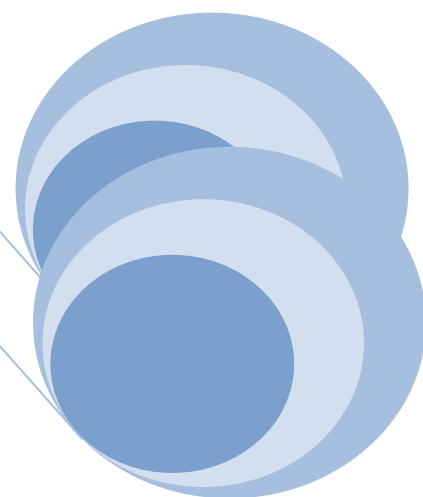


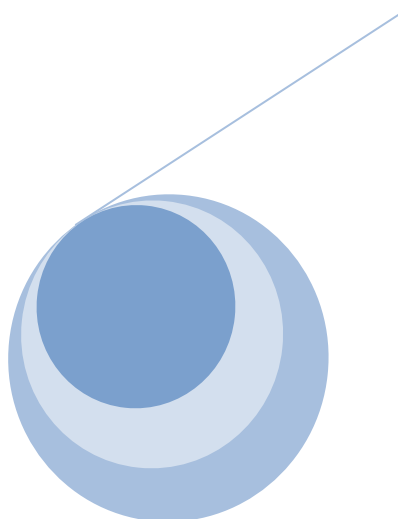


## CONDITIONS FOR APPROVAL OF A COMBUSTION PLANT (CATEGORY 1 MEAT AND BONEMEAL (MBM))



### GOVERNING EU AND NATIONAL LEGISLATION:

The European Union (Animal By-Products) Regulation 2014 (S.I. No. 187 of 2014) and in accordance with Regulation (EC) No. 1069 of 2009 and Regulation (EU) No. 142 of 2011.



**Issued 6 April 2023**  
**Milk & Meat Hygiene/ABP/TSE Division**

**CONDITIONS FOR APPROVAL OF A COMBUSTION PLANT (CATEGORY 1 MEAT AND BONEMEAL (MBM))**

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## **GLOSSARY OF TERMS**

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### **A**

‘**Animal By-Products**’ (ABP) means entire bodies or parts of animals, products of animal origin or other products obtained from animals, which are not intended for human consumption, including oocytes, embryos and semen.

### **B**

‘**Batch**’ means a unit of production produced in a single plant using uniform production parameters, such as the origin of the materials, or a number of such units, when produced in continuous order in a single plant and stored together as a shipping unit;

### **D**

‘**DAFM**’ means the Department of Agriculture, Food and the Marine;

‘**Derived products**’ means products obtained from one or more treatments, transformations or steps of processing of animal by-products;

### **E**

‘**Establishment**’ or ‘**plant**’ means any place where any operation involving the handling of animal by-products or derived products is carried out, other than a fishing vessel;

‘**EU**’ means the European Union.

### **M**

‘**Meat-and-bone meal**’ means animal protein derived from the processing of Category 1 or Category 2 materials in accordance with one of the processing methods set out in Chapter III of Annex IV to Regulation (EU) No. 142/2011.

### **O**

‘**Operator**’ means the natural or legal persons having an animal by-product or derived product under their actual control, including carriers, traders and users.

## **SECTION 1**

### **GENERAL INFORMATION AND REQUIREMENTS**

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#### **1.1 GENERAL INFORMATION AND REQUIREMENTS**

- A plant involved in the combustion of Animal By-Products (ABPs) or derived products must be approved by the Department of Agriculture, Food and the Marine (DAFM) in accordance with Article 24 (1) (d) of Regulation (EC) No. 1069/2009 and the approval must be in date.
- The operator must abide by all relevant requirements detailed in national legislation European Union (Animal By-Products) Regulations 2014 (S.I. No. 187 of 2014), Regulation (EC) No. 1069/2009 and Regulation (EU) No. 142/2011.
- In accordance with Article 6 point 6 of Regulation (EU) No. 142/2011 the operator must comply with the general conditions and specific requirements set out in Chapters IV and V of Annex III respectively.
- The plant operator must notify DAFM immediately if he/she seeks to make any significant change in plant activities, plant personnel or if the plant ceases to combust or store ABPs.
- The operator must notify DAFM immediately if the plant is no longer to be used for the storage of MBM. The plant must be fully decommissioned at this time and the plant operator will receive confirmation of decommissioning in writing from DAFM prior to use for any other activity. The operator will organise the decommissioning of the plant and clean up of the site and buildings as well as safe disposal of all equipment in a reasonable period, under the direction of DAFM.
- All records required in the context of the ABP regulations must be retained in the plant's office for a period of three years. Records must be made available for inspection by DAFM staff. Records may not be stored in a dwelling house.

## **SECTION 2**

### **HAZARD ANALYSIS AND CRITICAL CONTROL POINTS (HACCP)**

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#### **2.1 HAZARD ANALYSIS AND CRITICAL CONTROL POINTS (HACCP)**

- It is the responsibility of the plant operator to ensure a system of checks, based on HACCP principles as well as plant Pre-Requisite Programmes (PRPs) are in place, implemented and maintained.
- a) **HACCP Team**

Plant HACCP plans must be devised by plant staff members. The lead person must be nominated and must have attended a recognised HACCP training course.
- b) **Product Description and Disposal**

The product should be fully described, including relevant information such as the composition, transformation parameters, instructions for disposal.
- c) **Process Details**

The process should be fully described from the time the ABP/Derived product enters the plant until combustion process. Additional relevant information such as a plan of the premises, equipment information, transformation parameters, feedstock flows including potential cross-contamination, clean/dirty area segregation etc may be included.
- d) **Flow Program**
  - All operational steps in the process should be presented in a detailed flow diagram. The diagram should include return loops if necessary.
  - The flow diagram should accurately reflect what is happening on the ground in the plant
- e) **HACCP Training**

Plant personnel must have received training in relation to PRPs and HACCP relevant to their work activity. In particular, plant personnel should be aware of the hazards identified, the critical points, the corrective measures, the preventive measures and documentation procedures relevant to their work activity. A training record must be maintained.
- f) **HACCP Review**

The HACCP plan should be reviewed on an annual basis and a record of the review maintained. The HACCP should also be reviewed at other times for other reasons, for example:

  - where there are operational changes such as any modification made to the product, process or any stage of production, transformation, pasteurisation, storage or distribution,
  - where there is a change to the legislation or approval conditions
  - where new knowledge is acquired
  - as a result of verification activities

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### **g) HACCP Analysis**

The hazard which will be addressed in the HACCP must be identified i.e. biological hazard for the purposes of the ABP legislation.

- The biological hazards associated with each process step should be listed.
- A hazard analysis should be conducted to identify which hazards are necessary to control. The following should be taken into consideration:
  - the likelihood of occurrence of the hazards and severity of effects
  - how the hazard arises
- The control measures which will eliminate, prevent or reduce the hazards to acceptable levels should be described.

### **h) CCP Designation**

Critical Control Points (CCPs) must be determined at the step or steps at which control is essential to prevent or eliminate a hazard or reduce it to acceptable levels. An indication of how the CCPs were determined should be documented e.g. by using the decision tree.

### **i) CCP Critical Limits**

Critical limits must be established at the CCPs, which separate acceptability from unacceptability for the prevention, elimination or reduction of identified hazards. The critical limits should be measurable or observable and set on the control measure.

### **j) CCP Monitoring System**

There must be effective monitoring procedures established and implemented at the CCPs to ensure compliance with specified critical limits (who, when, what, how, where, records).

### **k) CCP Corrective Action Plan**

There must be a corrective action plan when monitoring indicates that a CCP is not under control. The person responsible should be identified, and the plan should include detail of how the non-compliance will be dealt with including past, present and future actions. Records of actions taken must be maintained.

### **l) Verification Procedures**

The methods, procedures, tests or evaluations (additional to monitoring) to be used for determining if the HACCP is working correctly should be specified. Routine verification procedures should be scheduled, carried out at an appropriate frequency, by appropriately skilled staff (other than the monitoring staff or staff responsible for the corrective actions) and should be documented. Verification procedures could also be initiated by change or other findings.

### **m) HACCP Documentation**

- There should be **documentation** which demonstrates the effective application of the HACCP plan, e.g. the HACCP plan itself, procedures/work instructions, monitoring records, corrective action records, verification activity records, training records, HACCP team meeting records, review records etc.
- Records must be accurate and must be signed off and dated by the person carrying out the particular activity at the time the activity was completed. All documentation must be accessible to DAFM and must be kept for a minimum of three years.

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**n) Plant Pre-Requisite Programmes**

Plant PRPs must include the following:

- Intake procedures
- Cleaning and hygiene procedures
- Vermin and pest control procedures
- Installation and equipment procedures

## **SECTION 3**

### **BIOSECURITY, PLANT STRUCTURE, HYGIENE AND TRANSPORT**

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#### **3.1 PERIMETER**

- The plant must be physically separate from all other premises including the farm premises in the case of plants on farms, and surrounded on all sides by a permanent and effective 1.8 metre animal-proof close-meshed fence, with a 1.8 metre lockable gate at the entrance to the plant.
- Additional entrances/exits anywhere from a plant to surrounding land/premises are not permitted unless otherwise agreed by DAFM.
- Fencing and gates must be adequately maintained.
- When the plant is located adjacent to premises or land where farmed animals are kept or have access a double fence system must be in place to prevent access.
- In addition:

The access route from the public road to the plant must be laid out in a manner that ensures no contact between farmed animals and the access route, for example by means of stock-proof fencing, impenetrable ditch, river/drain which cannot be traversed etc. Where stock proof fencing is used, this must comprise of sheep wire with a single strand of barbed wire on top as a minimum, or equivalent. In plants located on or adjacent to premises or land where farmed animals are kept, the access route must not pass through farmyards or areas where animals, animal feed and or animal bedding are housed or stored.
- Assessment of other equivalent separation and biosecurity measures shall be made on a risk basis for individual plants. Such situations will be assessed on a case-by-case basis. The separation and biosecurity measures agreed at the time of plant approval can be found in the plant approval file.
- Animals including farmed and pet animals and poultry must not have access to the plant.

#### **3.2 BUILDINGS/STRUCTURAL**

- The plant must have a fully enclosed building/s for the delivery of ABPs with the following exceptions, subject to compliance with environmental rules:
  - Category 1 tallow may be received into fully enclosed tanks that are not within the reception building but that are located in a designated area, provided the Category 1 tallow is delivered into those tanks by means of closed pipes or an equivalent system and the tallow is pumped from those tanks into the combustion building again using closed pipes or an equivalent system.
  - MBM may be received in a designated area that is required to be enclosed.

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- In such cases, the designated areas must be designed in such a way as to allow easy and adequate cleaning and disinfection of the delivery area and delivery vehicle and to allow collection and containment of any spillages as well as all wastewater generated.
- The plant must have an enclosed building for the combustion of MBM/Category 1 tallow.
- In the case of on-farm plants, manure derived from animals on the same farm as the biogas plant is located, should where possible, be transported by pipeline from the place where the manure is stored on the farm to the plant in order to avoid disease risks associated with vehicles returning from the Plant to the farm. Where this is not possible, thorough cleaning and disinfection of the manure/milk delivery vehicles must take place before returning to the farm. Assessment of other equivalent delivery methods shall be made on a risk basis for individual plants. Where equivalent delivery methods were agreed at the time of plant approval, these can be found in the plant approval file.
- The walls and floors of the intake/ combustion building/s must be smooth and capable of being cleaned and disinfected.
- Floors must be designed and laid in such a way to ensure adequate drainage of fluids and ease of cleaning and disinfection.
- The plant must have personnel changing and washing facilities.
- Office facilities must be available at or adjacent to the plant.
- The plant must have a designated vehicle/container cleaning area, which must be located indoors within the intake building, or externally in close proximity to the intake building exit door. This designated area must contain facilities for the cleaning and disinfection of wheels. These facilities may either be a wheel-wash, or a power washer. In general disinfectants must be used although saturated steam cleaning may be used as an alternative.

### **3.3 PLANT HYGIENE**

- The plant must have cleaning and hygiene procedures in place which must be documented and implemented and which includes the following;
  - Procedures and schedule for the inspection and cleaning of the reception building, ABP delivery vehicles/receptacles and plant equipment/machinery/vehicles
  - Procedures and schedule for maintenance and use of wheel washes and footbaths
  - Personnel procedures (e.g. the removal of work clothes prior to leaving the plant, use of footbaths etc)
  - Equipment required
  - Record keeping procedures
- Cleaning and disinfection procedures must also be in place for areas contaminated by material
- The plant and any vehicles, machinery or equipment used in the plant must be maintained in a hygienic state. In particular, contamination of the external environment with ABPs must be prevented. In the event of spillage, the material must be removed and cleaning and disinfection must be carried out.

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- Footbaths and permanent wheel wash facilities using disinfectant must be replenished and changed as required to ensure disinfection efficacy.
- Cleaning and hygiene records must be maintained.

### **3.4 PERSONNEL AND WORKFLOWS**

- The plant must have adequate boot washes and footbaths at least located at all entrances/exits to the reception, pasteurisation and storage buildings.
- The plant must have effective footbaths between clean and dirty areas.
- Boot washes, footbaths and hand-washing facilities must be used by operatives.
- All operatives on site must wear plant dedicated clothing and footwear, which is clearly identifiable and is removed before leaving the plant.

### **3.5 PLANT VEHICLES AND EQUIPMENT AND MOVEMENTS**

- Measures must be taken to prevent the re-contamination of material that has been pasteurised via personnel, machinery, vehicles and equipment. Ideally, separate machinery, vehicles and equipment should be used in the clean and dirty areas. However, where the operator decides to use shared machinery/equipment/vehicles, there must be thorough and effective cleaning and disinfection of same before movement between areas and this must be recorded.
- Measures must be taken so as to ensure that vehicles, machinery and/or equipment used in a plant do not present a risk with regard to disease transmission to animals or humans e.g. plant machinery must not be used of handling animal feedingstuffs or bedding material and must not enter any place where animals are kept.

### **3.6 PESTS AND BIRDS**

- The plant must have a documented pest control program (insects, rodents and birds) in place which includes the following:
  - a bait map
  - a service schedule for bait points
  - service records for bait points
  - clearly and visibly numbered bait points
- The doors to the reception building must be kept closed at all times other than during feedstock delivery or when other essential tasks require the doors to be open.

### **3.7 ABP TRANSPORT AND SIGNAGE**

#### **Transport of MBM/Category 1 Tallow to the Combustion Plant**

- Combustion plant operators using plant dedicated vehicles must register with DAFM as an ABP haulier. Such vehicles must be labelled with a designated haulier registration code. This requirement will apply to delivery vehicles also.
- All ABP must be transported in sealed new packaging or in covered leak-proof containers or receptacles.
- Plant vehicles and containers used by the plant for transporting ABP feedstocks to the plant shall be maintained in a clean condition.
- Plant re-usable containers used by the plant for the collection of ABPs must be dedicated to the transport of one category of ABP e.g. Category 1 or Category 2 material.
- Containers, receptacles and vehicles used for transporting MBM to the combustion plant (both plant vehicles and other vehicles) must be cleaned, washed and disinfected both internally and externally after each use in the plant's designated vehicle/receptacle cleaning area. The wastewater must be collected and disposed of in accordance with union legislation. Containers or receptacles used to transport rendered fats to the combustion plant may be cleaned and disinfected at the plant of loading.
- In the case of manually operated cleaning and disinfection facilities for containers/receptacles/vehicles, the cleaning procedures once completed must be signed off by the operator.

#### **Transport of MBM/Category 1 Tallow from the Rendering Plant**

- Plant vehicles used to transport MBM /Category 1 tallow must be maintained in a clean condition.
- Plant vehicles or containers used to transport **bulk** MBM/Category 1 tallow must have a permanent, visible and legible label on both sides of the container, that includes the haulier registration number and a unique receptacle number.
- EU legislation stipulates that in the case of vehicles transporting **bulk** MBM/Category 1 tallow, the signage must also contain the following wording:

**CATEGORY 1 ABP: For Disposal Only**

## **SECTION 4**

### **INTAKE**

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#### **4.1 INTAKE**

##### **Raw Material Intake Procedures**

- It is the responsibility of the operator to ensure that MBM/Category 1 tallow received at the plant is in compliance with the conditions attached to the Plant's approval. **A plant may only accept those ABPs or derived products detailed in the conditions attached to the plant's certificate of approval.**
- Waste or any other material not directly used in the plant cannot be accepted or stored at the plant unless otherwise agreed by DAFM.
- The operator must carry out visual checks of incoming material to ensure compliance with the conditions attached to his/her approval and maintain a record of such checks.
- The MBM/Category 1 tallow intended to be used as a fuel must be utilised for that purpose as soon as possible or in exceptional circumstances safely stored until used. The animal by-products and derived products that are not used for combustion as soon as possible must be stored in a closed and covered dedicated area, or in covered and leak proof containers.

##### **Documentation (except HACCP)**

###### **Intake Procedure**

- The plant must have a documented intake procedure which includes the following:
  - a) List of acceptable intake material
  - b) Completion of MBM/Category 1 tallow acceptance forms.
  - c) Documentary checks of commercial documents and intake dockets.
  - d) Physical checks of incoming material.
  - e) Maintenance of intake log.
  - f) Procedures for dealing with non-compliant intake material received
  - g) Verification procedures
  - h) Record keeping procedures
  - i) Batch traceability system

###### **Commercial Documents**

- Each consignment must be accompanied by two copies of a fully completed commercial document. Commercial documents must be completed by the rendering plant operator.

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- The plant must retain one copy of the commercial document on the file at the plant. The second copy must be signed, dated and returned to the feedstock supplier to verify delivery.
- The operator must carry out documentary checks of commercial documents and intake dockets to ensure compliance with the conditions attached to his/her approval.

### **Intake Log**

- An intake log must be maintained in date order for all consignments of MBM/Category 1 tallow delivered to the plant. These records must contain the following information:
  - a) Date of receipt
  - b) Quantity
  - c) Description, and category in the case of ABP feedstock
  - d) Place of origin of the material
  - e) Commercial document or intake docket number

### **Batch Traceability**

- The plant should have a batch traceability system that allows material to be traced from intake to combustion.
- All records must be accessible to DAFM and must be kept for a minimum of three years.

### **Combustion Process**

- The combustion plant technology must be operated in a way that ensures that the animal by products and derived products are treated for at least 2 seconds at a temperature of 850 degrees Celsius or for at least 0.2 seconds at a temperature of 1100 degrees Celsius.
- The gas resulting from the process must be raised in a homogenous fashion for 2 seconds at a temperature of 850 degrees Celsius or 0.2 seconds at a temperature of 1100 degrees Celsius.
- Temperature must be measured near the inner wall or at a point indicated by the technology provider as a point that ensures the parameters in bullet points 1 and 2 above in this Section are met. Automated techniques should be used to monitor the parameters and thermographs recorded to ensure records can be demonstrated when requested by DAFM personnel. Valid in-date calibration certs for temperature probes must be available to demonstrate to DAFM personnel when requested.
- The operator must ensure that the animal by products and derived products are combusted in a way that ensures that the total organic carbon content of the slags and bottom ashes is less than 3 % or their loss on ignition is less than 5% of the dry weight of the material.

### **Combustion Residues**

- Combustion residues must be minimised in both quantity and harmfulness. Residues must be recovered, or where this is not appropriate, they should be disposed of or used in accordance with relevant union legislation.
- Dry residues, including dust, must be immediately stored or transported in closed containers or in another way that prevents environmental contamination.

## **CONTACT DETAILS**

For further information contact:

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