. I am unclear as to why this more straightforward approach was not applied in this instance, especially given that a very strong description of proposed dust controls is provided.

On Page 7.12, Paragraph 7.6 it is not clear how it was determined that PM<sub>10</sub> impacts of 2 µg/m<sup>3</sup> would occur at nearby properties. It is unlikely that impacts would be the same at each property. If it has only been assumed that an impact of this magnitude could occur, then no evidence is provided that the impact would not be greater in magnitude than this at the worst effected properties.

On Page 7.13, in Paragraph 7.6 the document LAQM TG(03) is quoted as grounds for rural roads not requiring specific air quality assessment. It should be noted that this DEFRA guidance document (and it's more recent amendments) was produced for the sole purpose of providing a common body of guidance to local authorities, on how to carry out their duty to review and assess ambient air quality within their administrative area, against current air quality objectives set by central government. To the best of my knowledge DEFRA has never recommended the use of this local air quality management technical guidance document as being an appropriate method for undertaking an air quality impact assessment. Unlike the assessments carried out by the local authority, the main issues within the ES are the magnitude of the impact and the significance of the resulting effect. With the exception of a few numerical resources contained within LAQM TG(03) it is not an appropriate point of reference for a study of this type.

As I indicated above I do not believe that had the assessment been carried out differently it would have come to a different conclusion, but there are aspects that could be presented differently to improve transparency. I would also suggest that you request details of the complaints history for the existing operation from the regulator (this is most likely to be the local authority pollution control officer).

If you have any queries, or you require any further details, please do not hesitate to contact me.

Yours Sincerely

for SCOTT WILSON LTD

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