

1. Point source emissions to air

HPA letter dated 13/07/2012	Environment Agency document 'Odour Technical Assessment of Site Suitability'
<p><i>The installation will have the following point source emissions to air:</i></p> <ul style="list-style-type: none"> - <i>Stacks on CHP engines: Emissions of NO_x, CO, SO₂, VOCs and Non-methane VOCs.</i> - <i>Biofilter Stack</i> - <i>Auxiliary flare: Emissions oxides of NO_x and CO</i> - <i>Pressure relief valves: Emissions of Biogas</i> <p><i>The potential impact on air quality has not been considered by the applicant. We recommend that the impact these emissions will have on air quality is assessed appropriately, for example using the Environment Agency H1 Screening methodology to identify whether emissions to air are considered insignificant in the context of local air quality, or whether they warrant further assessment.</i></p> <p><i>Release of bioaerosols is stated to be controlled through the use of biofiltration system or in stack scrubbers. No further detail has been provided. We recommend that the Regulator confirms:</i></p> <ul style="list-style-type: none"> - <i>there are appropriate procedures in place to ensure emissions of bioaerosol to air will not be of concern;</i> - <i>there are appropriate procedures in place to identify failure of the proposed abatement system.</i> - <i>there are appropriate procedures in place in the case of failure of the biofilter/scrubber system</i> 	<p>Executive summary, Page 1:</p> <p><i>Our overall conclusion is that it is unlikely that controls at the site can be implemented to a standard which would prevent significant pollution for nearby residents. Our concerns are strongly influenced by the combination of immediate proximity of residents and significant limitations in site infrastructure.</i></p> <p><i>We recommend engineering confirmation of the emissions values used in the dispersion model. Doubts remain about whether these emissions values are in fact consistently achievable, but as long as they are imposed as an emissions limit value (as recommended) they are enforceable and the operator can be required to operate to these levels.</i></p> <p><i>In the event of a major process failure, we are concerned that immediate neighbours may be in acute danger from episodic releases or explosion risks.</i></p> <p>Receptors, page 6:</p> <p><i>At the time of writing, we have just learned that planning permission has also been granted for 14 new homes to be built in the field adjoining the southern boundary of the site.</i></p> <p>Overview of odour management plan, page 5:</p> <p><i>AQMAU did consider the impact assessment and made their recommendations in a report dated the 6th September 2012 (revised 6 Feb, 2013). The AQMAU report considered the dispersion modelling report of stack emissions and made important qualifications relating to the assumed validity of projected odour concentrations from the stack. Andrew's preliminary reports recommended an engineering confirmation that those emissions values were achievable. Doubts remain about whether these emissions values are in fact consistently achievable, but as long as they are imposed as an emissions limit value (as recommended) they are enforceable and the operator can be required to operate to these levels.</i></p>

The EA comments raise a number of concerns regarding:

- Whether there are appropriate procedures in place to ensure emissions of bioaerosol to air will not be of concern
- Whether emission values used in the dispersion model are achievable
- The close proximity of local receptors to the installation
- Whether there are appropriate procedures in place to identify failure of the proposed abatement system and whether there are appropriate procedures in place in the case of failure of the biofilter/scrubber system

In the light of our previous letter, we are concerned by the EA comments and the possibilities of adverse effects on human health from this plant.

2. Fugitive emissions to air

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<p><i>While the potential for bioaerosol generation has been noted in the risk assessment (medium magnitude of risk for release of bioaerosols), little detail has been provided on mitigation measures in place to ensure the potential for fugitive bioaerosol emissions is not a concern.</i></p> <p><i>We note that there are local people within 250 metres of where the proposed site will be located and we recommend the Regulator confirms that there is no potential for offsite fugitive emissions of bioaerosol be a public health concern for local people. Furthermore, we recommend that the Regulator ensures that there are procedures in place to mitigate the effects of a case of failure of the biofiltration system.</i></p>	<p>Executive summary, page 1: <i>The first assumption is that fugitive emissions can be consistently controlled to a high standard and the second is that the process will always be under control. If either of these two assumptions is not true, then the proximity of receptors magnifies the consequences of any failures.</i></p> <p>Odour impact assessment, page 3: <i>It is clear from stated assumptions in the AQMAU report that fugitive odour sources were not part of the modelled impact assessment. Both stack emissions and fugitive releases will depend heavily on the effectiveness of process controls. While it is appropriate to assume process control for a modelling exercise, the limitations imposed by this assumption must still be recognised.</i></p> <p>Control and abatement measures, page 8: <i>Experience shows that, on their own, buildings rarely function as adequate containment features. In part this is due to short-term fugitive releases from the opening of doors, vehicle unloading etc. The fact that receptors are so close means that even if the proposed containment features operated perfectly there is still likely to be significant odour pollution at the nearest receptors due to transient emissions. It is unlikely that there are any measures that could consistently mitigate these impacts at such a short distance</i></p> <p>Receptors, page 6: <i>Although the OMP does identify a dwelling in very close proximity in a table of receptors, it is not</i></p>

	<p><i>shown on the plan in the OMP. Investigation showed that this property is neither shown on Agency mapping systems nor Google Street View. The recent photos below show that the property is within a few metres of the southern boundary of the site. It is also within 100 metres of the waste reception hall. Furthermore, we understand that planning permission has just been granted for 14 houses in a field adjoining the site.</i></p>
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Due to the close proximity of receptors and based on the EA comments we express our concern that there is the potential for public health concerns associated with fugitive emissions from the installation.

3. Nuisance Issues

<p>HPA letter dated 13/07/2012</p>	<p>Environment Agency document ‘Odour Technical Assessment of Site Suitability’</p>
<p><i>These sites occasionally present odour, dust and noise problems. We recommend that the Environment Agency alert local public health of any health based nuisance complaints received about this installation if received. We are satisfied that the issue of noise will be appropriately assessed by the Environment Agency and local authority.</i></p> <p><i>We recommend that consideration should be given to the location of the proposed transfer station within the site. This has the potential to be a source of odour and noise nuisance, and is currently stated to be located close to the site boundary on the southern side and near to current housing. Consideration should be given to the most appropriate location.</i></p>	<p>Page 4, paragraph 4</p> <p><i>The peak levels of odorous emissions will be largely governed by the odour potential of air behind containment features which are temporarily removed (doors opened) or that of materials which are disturbed (digestate loading). Given that AD sites handle many materials which rapidly putrefy, have high protein levels and high energy levels, it is a valid generalisation to say that these facilities receive, hold, process and produce highly odorous materials. Any short term fugitive releases can have devastating amenity impacts on nearby receptors” and “As with all waste management facilities, good management practices can mitigate this underlying odour potential to a degree. However, the mitigation opportunities for high risk materials, such as raw meat, in this context are limited.</i></p>

Due to the close proximity of receptors and based on the EA comments we express our concern regarding whether there will be appropriate procedures in place to ensure odour nuisance is not an issue at the installation.

Conclusions for local health issues

We previously noted that, "Provided the site and installations are well managed and maintained and the relevant environmental legislation and environmental permitting sector guidance notes are complied with as necessary, there should be no cause for public health concern in the running of the operation."

The Environment Agency's Odour Technical Assessment highlights concerns around these points, in particular associated with the suitability of abatement mechanisms at the installation, the potential for fugitive emissions, the close proximity of current and future residential receptors, including the recently granted planning application for housing at the nearby site (in the triangle between the plant, Twemlow Lane and Goostrey Lane) which we noted in our previous letter could be sterilised by this development, and whether there are procedures in place to identify failure of the proposed abatement system.

Based on the information within the Environment Agency Odour Technical Assessment, we cannot now conclude that the installation does not present a cause for public health concern.

Please do not hesitate to get in contact with us if you require any clarification on any of the points raised in this letter.

Yours sincerely

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Consultant in Health Protection