

CC  
10/7 MALS

**Charlotte Cornforth**

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**From:** Paul Hunt  
**Sent:** 07 August 2015 11:14  
**To:** Charlotte Cornforth  
**Subject:** FW: Boort Malt Planning Application Ref. 15/00348/FUL

Dear Charlotte

My comments on this matter are as follows:

Noise

A BS 4142:2014 Noise Assessment was submitted by the applicants. The assessment considered measurements of existing noise levels at the nearest noise sensitive receptors: Station House on Malton Road, which is situated ~ 75m away to the north east; and the closest property on Poplars Lane, which is slightly further away and screened from the proposed development by parts of the existing installation. Measurements were also taken of noise levels 5 metres from the existing roasting plant whilst three of the existing four roasting ovens were in operation. By calculation, the specific noise level predicted to arise at the nearest noise sensitive receptor as a result of the operation of all existing roasters plus the two proposed additional roasters was then determined. The calculated specific noise level at the nearest receptor was 40dB. The calculation was based on attenuation due to the distance between the noise source and the receptor and assumed that there would be no barrier attenuation. A +3dB penalty was added to this giving a rating value of 43dB. This is 3dB below the measured background noise level at the receptor, a result that indicates that the specific noise from the extended roasting plant will have no adverse noise impact.

This assessment may be considered cautious in respect of the fact that in determining the rating level, noise from the existing roasting plant has not been excluded. It's exclusion would result in a lower rating level. However, the calculated rating level does also make an assumption that the two new roasters (and the existing roaster that was not operating when the assessment was undertaken) will have similar sound emission characteristics to the three existing roasters that were operating, thereby resulting in a doubling of sound power. That is the basis on which the measured sound pressure level of 61dBA at 5m from three roasters has been used to predict a level of 64dBA if six roasters (including the proposed two new ones) operated together. (Doubling the sound power results in a 3dB increase in the sound pressure level). This means that there is a degree of uncertainty with regards to the predicted impact.

I recommend the following condition if the application is approved:

*The applicant shall arrange for noise monitoring to be undertaken by a suitably qualified acoustic consultant to check that the noise level arising from the combined impact of the existing four roasters and two new roasters does not exceed the level of 64dB (LAeq15min) 5metres away from the external façade of the building housing the roasters.*

*This monitoring shall be undertaken within 2 months of the completion of commissioning of the new roasters and whilst all six roasters are operating. If the measured level exceeds 64dB(A), the applicant must identify and implement appropriate measures to attenuate noise from the plant so that it does not exceed the predicted level of 64dB (LAeq15min).*

*Reason : To protect the local amenity by preventing an increase in noise levels at noise sensitive properties*

Dust

The proposed new plants incorporate cyclones to capture dust from the roasters and coolers. The applicant has stated that there is a 'small amount of deposition taking place from the roasters' but that this is limited to the roof area close to the flues and emissions are confined to within the site. Furthermore the applicant states that past complaints concerning dust have related to other parts of the plant.

Environmental Health complaints records for the period 2011 to the present date do not show any complaints relating to dust emissions from the installation.

I recommend the following condition if the application is approved:

Emissions to air from the roasting drums and coolers to which this permission relates shall at all times discharge through cyclone arrestment systems so as to minimise emissions of particulate matter. Materials captured by the cyclones shall be transferred via enclosed conveyance systems to secure enclosed storage vessels.

*Reason : To protect the local amenity by minimising emissions of particulate matter.*

### Smoke

Several complaints have been made in recent weeks concerning emissions of smoke from the roasting plant. The production of high coloured malts may give rise to odour and visible smoke. This is because production of darker malts involves subjecting the malt to more heat. These products are currently produced exclusively using one particular roasting drum (No.5). This drum has an afterburner, the purpose of which is to abate emissions of odour and smoke which arise from the process. It should be noted that the smoke emitted through the normal production of high coloured malt is not the result of the malt catching fire (which is not part of the process). Green malt fed into the roasting drum is heated indirectly by hot air blown through the rotating drum. In order to minimise smoke and odour emissions the afterburner must start up in time and attain the required temperature in order to ensure effective oxidation of odorous compounds and smoke. My understanding is that provided the afterburner is operated properly it is effective and smoke and odour emissions are minimal.

Following a recent complaint from a local resident concerning smoke emissions, enquiries were made and the operator confirmed that on 13 July there was a fire in No. 5 roasting drum. Such incidents are not common but if they do occur are usually associated with the production of high coloured malts. To minimise the risk of fire a sensor continuously measures the temperature of the malt. The detection of a high temperature automatically activates the release of water to flood the drum and extinguish the fire. There is also a temperature sensor in the exhaust ductwork taking air from the drum to the afterburner and there are smoke detectors in the roasting house. I understand that the automated extinguisher operated effectively on this occasion and although the fire and rescue emergency services were called out as part of the standard operating procedures, the fire in the roaster was extinguished before they arrived. The incident was caused by a batch of green malt that had become sticky and having adhered to the inside of the drum became overheated.

The other three existing roasting drums are used to produce less coloured malts and are not equipped with afterburners as the potential for smoke and odour emissions is low. The risk of fire is also lower and consequently unlike drum 5, the other drums do not have automated emergency systems to detect and extinguish fires, although they do have product and exhaust temperature sensors which are monitored by the operator.

My understanding is that the demand for high coloured malts is growing significantly and the two proposed new roasters, each of which will be equipped with an afterburner and automated systems to detect and extinguish fires, will be used to increase the capacity to produce these products. The applicant has stated that the afterburners of the new roasters will be more efficient than the one fitted to existing roaster No. 5 and that there will therefore be little or no impact on emissions of smoke and odour if the development is approved.

I recommend the following condition if the application is approved:

*Each of the two roasters to which this permission relates shall be equipped with an afterburner to treat exhaust air from the roasters. The afterburners shall be operated for the appropriate time duration and at appropriate temperatures so as to ensure the effective treatment of exhaust gases thereby preventing or minimising emissions of smoke and odour at all times.*

*Reason : To protect the local amenity by preventing or minimising emissions of odour and smoke.*

Best regards

Paul  
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