

**Document reference: ECGE B2.10**

**PROCESSING OF ANIMAL BY-PRODUCTS TO PRODUCE  
TALLOW AND MEAT AND BONE MEAL BY HEATING AND  
CENTRIFUGAL EXTRACTION**

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**MONITORING OF EMISSIONS**

**January 2017**

**OUR REF: 15/2949/ippc**

## **1 EMISSIONS**

1.1 The following potential emissions have been identified:

- odour
- combustion
- noise

## **2 ODOUR**

2.1 The points and areas sources of potential odour are identified in Document B2.2.

2.2 **Monitoring** is undertaken by olfactory assessment. An Odour Management Plan (OMP) is in place at the adjoining knackery, Intermediate Plant and carcass incinerator, and a plan as a result of a planning condition for the construction of the Installation building and its use has been approved by the Local Planning Authority. The detailed approach and methodology for the monitoring of odour at the Installation is given in the Environmental Management Plan This can be summarised as:

- Dailey assessment by a trained operative(s) who is neither sensitised nor inured to malodour
- Assessment taken initially within 1zz hour of processing operations commencing and at regular interval thereafter
- Olfactory assessment at determined points on boundary of Installation
- Assessment to characterise odour and identify potential source
- Determine potential action to rectify identified malodour if perceived
- Record keeping of above

2.3 Separate monitoring of odour from the adjoining knackery, etc, site is undertaken in accordance with the site's OMP. The Installation activity has not commenced and no monitoring has, therefore, been undertaken. Odour from the unabated and

only partially enclosed operation of a trial rig has been observed by a wide range of people, both professionally trained in odour assessment and lay persons. No highly objectionable odours were noted by any observers. It is anticipated that the level of malodours from the wider site at Flagg will be reduced in part due to the cessation of the bulking up of animal carcasses and by-products in a trailer at the front of the site at Flagg awaiting despatch to a rendering plant; Document B4.1.

### **3 COMBUSTION GASES**

3.1 There is a single source of combustion gases, the electricity generating set which provides energy to heat water to create steam for use in the process as well as generating electricity. Emissions from the generating set are either emitted direct via the chimney or via the heat exchange boiler. The electricity generating set is a Directly Associated Activity.

3.2 Combustion gases are tested as part of the installation and commissioning of the generating set for any particular fuel. Details of a commissioning test for the same type and model of generating set using animal oil (tallow) as a fuel are presented in the Appendix – ECGE B2.10 Append A. The characteristics of the combustion gases from burning tallow are:

- CO - 0.02 % VOL
- HC - 2 ppm VOL
- NO<sub>x</sub> - 329 ppm VOL
- CO<sub>2</sub> - 6.2 % VOL
- O<sub>2</sub> - 12.1 % VOL
- SO<sub>x</sub> - 1 ppm VOL

3.3 No further monitoring apart from regular visual assessment on (the infrequent) start-up of the generating set and at regular though infrequent intervals is expected or proposed. The combustion activity is low level using a low sulphur “clean”

biomass fuel and emissions are well within the national and EU standards as illustrated in Appendix A.

#### **4 NOISE**

- 4.1 No noise monitoring of the Installation activity has been taken as the process has not commenced. The operation of the trial rig with unabated noise and only partial enclosure has been observed by a wide range of people, both professionally trained in noise assessment and lay persons; it was observed that the noise emitted was markedly reduced by the barriers of buildings, when receptors stood in such a location relative to the trial rig, and in any event the noise from the rig was masked by the noise of general activity and vehicle movements in the knackery, etc, site.
- 4.2 A full noise survey of ambient noise and noise generated from the wider knackery site has been undertaken – Document B2.9 Append A – and was presented as part of the planning application. Each significant item of equipment of the Installation activity was assessed and the potential noise from the operational Installation site was modelled and noise levels at the two closest sensitive receptors was predicted. With the proposed attenuation to the building and specific plant it is predicted that noise levels from the Installation activity will be considerably lower than existing levels and well within the WHO daytime and night-time guide levels to avoid annoyance of receptors.
- 4.3 No further monitoring is anticipated. However, good working practices will be employed to reduce potential noise including, for example, self-closing personnel doors, ensuring that main vehicular access doors are only open when necessary for access and maintenance of equipment which would otherwise generating tonal, and potentially annoying, noise.