

## **Finer by Nature – Comments on Permit Application Supporting information 27/05/22**

I refer to the Permit application to undertake a pet food manufacturing activity at Finer by Nature, Unit 1, Whitestone Business Park, Whitestone, Hereford.

Finer by Nature manufactures natural dog treats and chews, raw pet food, and storage and packaging of dried pet foods.

The dog treat drying process has the potential to be particularly odorous due to the types of products being dried. Herefordshire Council Environmental Health Team has received a number of complaints prior to the application being submitted and number representations and complaints from residents and nearby business in relation to offensive odour from the treat drying process.

Finer By Nature have been required to submit a permit application to operate the business and an Odour Assessment has been prepared by RSK dated March 2022 to support the application.

The assessment detailed the production processes on site, in particular the drying of the dog treats which is the subject of the odour complaints.

During the course of Officers visits and conversations with operator staff and nearby premises it is apparent that a wider range of products were dried historically. However, the permit application has identified those products that Finer by Nature propose to dry.

On a site visit on the 18<sup>th</sup> May 2022 pigs ears were also seen to be on the oven drying racks. Pigs ears are not included in the list of products to be dried in the RSK assessment. These were found to be quite odorous. Further explanation has been given by the operator in relation to the pigs ears. They were deemed to be unfit for use and subsequently disposed of.

The pet manufacturing activity is located on Whitestone industrial estate. There are a number of commercial premises located in close proximity to the activity. Some units are physically adjoining to the pet food manufacture building. There are also a number of residential properties within 150m of the site.

The RSK assessment included taking samples of process exhaust, containing odour from the oven stack for analysis to determine the odour concentrations for the dispersion modelling. A physical sniff test when the drying process was taking place was also conducted as part of the assessment.

It is noted that the assessment was based on a worst case scenario using the chicken hearts as the basis of the assessment. These were considered the most odorous of the materials to be processed. The modelling assessment assumes that the process runs consistently. For each scenario a 30 degree cook, and 90 degree cook have been modelled.

The Odour Assessment reviewed at a number of scenarios and proposed two bench marks of 1.5 or 3 odour units/m<sup>3</sup> to indicate the impact on surrounding premises depending on the sensitivity of the receptor.

## Current Odour Scenario

Figure 3 in the RSK report predicts odour concentrations at 5-10 odour units/m<sup>3</sup> at approximately 4 commercial premises, and between 3 and 1.5 odour units /m<sup>3</sup> at locations where 2 residential properties are situated.

Figure 4 (90 degree C cook) predicts that odour concentration is >10 odour units/m<sup>3</sup> for approximately 7 commercial units. It is understood that the 90 degree C cook occurs for approximately 1 hour as described in the report.

Based on the CIWEM guidance used within the RSK Odour Assessment report, **odours greater than 10 odour units/m<sup>3</sup> - complaints are highly likely and odour exposure at these levels represents an actionable nuisance.** An additional 4 commercial units were located in the 5-10 odour units/m<sup>3</sup> isopleth range and 2 residential units in the 3-5 unit isopleth range.

The Paragraph below is taken from the RSK report,

*'Given the differing odour impact criteria available, the selection of the most appropriate criterion should be determined by the objective of the assessment (whether this be against a standard of avoidance of nuisance or 'significant pollution') and the nature of the odour under assessment. It is, therefore, the view of CIWEM that these and other odour impact criteria should be regarded as indicative guidelines and cannot be applied as over-arching statutory numerical standards. CIWEM considers that the following framework is the most reliable that can be defined on the basis of the limited research undertaken in the UK at the time of writing:*

- C98, 1-hour >10ouE/m<sup>3</sup> - complaints are **highly likely** and odour exposure at these levels represents an actionable nuisance;
- C98, 1-hour >5ouE/m<sup>3</sup> - complaints **may** occur and depending on the sensitivity of the locality and nature of the odour this level may constitute a nuisance;
- C98, 1-hour <3ouE/m<sup>3</sup> complaints are **unlikely to occur** and exposures below this level are unlikely to constitute significant pollution or significant detriment to amenity unless the locality is highly sensitive or the odour highly unpleasant in nature.'

## Sniff test

The 'sniff test' concurred with the findings of the modelling exercise. It identified that during the 90 degree cook that odour intensity ranged from 'very faint' to 'very strong' in two locations close to commercial receptors. The RSK report stated that "Odours at these intensities are likely to result in a significant impact."

Considering the H4 Odour guidance on whether or not odour emissions amount to serious pollution a number of factors need to be considered. The;

- Frequency of detection;
- Intensity as perceived;
- Duration of exposure;
- Offensiveness
- Receptor sensitivity

Whilst the frequency is not every day the cook takes a number of hours/days to complete. It is understood that that the operator has made some effort to cook outside normal working hours to

reduce the impact to the neighbouring premises. This action does assist with reducing the impact it would not fully mitigate the impact to all receptors. Some are residential and therefore present all day. Some businesses operate outside normal working hours i.e. evenings and weekends. It is also apparent from speaking with neighbouring businesses that the odour can accumulate within buildings when they are closed during non-working hours and then on opening up the buildings they need to be ventilated to disperse the odour.

The odour has been described as very unpleasant 'death', 'rotting flesh' 'sewerage' 'disgusting'.

In terms of the receptor sensitivity, whilst the RSK odour report describes the commercial nature of the industrial site as Medium sensitivity, there are a number of activities on site such as hairdressing and beauty treatment businesses that could be described as sensitive. Offensive odours would have an impact on the amenity of these businesses. A number of residential properties are located in the isopleth line ranging from 1.5-5 odour units/m<sup>3</sup>. Approaching 5 odour units/m<sup>3</sup> offensive odours in sensitive locations may result complaints particularly when the odour is offensive and the receptors are sensitive.

Based on the submitted odour assessment prepared by RSK. Together with the number of complaints and representations that have been received by this department. There are significant concerns regarding the continued operation of the drying process due to the odours emitted and the likelihood that it is causing an odour nuisance and loss of amenity to nearby businesses and residential properties.

## **Mitigation Options**

In terms of the permit application, the RSK report has recommended a number of mitigation options to reduce the impact of the odour on the neighbouring locality.

Due to the significant impact identified in the current situation scenario described in the odour assessment. A number of mitigation options were proposed:

- Removal of the cowl/cap from stack
- Increase stack velocity to 15m/s

These options have been modelled and no significant improvement was demonstrated.

In combination with the above mitigation measures, a further mitigation option was to increase the stack height to 19m.

There was no odour dispersion modelling provided for this option. However the height was calculated using a stack height assessment.

There are concerns regarding the practicality and feasibility of this option due to restrictions that might impede this option, i.e. gaining the relevant consents from planning authority and landowner. The application did not comment on whether any additional enquiries have been made regarding relevant consents or technical feasibility of this option. There are also concerns whether this option would achieve the relevant mitigation standards. Further information should be provided to support this mitigation option.

A further mitigation measure proposed was to produce an Odour Management/Response plan (OMP). It is not clear if this would be in combination with the stack height increase or used as a control measure on its own. The OMP should be submitted as part of the application and should

clearly demonstrate the competence and commitment to controlling odour pollution and show an understanding of how the process can give rise to odour pollution and that the capability is present to manage the risk effectively.

There are concerns that an odour response plan on its own would not be effective. This is due to the close proximity of commercial premises and residential properties that are occupied outside non-working hours. An odour management plan maybe more acceptable where the odour is less offensive. The aim of the permit controls is to prevent offensive odours beyond the site boundary.

The option of an abatement on the stack discharge was described as beyond the scope of the odour assessment report. However, this option should be given additional consideration.

In conclusion

The odour assessment reports produced by RSK indicate that the current odour emissions from the drying of products for animal treats is likely to have a significant impact on amenity for commercial and residential properties. The Environmental Health department has received a number of complaints regarding offensive odours from the drying process.

The mitigation options proposed do not currently demonstrate that odour could be adequately controlled, partly due to the close proximity and sensitivity of the receptors, but also in terms of commitment to controlling odour pollution.

Odour controls should result in prevention of offence to human senses and protect the amenity of the surrounding environment.

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