

*Status: Point in time view as at 31/01/2020.*

*Changes to legislation: There are currently no known outstanding effects for the  
Commission Regulation (EU) No 142/2011, ANNEX III. (See end of Document for details)*

## [<sup>F1</sup>ANNEX III

### DISPOSAL, RECOVERY AND USE AS A FUEL]

#### Textual Amendments

- F1** Substituted by [Commission Regulation \(EU\) No 592/2014 of 3 June 2014 amending Regulation \(EU\) No 142/2011 as regards the use of animal by-products and derived products as a fuel in combustion plants \(Text with EEA relevance\).](#)

## CHAPTER I

### GENERAL REQUIREMENTS FOR INCINERATION AND CO-INCINERATION

#### Section 1

##### General conditions

1. Operators of incineration and co-incineration plants referred to in Article 6(1)(b) of this Regulation shall ensure that the following hygiene conditions are met in the plants under their control:
  - (a) Animal by-products and derived products must be disposed of as soon as possible after arrival, in accordance with conditions laid down by the competent authority. They shall be stored properly until disposal, in accordance with conditions laid down by the competent authority.
  - (b) Plants must have appropriate arrangements for the cleaning and disinfection of containers and vehicles in place, in particular in a designated area from which wastewater is disposed of in accordance with Union legislation, to avoid risks of contamination.
  - (c) Plants must be located on a well-drained hardstanding.
  - (d) Plants must have appropriate arrangements for protection against pests, such as insects, rodents and birds. A documented pest control programme must be used for that purpose.
  - (e) Staff must have access to adequate facilities for personal hygiene such as lavatories, changing rooms and washbasins, if necessary to prevent risks of contamination.
  - (f) Cleaning procedures must be established and documented for all parts of the premises. Suitable equipment and cleaning agents must be provided for cleaning.
  - (g) Hygiene control must include regular inspections of the environment and equipment. Inspection schedules and results must be documented and maintained for at least two years.
2. The operator of an incineration or co-incineration plant shall take all necessary precautions concerning the reception of animal by-products or derived products to prevent, or limit as far as practicable, direct risks to human or animal health.

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3. Animals must not have access to the plants, animal by-products and derived products that are awaiting incineration or co-incineration or to ash resulting from the incineration or co-incineration of animal by-products.
4. If the incineration or co-incineration plant is located on a livestock holding:
  - (a) there must be total physical separation between the incineration or co-incineration equipment and the livestock and their feed and bedding, with fencing where necessary;
  - (b) equipment must be dedicated entirely to the operation of the incinerator and not used elsewhere on the holding or, alternatively, cleaned and disinfected before such use;
  - (c) personnel working in the plant must change their outer clothing and footwear before handling livestock or livestock feed.
5. The storage of animal by-products and derived products that are awaiting incineration or co-incineration and of ashes must be in covered, correctly identified and, if appropriate, leak proof containers.
6. Incompletely incinerated animal by-products must be re-incinerated or disposed of by other means, other than by disposal in an authorised landfill, in accordance with Articles 12, 13 and 14, as applicable, of Regulation (EC) No 1069/2009.

## *Section 2*

### **Operating conditions**

Incineration or co-incineration plants shall be designed, equipped, built and operated in such a way that the gas resulting from the process is raised in a controlled and homogeneous fashion, even under the most unfavourable conditions, to a temperature of 850 °C for at least 2 seconds or to a temperature of 1 100 °C for 0.2 seconds, as measured near the inner wall or at another representative point of the chamber where the incineration or the co-incineration is carried out, as authorised by the competent authority.

## *Section 3*

### **Incineration and co-incineration residues**

1. Incineration and co-incineration residues shall be minimised in their amount and harmfulness. Such residues must be recovered, where appropriate, directly in the plant or outside it in accordance with relevant Union legislation or disposed of in an authorised landfill.
2. Transport and intermediate storage of dry residues, including dust, shall take place in such a way as to prevent dispersal in the environment, such as in closed containers.

## *Section 4*

### **Measurement of temperature and of other parameters**

1. Techniques shall be used to monitor the parameters and conditions relevant to the incineration or co-incineration process.

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2. The approval issued by the competent authority, or conditions attached to it, shall lay down temperature measurement requirements.
3. The functioning of any automated monitoring equipment shall be subject to control and to an annual surveillance test.
4. Temperature measurement results shall be recorded and presented in an appropriate fashion to enable the competent authority to verify compliance with the permitted operating conditions laid down in this Regulation in accordance with procedures to be decided upon by that authority.

### *Section 5*

#### **Abnormal operating**

In the case of a breakdown, or abnormal operating conditions of an incineration plant or a co-incineration plant, the operator shall reduce or close down operations as soon as practicable until normal operations can be resumed.

## CHAPTER II

### **HIGH-CAPACITY INCINERATION AND CO-INCINERATION PLANTS**

#### *Section 1*

##### **Specific operating conditions**

Incineration or co-incineration plants treating only animal by-products and derived products with a capacity of more than 50 kg per hour (high-capacity plants) and which are not required to have a permit to operate in accordance with Directive 2000/76/EC shall comply with the following conditions:

- (a) The plants must be equipped for each line with at least one auxiliary burner. This burner shall be switched on automatically when the temperature of the combustion gases after the last injection of combustion air falls below 850 °C or 1 100 °C, as applicable. It must also be used during plant start-up and shut-down operations to ensure that the temperature of 850 °C or of 1 100 °C, as applicable, is maintained at all times during these operations and as long as unburned material is in the chamber where the incineration or co-incineration is carried out.
- (b) When animal by-products or derived products are introduced into the chamber where the incineration or co-incineration is carried out by a continuous process, the plant must operate an automatic system to prevent the introduction of animal by-products or derived products at start-up, until the temperature of 850 °C or of 1 100 °C, as applicable, has been reached, and whenever the temperature is not maintained.
- (c) The operator must operate the incineration plant in such manner that a level of incineration is achieved such that the slag and bottom ashes total organic carbon content is less than 3 % or their loss on ignition is less than 5 % of the dry weight of the material. If necessary, appropriate techniques of pre-treatment shall be used.

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## Section 2

### Water discharges

1. Sites of high capacity plants, including associated storage areas for animal by-products, shall be designed in such a way as to prevent unauthorised and accidental release of any polluting substances into soil, surface water and groundwater.
2. Storage capacity shall be provided for contaminated rainwater run-off from the plant site or for contaminated water arising from spillage or firefighting operations.

The operator shall, if necessary, ensure that such rainwater and such water can be tested and treated before discharge, when necessary.

## CHAPTER III

### LOW-CAPACITY INCINERATION AND CO-INCINERATION PLANTS

Incineration and co-incineration plants treating only animal by-products and derived products with a maximum capacity of less than 50 kg of animal by-products per hour or per batch (low-capacity plants) and which are not required to have a permit to operate in accordance with Directive 2000/76/EC shall:

- (a) <sup>F2</sup>only be used for the disposal of:
  - (i) dead pet animals referred to in Article 8(a)(iii) of Regulation (EC) No 1069/2009;
  - (ii) Category 1 materials referred to in Article 8(b), (e) and (f), Category 2 materials referred to in Article 9 or Category 3 materials referred to in Article 10 of that Regulation; and
  - (iii) dead individually identified equine animals from holdings not subject to health restrictions in accordance with Article 4(5) or 5 of Directive 2009/156/EC, if authorised by the Member State;]
- (b) when Category 1 materials referred to in Article 8(b) of Regulation (EC) No 1069/2009 are introduced into the low-capacity plant, be equipped with an auxiliary burner;
- (c) operate in such way that the animal by-products are completely reduced to ash.

#### Textual Amendments

- F2** Substituted by [Commission Regulation \(EU\) 2015/9 of 6 January 2015 amending Regulation \(EU\) No 142/2011 implementing Regulation \(EC\) No 1069/2009 of the European Parliament and of the Council laying down health rules as regards animal by-products and derived products not intended for human consumption and implementing Council Directive 97/78/EC as regards certain samples and items exempt from veterinary checks at the border under that Directive \(Text with EEA relevance\).](#)

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## [<sup>F3</sup>CHAPTER IV

### **GENERAL REQUIREMENTS FOR THE USE OF ANIMAL BY-PRODUCTS AND DERIVED PRODUCTS AS A FUEL**

#### *Section 1*

#### **General requirements regarding the combustion of animal by-products and derived products as a fuel**

1. Operators of combustion plants referred to in Article 6(6) shall ensure that the following conditions are met in the combustion plants under their control:
  - (a) Animal by-products and derived products intended to be used as a fuel must be utilised for that purpose as soon as possible or safely stored until used.
  - (b) The combustion plants must have in place appropriate measures to ensure that cleaning and disinfection of containers and vehicles are carried out in a designated area of their premises from which the wastewater can be collected and disposed of in accordance with Union legislation, to avoid risks of contamination of the environment.

By way of derogation from the requirements set out in the first subparagraph, containers and vehicles used for the transport of rendered fats may be cleaned and disinfected at the plant of loading or at any other plant approved or registered under Regulation (EC) No 1069/2009.
  - (c) The combustion plants must be located on a well-drained hard standing.
  - (d) The combustion plants must have appropriate measures in place for the protection against pests. A documented pest control programme must be used for that purpose.
  - (e) Staff must have access to adequate facilities for personal hygiene such as lavatories, changing rooms and washbasins, if necessary, to prevent risks of contamination of equipment for handling of farmed animals or their feedstuffs.
  - (f) Cleaning and disinfection procedures, must be established and documented for all parts of the combustion plant. Suitable equipment and cleaning agents must be provided for cleaning.
  - (g) Hygiene control must include regular inspections of the environment and equipment. Inspection schedules and results must be documented and retained for a period of at least two years.
  - (h) Where rendered fats are used as a fuel for combustion in stationary internal combustion engines located within approved or registered food or feed processing plants, the processing of food or feed on the same site must take place under strict conditions of separation.
2. Operators of the combustion plants shall take all necessary precautions concerning the reception of animal by-products or derived products to prevent or limit as far as practicable, risks to human or animal health and the environment.
3. Animals must not have access to the combustion plant or to the animal by-products and derived products awaiting combustion or the ash resulting from the combustion.

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4. Where the combustion plant is located on a holding keeping animals of food producing species:
  - (a) there must be total physical separation between the combustion equipment and the animals including their feed and bedding;
  - (b) equipment must be dedicated entirely to the operation of the combustion plant and not used elsewhere on the holding unless it had been effectively cleaned and disinfected before such use;
  - (c) personnel working in the combustion plant must change their outer clothing and footwear and take personal hygiene measures before handling animals on this or any other holding or their feed or bedding material.
5. The animal by-products and derived products that are awaiting combustion as a fuel and the combustion residues must be stored in a closed and covered dedicated area, or in covered and leak-proof containers.
6. The combustion of animal by-products or derived products shall be carried out under conditions which prevent cross-contamination of feed for animals.

## *Section 2*

### **Operating conditions of combustion plants**

1. Combustion plants must be designed, built, equipped and operated in such a way that even under the most unfavourable conditions the animal by-products and derived products are treated for at least for 2 seconds at a temperature of 850 °C or for at least 0,2 seconds at a temperature of 1 100 °C.
2. The gas resulting from the process is raised in a controlled and homogeneous fashion for 2 seconds to a temperature of 850 °C or for 0,2 seconds to a temperature of 1 100 °C.

The temperature must be measured near the inner wall or at another representative point of the combustion chamber, as authorised by the competent authority.

3. Automated techniques shall be used to monitor the parameters and conditions relevant to the combustion process.
4. Temperature measurement results shall be recorded automatically and presented in an appropriate fashion to enable the competent authority to verify compliance with the permitted operating conditions referred to in points 1 and 2 in accordance with procedures to be decided upon by the relevant authority.
5. The operator of a combustion plant shall ensure that the fuel is combusted in such a way 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.

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### Section 3

#### Combustion residues

1. Combustion residues shall be minimised in their amount and harmfulness. Such residues must be recovered, or where it is not appropriate, disposed of or used in accordance with relevant Union legislation.
2. The transport and intermediate storage of dry residues, including dust, shall take place in closed containers or in another way which prevents dispersal into the environment.

### Section 4

#### Breakdown or abnormal operating conditions

1. The combustion plant shall be equipped with facilities which automatically shut down operations in the case of a breakdown or abnormal operating conditions until normal operations can be resumed.
2. Incompletely combusted animal by-products and derived products must be combusted again or disposed of by means referred to in Articles 12, 13 and 14 of Regulation (EC) No 1069/2009 other than disposal in an authorised landfill.

#### Textual Amendments

- F3** Inserted by [Commission Regulation \(EU\) No 592/2014 of 3 June 2014 amending Regulation \(EU\) No 142/2011 as regards the use of animal by-products and derived products as a fuel in combustion plants \(Text with EEA relevance\).](#)

## CHAPTER V

### TYPES OF PLANTS AND FUELS THAT MAY BE USED FOR COMBUSTION AND SPECIFIC REQUIREMENTS FOR PARTICULAR TYPES OF PLANTS

#### A. Stationary internal combustion engines

##### 1. Starting material:

For this process, a fat fraction derived from animal by-products of all categories may be used provided it meets the following conditions:

- (a) unless fish oil or rendered fat is used which has been produced in accordance with Section VIII or XII of Annex III to Regulation (EC) No 853/2004, respectively, the fat fraction derived from animal by-products must first be processed using:
  - (i) in the case of a fat fraction of Category 1 and 2 materials, any of the processing methods 1 to 5 as set out in Chapter III of Annex IV.

Where this fat is moved by a closed conveyer system, which may not be by-passed, and provided such a system has been authorised by the competent authority, from the processing plant for immediate direct combustion the permanent marking with glyceroltriheptanoate (GTH) referred to in point 1 of Chapter V of Annex VIII shall not be required;

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- (ii) in the case of a fat fraction of Category 3 material, any of the processing methods 1 to 5 or processing method 7 as set out in Chapter III of Annex IV;
  - (iii) in the case of the materials derived from fish, any of the processing methods 1 to 7 as set out in Chapter III of Annex IV;
- (b) the fat fraction must be separated from the protein and in the case of fat from ruminant origin which is intended to be combusted in another plant, insoluble impurities in excess of 0,15 % by weight must be removed.

## 2. Methodology:

Combustion of animal fat as a fuel in a stationary internal combustion engine shall be carried out as follows:

- (a) the fat fractions referred to in points 1(a) and (b) must be combusted:
  - (i) under the conditions laid down in Section 2(1) of Chapter IV; or
  - (ii) using process parameters achieving an equivalent outcome as the conditions under (i) and which are authorised by the competent authority;
- (b) the combustion of material of animal origin other than animal fat must not be permitted;
- (c) the animal fat derived from Category 1 or Category 2 combusted in premises approved or registered in accordance with Regulations (EC) No 852/2004, (EC) No 853/2004, 183/2005, or in public places must have been processed with processing method 1 as set out in Chapter III of Annex IV;
- (d) the combustion of animal fat must be carried out in accordance with Union legislation for the protection of the environment, in particular, with reference to the standards and requirements of that legislation and the requirements regarding best available techniques for the control and monitoring of emissions.

## 3. Operating conditions:

By way of derogation from the requirements set out in the first paragraph of point 2 of Section 2 of Chapter IV, requirements based on other process parameters, which ensure an equivalent environmental outcome may be authorised by the competent authority responsible for environmental issues.

### B. On-farm combustion plants in which poultry manure is used as a fuel

#### 1. Type of plant:

On-farm combustion plant with a total rated thermal input not exceeding 5 MW.

#### 2. Starting material and scope:

Exclusively unprocessed poultry manure, as referred to in Article 9(a) of Regulation (EC) No 1069/2009, to be used as a fuel for combustion in accordance with the requirements set out in point 3 to 5.

The combustion of other animal by-products or derived products and of manure of other species or generated outside the holding shall not be allowed for use as a fuel in on-farm combustion plants referred to in point 1.



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3. Specific requirements for poultry manure used as a fuel for combustion:
- (a) The manure shall be stored securely in a closed storage area to minimise the need for further handling and to prevent cross contamination with other areas on a holding keeping animals of food producing species.
- (b) The on-farm combustion plant must be equipped with:
- (i) an automatic fuel management system to place the fuel directly in the combustion chamber without further handling;
- (ii) an auxiliary burner which must be used during start-up and shut-down operations to ensure that the temperature requirements set out in Section 2(2) of Chapter IV are met at all times during those operations and as long as unburned material is in the combustion chamber.

4. Emission limit values and monitoring requirements:

- (a) The emissions of sulphur dioxide, nitrogen oxides (namely the sum of nitrogen monoxide and nitrogen dioxide, expressed as nitrogen dioxide) and particulate matter shall not exceed the following emission limit values, expressed in mg/Nm<sup>3</sup> at a temperature of 273,15 K, a pressure of 101,3 kPa and an oxygen content of 11 per cent, after correction for the water vapour content of the waste gases:

<b>Pollutant</b>	<b>Emission limit value in mg/Nm<sup>3</sup></b>
Sulphur dioxide	50
Nitrogen oxides (as NO <sub>2</sub> )	200
Particulate matter	10

- (b) The operator of the on-farm combustion plant shall carry out at least annual measurements of sulphur dioxide, nitrogen oxides and particulate matter.

As an alternative to the measurements referred to in the first subparagraph, other procedures, verified and approved by the competent authority, may be used to determine the emissions of sulphur dioxide.

Monitoring shall be carried out by or on behalf of the operator in accordance with CEN standards. Where CEN standards are not available, ISO, national or other international standards which ensure the provision of data of an equivalent scientific quality shall apply.

- (c) All results shall be recorded, processed and presented in such a way as to enable the competent authority to verify compliance with the emission limit values.
- (d) For on-farm combustion plants applying secondary abatement equipment in order to meet the emission limit values, the effective operation of that equipment shall be monitored continuously and the results thereof recorded.
- (e) In the event of non-compliance with the emission limit values referred to in point (a) or where an on-farm combustion plant does not meet the requirements of point 1 of Section 2 of Chapter IV, operators shall immediately inform the competent authority and take the measures necessary to ensure that compliance is restored within the shortest possible time. Where compliance cannot be restored, the competent authority shall suspend the operation of the plant and withdraw its approval.

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5. Changes of operation and breakdowns:

- (a) The operator shall notify the competent authority of any planned change of the on-farm combustion plant which would affect its emissions at least one month before the date on which the change takes place.
- (b) The operator shall take the necessary measures to ensure that the periods of start-up and shut-down of the on-farm combustion plant and of any malfunctions are kept as short as possible. In the case of a malfunction or a breakdown of secondary abatement equipment, the operator shall immediately inform the competent authority.

[<sup>F4</sup>C. **Combustion plants in which manure of farmed animals other than poultry manure set out in point B is used as a fuel for combustion**

1. Type of plant:

Combustion plants with a total rated thermal input not exceeding 50 MW.

2. Starting material:

Exclusively manure of farmed animals other than poultry manure set out in point B, to be used as a fuel for combustion in accordance with the requirements set out in point 3.

The combustion of other animal by-products or derived products shall not be allowed for use as a fuel in combustion plants referred to in point 1. Manure of farmed animals other than poultry manure set out in point B generated outside the holding should not come in contact with farmed animals.

3. Methodology:

Combustion plants in which manure of farmed animals other than poultry manure set out in point B is used as a fuel shall comply with requirements set out in points B(3), B(4) and B(5).

4. Derogation and transitional period:

The Member State competent authority responsible for environmental issues may:

- (a) by way of derogation from point B(3)(b)(ii), grant combustion plants operating on 2 August 2017 an additional time period of maximum 6 years to comply with the first paragraph of point 2 of Section 2 of Chapter IV of Annex III to this Regulation;
- (b) by way of derogation from point B(4), authorise emissions of particulate matter not exceeding 50 mg/m<sup>3</sup>, provided the total rated thermal input of the combustion plants does not exceed 5 MW;
- (c) by way of derogation from point B(3)(b)(i), authorise manual placement of horse manure as fuel in the combustion chamber when a total rated thermal input not exceeding 0,5 MW.]]

**Textual Amendments**

- F4** Inserted by [Commission Regulation \(EU\) 2017/1262 of 12 July 2017 amending Regulation \(EU\) No 142/2011 as regards the use of manure of farmed animals as a fuel in combustion plants \(Text with EEA relevance\).](#)

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