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April 20th, 2023

**Environmental Licensing Programme
Office of Environmental Sustainability
Environmental Protection Agency
Johnstown Castle
Co Wexford**

Our ref: 1006_15
Re: Dawn Meats Ireland Unlimited Company
Hazel Hill, Ballyhaunis, Mayo.
IE Licence Reg. No. P0048-03
Request for Technical Amendment

Dear Sir/Madam,

Dawn Meats Ireland UC request a Technical Amendment (TA) to Industrial Emissions Licence Reg. No. P0048-03 for their site at Hazel Hill, Ballyhaunis, Co. Mayo under Section 96(1) of the Environmental Protection Agency Acts, 1992 (as amended).

The request for Technical Amendment arises from Dawn Meats intention to utilise an alternative solid fuel type on site to the biomass permitted under Condition 5.9 (Amended by Technical Amendment A (09 May 2014)) as follows:

Condition 5.9 The fuel used for the on-site boilers shall be either low sulphur fuel oil (<1%), natural gas and/or tallow oil and biomass. A record of the fuel being used shall be maintained.

Condition 5.9 limits the fuel selection on site to natural gas, tallow oil and biomass. The company wish to amend Condition 5.9 to allow for the use of meat and bone meal (MBM) as an additional solid fuel source for use on site.

The proposed rewording of Condition 5.9 is as follows:

Condition 5.9 The fuel used for the on-site boilers shall be either low sulphur fuel oil (<1%), natural gas, tallow oil, biomass and MBM. A record of the fuel being used shall be maintained.

There is no other change proposed or required to the licence to facilitate the use of MBM.

Background

The proposal relates to a change in the primary fuel used at the Dawn Meats Western Proteins Rendering facility from heavy fuel oil (HFO) to meat and bone meal (MBM) and represents a significant demonstration of the company's commitment to moving to carbon neutral fuel sources.

Anfield House
Baldonnell Bus. Park
Dublin 22
D22 N2N4

Osborne Promenade
Warrenpoint
Newry
Co. Down,
BT34 3NQ

MBM has traditionally been disposed of as a waste, however owing to its significant calorific value, its use as a fuel has been the subject of much research and development over the past decade and on 2 June 2020, the European Commission issued Regulation 735 of 2020 to facilitate the use of MBM as a fuel for combustion. This has followed on the back of development of suitable technology for using MBM in combustion and in recent years, biomass power stations have taken the use of MBM further as a source of alternative fuel and renewable energy.

Dawn Meats obtained planning permission on 17 July 2013 (Planning Ref 1370) for the construction of a new utilities building incorporating a carbon neutral biomass boiler, baghouse abatement system and associated infrastructure at the Hazel Hill facility in Ballyhaunis Co. Mayo (Refer to **Attachment A**: Drawing 13-418-202 – Utilities Building Site Layout)

The proposal involved the connection of the boiler to an existing 28m high boiler stack (Ref A1-1) and the site IE Licence Reg No. P0048-03 was subsequently amended under **Technical Amendment A** (9 May 2014) to accommodate the boiler. The Technical Amendment request was supported by Air Dispersion Modelling (ADM) which was run under continuous operational conditions at maximum volumetric flow and ELV and confirmed that the change to a solid fuel at that time was not significant in terms of emissions to atmosphere (**Attachment B**).

The current proposal relates to the use of MBM as a fuel, instead of the biomass originally proposed. This is the only change requested – i.e., amend Condition 5.9 to specify MBM - as emissions will discharge via existing stack A1-1 and will comply fully with the existing ELVs as set out in Schedule B.1 of P0048-03.

Dawn Meats intent to utilise a fluidised bed combustion (FBC) furnace connected to a heat exchanger that generates steam (boiler). The boiler will be based around a 5MW FBC and will generate 7.5 tonnes of steam per hour at 11bar. The unit will use approximately 3 tonnes of MBM per hour with a flue gas path that ensures compliance with current stringent legislative requirements of minimum temperature of 850°C with a 2 second residence time (DAFM Approval has been obtained for the intended use of the material (**Attachment C**)).

Abatement of particulate emissions is provided by a reverse jet pulsing bag filter system that ensures effective particulate capture maintaining emission limit values (ELVs) of less than 10mg/Nm³, significantly lower than the current 50mg/Nm³ ELV on A1-1.

The system will be housed entirely in the utilities building granted permission in 2013 under May Co. Council PL Ref 1370, with combustion gasses exhausted post abatement via the existing 28m A1-1 stack subject to the current maximum operational ELV's specified in Schedule B.1 of P0048-03. No change to Schedule B.1 is proposed or required due to the change in solid fuel source.

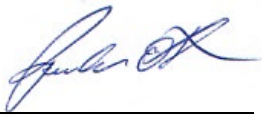
Materials Handling

Materials handling procedures have been developed by Dawn Meats over the past 20 years and site management and handling of ABP material will conform in full with the requirements of the ABP Regulations. requirements. Material will be transported in closed containers and off loaded to fuel supply bins internally within the utilities building, which will be maintained under negative pressure.

Furthermore, the company have developed and installed effective working systems for abatement and control capable of maintaining negative pressure and odour control in a successful manner at the Ballyhaunis site. The utilities building will be maintained under negative pressure, with evacuated air from the building ducted directly to the adjacent biofilter, in accordance with Condition 3.6 of the site IE Licence. The company can confirm that all other Conditions of the licence will be complied with, in particular those relevant to the proposed use of ABP including Condition 3.14 – 3.17 (re close fitting doors, drainage, air lock systems), Condition 6.19 (test programme to confirm negative pressure in buildings where ABP handled and stored) and Condition 8.21 (storage and transport of ABP).

I trust that the above information is adequate to enable a proper assessment of our request and please do not hesitate to contact me should you require any further information in respect of the above.

Yours sincerely,



Peadar O'Loughlin
Managing Director

Attached **Drawings**
 ADM Report
 DAFM Authorisation

Attachment A

Drawings

Attachment B

Air Dispersion Modelling Report

Attachment C

DAFM Approval
