


This Report has been cleared for submission to the Board by Programme Manager, Marie O'Connor.

Signed: Marie O'Connor Date: 23/05/23

 <p>Environmental Protection Agency An Ghníomhaireacht um Chaomhánú Comhshóisleáil</p>	OFFICE OF ENVIRONMENTAL SUSTAINABILITY
REPORT OF THE TECHNICAL COMMITTEE ON OBJECTIONS TO PROPOSED DETERMINATION	
TO: Directors	
FROM: Technical Committee	Environmental Licensing Programme
DATE: 23 MAY 2023	
RE:	Objection to Proposed Determination for ANGLO BEEF PROCESSORS IRELAND UNLIMITED COMPANY, CHRISTENDOM, FERRYBANK, COUNTY WATERFORD, IEL REG: P0040-03.

Application Details	
Classes of Activity (under EPA Act 1992 as amended):	7.7.1 The disposal or recycling of animal carcasses or animal waste with a treatment capacity exceeding 10 tonnes per day.
EPA Initiated Review:	8th December 2020
Licence application received:	22nd January 2021
PD issued:	27th January 2023
First party objection received:	1
Third party objection received:	0
Submissions on Objections received:	0

Company

The licence review application, initiated by the Agency, relates to a rendering installation located in Christendom, Ferrybank, County Waterford. The licence (P0040-03) for the installation is held by the parent company Ango Beef Processors Ireland Unlimited. The parent company operates another EPA licensed installation (P0205-02) of the same name on an adjacent site carrying out a slaughtering activity.

The P0040-03 installation processed 107,619 tonnes of Animal By-products material (Category 1, 2 and 3) in 2020 from the slaughtering and meat processing industry as well as fallen animals to produce meat & bone meal (MBM) and tallow. The installation has a weekly intake capacity threshold of 2,625 tonnes and operates a continuous cooking process. A thermal oxidiser (TO) was installed at the installation around 2004 to treat odorous gases. The operation, control and maintenance of the TO is not regulated under the existing licence and this is the main reason this review was initiated by the Agency.

There were 89 valid submissions received in relation to the application.

Consideration of the Objection

The Technical Committee, comprising of Mick Drumm (Chair) has considered all of the issues raised in the objection and this report details the Committee's comments and recommendations following the examination of the objections and the documents associated with the industrial emissions licence application.

This report considers the single first party objection received.

The objection points raised are summarised below. However, the original objection should be referred to for greater detail and further expansion of particular points.

First Party Objection

The applicant has made fourteen main points of objection relating to specific Conditions and Schedules of the Proposed Determination. The points of objection are dealt with in the order below. Some points of objection have been addressed under one heading, where it is considered appropriate to do so.

A.1 Leachate transfer off site

Objection No. 1 – This objection relates to leachate from animal by-products and blood. The licensee objects to *Condition 3.21* of the Proposed Determination (PD) that states "*All areas where animal by-products are deposited and stored shall be constructed so that the surfaces are impervious and laid to fall drains which lead to the Emission to the Waste Water Treatment point W1-SEP1*" as they note that Regulation (EC) No. 1069/2009 requires that leachate from these materials should be retained and treated on-site and that they should therefore not be directed to off-site wastewater treatment [on the adjacent EPA licensed site P0205-02].

Technical Committee's Evaluation: The TC notes that the licensee does not provide detail on the nature of the onsite collection and treatment for leachate for Animal By-Products and blood in their objection. However, having reviewed the licence review application and supporting documentation, the TC considers that *Condition 3.21* may be amended to accurately reflect the processes where animal by-products and blood are collected, stored and treated on-site.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interests of accuracy.

Recommendation:

Amend **Condition 3.21** as follows:

- 3.21 All areas where animal by-products and blood are deposited and stored shall be constructed so that the surfaces are impervious and laid to fall to drains **for collection and treatment as approved by the Agency.** ~~which lead to the Emission to Waste Water Treatment point W1-SEPL.~~

A.2 Biofilter cover

Objection No. 2 - The licensee has objected to the timeframe stipulated in the PD for the provision of a covered biofilter. *Condition 3.25* of the PD states that "*the licensee should permanently enclose the biofilter, whereby the abated gases will be extracted through a stack of not less than 10 metres in height within six months of the date of grant of the licence, unless otherwise approved by the Agency*". The licensee objects on the grounds that there is currently no covering on the biofilter, it is 1,100 m² in area and will require a detailed design, evaluation, tendering and installation period. The licensee indicates that they have had preliminary discussions with prospective organisations to deliver same that indicate a timeframe of 18 months to complete works.

Technical Committee's Evaluation: The TC notes the applicant has not provided a detailed breakdown of the timeframes for design, tendering and installation. While it is acknowledged that the six-month period provided for in the PD may be challenging to fully complete the required works, the eighteen-month timeframe requested by the licensee is considered excessive. The TC considers that the required construction is relatively straightforward comprising an enclosure and stack and should not necessitate complex construction, specialised abatement equipment or commissioning works. The TC considers that a 12-month period from date of grant of this licence is adequate to complete the required works and ensuring that the current odour nuisance issues caused by the installation are

addressed as soon as practicable. Additionally, the TC notes that the licensee did not provide a detailed breakdown of the proposed works or the responses from the prospective organisations contacted. It is further noted that should an aspect of the required works run beyond the 12-month timeframe provided, the licensee may request an extension from OEE. Given that the licensee has indicated that the primary source of the persistent odour nuisance beyond the installation boundary is from the uncovered biofilter and that a period of two months has already elapsed since the PD was issued, the TC concludes that *Condition 3.25* be amended to provide a 12-month timeframe for completion.

Therefore, the TC recommends that:

- Amend the six-month timeframe to a period of 12 months in *Condition 3.25* with the further provision that a report is submitted confirming the design of the works and timeframes for completion within 6-months of date of grant of licence and that construction and commissioning be completed within 12-months respectively of the date of grant of the licence.

The TC has reached its conclusion on the basis of the following considerations:

- In the interest of the protection of the environment, human health and prevention of odour nuisance beyond the installation boundary.

Recommendation: Replace **Condition 3.25** as follows:

3.25 Biofilter enclosure and stack

- 3.25.1 The licensee shall permanently enclose the biofilter, whereby the abated gases will be extracted through a stack of not less than 10 metres in height within twelve months of the date of grant of the licence, unless otherwise approved by the Agency.
- 3.25.2 The licensee shall provide a detailed report on the final design of the enclosure and stack required under condition 3.25.1, within six months of the date of grant of this licence.

A.3 Condensate pipeline

Objection No. 3 - The licensee objects to *Condition 3.26.1* of the PD: "*All liquid wastes arising from the condensers and boiler blowdown shall be directed via Emission point W1-CEP1 to the off-site waste water treatment plant via an impermeable pipeline*". The applicant objects on the grounds that only condensate is sent via W1-CEP1 to the off-site waste water treatment plant, with boiler blowdown discharged through Emission point W1-SEP1.

Technical Committee's Evaluation:

The TC notes that the licence review application refers to the discharge to Sewer (Attachment 7.3.1) that "*Condensates arising from backup odour abatement*

system" are discharged via Emission point "CEP1" to the off-site WWTP and liquid wastes arising from "process water, washdown and wastewater from on-site operations" are discharged from "SEP1". It is stated in the Inspector's Report (IR) and noted in material submitted in support of the application that boiler blowdown is a component of discharges from Emission point W1-SEP1 (SEP1).

The TC notes both emissions ultimately discharge to the off-site WWTP.

The TC recommends that in the interests of accuracy *Condition 3.26.1* of the PD should be amended to remove reference to boiler blowdown.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interest of accuracy.

Recommendation:

Amend **Condition 3.26.1** as follows:

3.26.1 All liquid wastes arising from the condensers ~~and boiler blowdown~~ shall be directed via Emission point W1-CEP1 to the off-site waste water treatment plant via an impermeable pipeline.

A.4 Fat trap at W1-SEP1

Objection No. 4 - The applicant objects to the reference to a fat trap in *Condition 6.14 "All process effluent from the site shall be discharged to the wastewater treatment plant of Anglo Beef Processors Ireland Unlimited Company, Reg. No. P0205-02 via a fat trap at W1-SEP1"* The licensee states that no fat trap exists on the Anglo Beef Processors Ireland Unlimited Company [P0040-03] site and none is required as screening to remove fats occurs on the adjacent Anglo Beef Processors Ireland Unlimited Company [P0205-02] site.

Technical Committee's Evaluation: The TC notes that there is no fat trap on the pipeline discharging effluent at W1-SEP1 to the adjacent site. The TC notes that fat traps are listed as BAT¹ for the treatment of wastewater. However, all process effluent is treated by the WWTP at the adjacent EPA licensed slaughtering site, which is separately subject to BAT requirements under licence Reg No. P0205-02. There is no requirement under BAT for the P0040-03 site to pre-treat their effluent via a fat trap in advance of effluent discharging to the adjacent P0205-02 site for treatment. Therefore, the TC acknowledges the need to amend *Condition 6.14* to reflect the processes on the P0040-03 site.

¹ BAT Guidance Note on Best Available Techniques for the Slaughtering Sector (1st Edition), EPA, 2009.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interest of accuracy.

Recommendation:

Amend **Condition 6.14** as follows:

- 6.14 All process effluent from the site shall be discharged to the waste water treatment plant of Anglo Beef Processors Unlimited Company, Reg. No. P0205-02 via a ~~fat trap~~ at W1-SEP1.

A.5 Toxicity Testing

Objection No. 5 - The licensee objects to *Condition 6.15* and the Toxicity Unit (TU) emission limit value of 5 TU in *Schedule B.3 Emissions to Waste Water Treatment*. The licensee contends that toxicity testing is not applicable for this installation as this condition relates to the testing of treated wastewater (final effluent prior to discharge to a receiving water) arising from wastewater treatment plants. The licensee argues that as the process effluent discharge from W1-SEP1 is not directly to a receiving waterbody but to the adjacent licensed site (P0205-02), waste water treatment plant Toxicity Testing is not an applicable requirement.

Technical Committee's Evaluation: The TC notes that the discharge from W1-SEP1 does not directly discharge to a receiving waterbody but is directed to the WWTP at the adjacent P0205-02 installation for treatment. It is noted that the potential impact of the discharge from the P0205-02 installation to the receiving waterbody was assessed at the time the P0205-02 licence was granted, and a toxicity limit and toxicity testing of the emission was not considered a requirement for the protection of the environment. Having considered the processes and materials used at the P0040-03 installation, the type of effluent treatment provided at the P0205-02 installation and the characteristics of the receiving environment, the TC considers that a toxicity limit and toxicity testing of the pre-treated effluent from the P0040-03 site is not necessary for the protection of the receiving waterbody, the Lower River Suir SAC (Site Code 002137) and The River Barrow and River Nore SAC (Site Code 002162), both of which are hydrologically connected to the discharge. In light of this, the TC considers that the toxicity limit and requirement to monitor toxicity at W1-SEP1 can be removed from the licence.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interest of proportionality.

Recommendation: Remove *Condition 6.15* and renumber subsequent conditions accordingly. Amend the table in *Schedule B.3 Emissions to Waste Water Treatment* to remove the Toxicity parameter and associated Emission Limit Value. Amend the table in *Schedule C.2.1 Monitoring of Emissions to Waste Water Treatment* to remove the Toxicity parameter, associated monitoring frequency, Key Equipment/Technique and footnote.

Amend **Schedule B.3** as follows:

B.3 Emissions to Waste Water Treatment

Emission Point Reference No: W1-SEP1 (Process effluent)
Sampling Location: E262021, N112048
Volume to be emitted: Maximum in any one day: 300m³
 Maximum rate per hour: 60 m³

Parameter	Emission Limit Value	Daily Mean Concentration (mg/l)	Daily Mean Load (Kg/day)
Temperature	35 °C (max)		
pH	6 - 9		
Toxicity	5 TU		
	mg/l		
Biochemical Oxygen Demand	5,000	2,100	840
Suspended Solids	1,500	-	450

And

Amend *Schedule C.2.1* as follows:

C.2.1 Monitoring of Emissions to Waste Water Treatment

Emission Point Reference No: W1-SEP1 and W1-CEP1

Control Parameter	Monitoring Frequency	Key Equipment/Technique
Flow	Continuous ^{Note 1}	On-line flow meter with recorder
Temperature	Weekly	On-line temperature probe with recorder
pH	Weekly	pH electrode/meter with recorder
Total Phosphorus ^{Note 3}	Monthly	Standard Method
Total Nitrogen ^{Note 3}	Monthly	Standard Method

Total Ammonia	Monthly	Standard Method
BOD ^{Note 3}	Weekly - grab at peak discharge	Standard Method
BOD ^{Note 3}	Weekly ^{Note 2}	Standard Method
COD ^{Note 4}	Weekly ^{Note 2}	Standard Method
Suspended Solids ^{Note 3}	Weekly ^{Note 2}	Standard Method
Oils, fats and greases ^{Note 3}	Monthly ^{Note 2}	Standard Method
Organic Compounds ^{Note 3 & 5}	Monthly ^{Note 2}	Standard Method
Toxicity ^{Note 6}	As may be required	To be agreed by the Agency
<p>Note 1: Total effluent volume discharged over the 24-hour period in which the composite sample is collected shall be recorded.</p> <p>Note 2: All samples shall be collected on a 24-hour flow proportional composite sampling basis.</p> <p>Note 3: Monitoring of this parameter shall apply to W1-SEP1 only.</p> <p>Note 4: Monitoring of this parameter shall apply to W1-CEP only.</p> <p>Note 5: Screening for priority pollutant list substances (such as US EPA volatile and/or semi-volatile compounds). This analysis shall include those organic solvents in use in the process, which are likely through normal process operators to be diverted to the wastewater streams.</p> <p>Note 6: The number of toxic units (TU) = 100/x hour EC/LC50 in percentage vol/vol so that higher TU values reflect greater levels of toxicity. For test regimes where species death is not easily detected, immobilisation is considered equivalent to death.</p>		

A.6 Thermal Oxidiser (TO) Temperature and Name

Objection No. 6 and No. 7. – The licensee objects to *Condition 6.24.1* of the PD “*The temperature as measured within the combustion zone of the thermal oxidiser shall be maintained at not less than 750°C. This temperature shall be continuously monitored and recorded and the results shall be available for inspection by authorised persons of the Agency at all reasonable times*”.

The licensee additionally objects to the TO name in *Condition 6.26.1 (iii)* “*where a bypass of the regenerative thermal oxidiser is initiated*”. The licensee objects to the description of the TO as regenerative, they state that the TO utilised on site is a recuperative TO, and request that *Condition 6.26.1* be amended to reflect the nature of the TO as such.

The licensee contends that a temperature of 700°C is sufficient for start up and shut down operations to operate the TO efficiently. The licensee notes that the current practice on site is that on start up of the TO, it generates steam which heats the process, and when the TO reaches 700°C any vapour from the cooker and collector are ducted to the TO. This prevents vapour going to the backup condenser system which discharges to the biofilter. The licensee contends that these vapours have a greater impact on the biofilter than when ducted to the TO. They further state that the current mode of operating at 700°C has been in place since 2003, is Best Available Technology (BAT) and the ELV specified in the licence can be met when operating at this temperature.

Technical Committee’s Evaluation:

The TC notes that the TO and its operation have not previously been considered in the licence for the installation, so prior management practices have not been assessed by the Agency. The TC notes that the Draft BAT Reference Document on Slaughterhouses, Animal By-Products and edible Co-Product industries (2023) in Chapter 2.3.8.2.13 - Thermal oxidation states *"For odorous compounds, a temperature of 750°C-850°C is generally adopted"* and further elaborates *"effective combustion of malodorous emissions is achieved by paying particular attention to the temperature in the combustion chamber, typically in the range of 750-850°C, with a sufficient residence time (typically between 1 and 2 seconds) and employing turbulence/mixing and sufficient oxygen"*. The TC notes the argument presented in the licence review application (Attachment 9F) – *"the TO at Waterford Proteins [P0040-03] has been designed for a retention time of 2 seconds. Longer retentive time in the TO means odours can be eliminated at lower operating temperatures. The company's TO operates above 700°C to eliminate odour. All monitoring undertaken by the EPA and the company have shown that it meets the odour and VOC limits as part of its current licence reference. The company can demonstrate that operation at 700°C is more than adequate to destroy the odour and VOCs associated with this process"*.

The TC further notes that the licensee has stated that the TO, under its current operational regime, is a "minor" source of odour and may indicate that operation at temperatures of 700°C is suboptimal. The TC notes that the licensee has provided information that the design temperature in the combustion chamber of the TO is 950°C (Attachment 9e). The licensee does not provide an explanation to reconcile the design temperature with the proposed operating temperature of 700°C. The TC considers that operation of the TO at a minimum temperature of 750°C, is in accordance with BAT guidance on the effective combustion of odorous compounds, in alignment with practices at sectoral peer facilities, and has the potential to mitigate the odour nuisance issues occurring beyond the installation boundary. The TC acknowledges that the operation of the TO at a temperature of 750°C will lead to a modest increase in fossil fuel consumption and associated GHG emissions from the installation.

The installation holds a GHG permit (Permit Register No. E-GHG142-10413-2) in conjunction with the adjacent site P0205-02). The P0040-03 installation does not cross the threshold for the mandatory application of the MCP regulations. However, the TC notes that although the TO is not an MCP and there is no requirement to apply the MCP limits, the ELVs specified in the license for NO₂ and particulates are aligned with the regulation². The TC considers that the impact of the increase in GHG emissions due to an increase in operating temperature to 750°C on local air quality is likely to be negligible.

Any discussion of GHG emissions must be extended to national and global climate impact. In the context of climate change, any activity which produces greenhouse gases must be regarded as contributing to the current significant cumulative global impact on climate. Given the small additional quantity of climate altering substances that would be emitted due to operating the TO at a minimum temperature of 750°C rather than 700°C, in a national context, I consider that the

² The European Union (Medium Combustion Plants) Regulation, S.I. No. 595 of 2017.

impact of these additional emissions from the installation on climatic considerations would be minimal. However, there is ongoing potential for odour nuisance at nearby sensitive receptors from the operation of the TO at a minimum temperature of 700°C. Although it is noted by the TC that the TO is identified as contributing minor amounts of odour emission this is in relation to the major source of odour emissions from the biofilter. Although relatively minor, the odour emissions from the TO have the potential to cause significant local impacts on sensitive receptors outside the installation boundary and the TC considers that operation of the TO should be in alignment with BAT i.e., that the recommended effective minimum temperature of the TO should be 750°C. The TC concludes that the licensee should adopt the temperature regime required for "*effective combustion of malodorous emissions*" as stated in BAT i.e., 750°C – 850°C.

The TC therefore recommends no change to the minimum operating temperature of 750°C.

The TC notes that majority of the references in this licence review application are simply to a "Thermal Oxidiser". However, in the planning documentation and in the IR the TO is described as being recuperative. As such the TC agrees that the PD should be amended to reference a recuperative thermal oxidiser. The TC additionally notes a Clerical Error in *Condition 6.26.1 (iii)* and recommends the removal of the extraneous number "1" at the end of the sentence in this condition.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interest of proportionality, application of BAT and the protection of the environment.
- In the interests of accuracy.

Recommendation:

No Change to *Condition 6.24.1*

And

Amend *Condition 6.26.1 (iii)* as follows:

(iii) where a bypass of the ~~regenerative~~ **recuperative** thermal oxidiser is initiated.

A.7 Fallen Animals

Objection No. 8 - The licensee objects to *Condition 8.10 "Animal Byproducts shall be transported from the point of production to the site of the activity as soon as practicable. During the period April to September inclusive, animal by-products delivered*

to the site from IPC/IE licensed slaughtering facilities shall not be more than 24 hours old. Animal by-products received from all other facilities shall not be more than 48 hours old. Animal by-products older than 48 hours may only be accepted for processing on the basis that adequate refrigeration or cooling is provided'. The licensee objects on the following grounds:

- As fallen animals make up a significant component of the installation intake the licensee argues that it is not possible to meet the requirements of *Condition 8.10* as fallen animals must be collected from farms and tested for the presence of bovine spongiform encephalopathy (BSE), before they can be transported to the installation. As test results often take more than 48 hours to be returned, the licensee indicates that it will not be possible to meet this condition.
- The licensee also receives and processes animal by-product raw materials from abattoirs, animal by-product processing facilities, knackeries and farmers, where it is not possible to determine or control the age of intake material. The licensee contends that it would be both unreasonable and impractical for the Agency to impose the condition that material from IE/IPC facilities be less than 24 hours old and animal by-products from all other facilities to be less than 48 hours old.
- The licensee asserts that the age of animal by-product raw material does not prevent the installation from otherwise processing the material in accordance with the required standards of the Animal By-Products Regulations, such that there is no risk of environmental pollution.
- The licensee contends that the inclusion of *Condition 8.10* would be prejudicial to the parent company as a failure to comply would expose the company to criminal liability and sanction. The licensee further notes that should the installation cease to accept such wastes so as to ensure compliance with the condition, it may lead to a significant increase in waste generation and pollution.
- The licensee asserts that it is impractical and impossible to refrigerate incoming animal by-product materials.

Therefore, the applicant proposes that *Condition 8.10* be amended as follows:

8.10 *"Animal Byproducts shall be transported from the point of production to the site of the activity as soon as practicable. Animal by-products received from all other facilities shall be transported to the facility as soon as practicable after DAFM clearance"*.

Technical Committee's Evaluation: The TC notes that all installations operating in the sector are faced with the same issues regarding the collection and testing of fallen animals for BSE, before they can be transported to the installation. The TC notes that all installations operating in the sector are similarly obligated by the timeframes, and the licensee has not provided evidence of a unique set of

circumstances that only apply to their installation in this regard. The TC also notes that the licensee does not provide detail or explanation of their assertion that “*the age of animal by-product raw material does not prevent the facility from otherwise processing the material in accordance with the required standards of the Animal By-Products Regulations, such that there is no risk of environmental pollution*”. The TC notes that the applicant provides no detail or evidence to its further assertion “*that it is impractical and impossible to refrigerate incoming animal by-product materials*”.

The TC considers that refrigeration/ chilling of incoming animal by-products is a proven technique and notes Section 5.3.3 of the Slaughterhouse BREF³ states that “*Where it is not possible to treat animal by-products before their decomposition starts to cause odour problems and/or quality problems, refrigerate them as quickly as possible and for as short a time as possible*”. The TC further notes that refrigeration/ cooling of incoming animal by-products more than 48 hours old is a condition in IE licences of several sectoral peer facilities.

However, as the TC considers that as the licensee has indicated that odour from incoming animal by-products is not a major source of odour beyond the installation boundary, an alternative odour control method approved by the Agency may be sufficient to mitigate against odour nuisance. The alternative odour control methods employed at the installation include negative pressure, building integrity, abatement of emissions to air from processes, storage tanks and cleaning of installation roads and surfaces. These alternative methods should mitigate against significant odour nuisance beyond the installation boundary.

The TC notes the findings of the odour assessment submitted by the licensee (Attachment – 227501) “*the biofilter (AEP-1) is the main source of odour at the facility with emission point AEP-2 (Thermal Oxidiser) contributing minor amounts*”. While it is acknowledged that the TO and biofilter represent the main and a minor source of odour emissions from the activity, it is the opinion of the TC that flexibility should be provided within *Condition 8.10* to allow for adequate control methods to be approved by the Agency, in place of refrigeration where considered appropriate. This is consistent with the approach taken in other recent licences issued in the sector.

Therefore, the TC recommends that *Condition 8.10* be amended to allow the licensee to accept Animal By-products older than forty-eight hours on the basis that refrigeration, or the alternative odour control methods outlined above and approved by the Agency, are provided.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interest of the protection of the environment and human health from potential odour nuisance and,

³ Integrated Pollution Prevention and Control Reference Document on Best Available Techniques in the Slaughterhouse and Animal By-products Industries (2005).

- In the interest of proportionality and sectoral consistency.

Recommendation: Amend *Condition 8.10* as follows

8.10 Animal by-products shall be transported from the point of production to the site of the activity as soon as practicable. During the period April to September inclusive, animal by-products delivered to the site from IPC/IE licensed slaughtering facilities shall not be more than 24 hours old. Animal by-products received from all other facilities shall not be more than 48 hours old. Animal by-products older than 48 hours may only be accepted for processing on the basis that adequate refrigeration ~~or~~ ~~cooling is provided~~, or alternative odour control method approved by the Agency, is provided.

A.8 Temperature of Thermal Oxidiser when using tallow

Objection No. 9 - The licensee objects to Footnote 1 of *Schedule B.1* Emissions To Air in the table for Emission Point Reference No. A2-AEP2 "*Note 1: A chamber operating temperature of 850°C shall be maintained as a minimum when using tallow as a fuel.*" The licensee objects on the grounds that the combustion of tallow is managed at 1100°C for 0.2 seconds and that this is provided for in the Animal By-Products Regulation (EC) No. 142/2011. The licensee proposes the footnote be changed to "*Note 1: The thermal oxidiser should be operated in accordance with Commission Regulation (EC) No. 142/2011, Annex IV, Section 2f.*"

Technical Committee's Evaluation: The TC notes that in the Animal By-Products Regulations (EC) No. 142/2011 Annex III Section 2 Operating conditions refers to incineration or co-incineration plants "*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 1100°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*".

On the basis that the temperature and residence time proposed by the licensee are provided for in the ABP Regulations the TC considers that this change can be permitted by the Agency.

The TC recommends that Footnote 1 in *Schedule B.1* of the Emissions to Air table for Emission Point Reference No. A2-AEP2 (Recuperative Thermal Oxidiser) be amended to allow for the retention time and temperature as per the ABP Regulations 2011. Therefore, the TC recommends that the Schedule be changed to provide for combustion of tallow as fuel only with a chamber operating temperature of 1100°C and a residence of 0.2 seconds.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interest of the protection of the environment and human health from air pollution and odour.
- in the interests of consistency with other installations in the sector and the application of BAT.

Recommendation:

Amend *Schedule B.1* as follows:

B.1. Emissions to Air

Emission Point Reference No:	A2-AEP2 (Recuperative Thermal Oxidiser)
Location:	E262131, N112135
Volume to be emitted:	Maximum in any one day: 3,600,000 Nm ³ Maximum rate per hour: 150,000 Nm ³
Chamber operating temperature:	750°C minimum ^{Note 1}
Residence time:	2 seconds minimum ^{Note 1}
Minimum discharge height:	40 m above ground

Parameter	Emission Limit Value (mg/Nm ³)	
	Natural Gas	Low Sulphur Fuel or Tallow
Nitrogen Oxides (as NO ₂)	220	650
Sulphur Dioxide (as SO ₂)	-	400
Particulates	-	30
Parameter	Emission Limit Value	
Odour (OU _E /m ³)	1,000	
Total Volatile Organic Compounds (TVOC)	10	

Note 1: A chamber operating temperature of 850°C 1100°C and a residence time of 0.2 seconds shall be maintained as a minimum when using tallow as a fuel.

◆

A.9 Thermal Oxidiser (TO) LEL Analyser and Thermal Oxidiser (TO) flow monitoring at emission point A2-AEP2

Objections No. 10 and 11 – The licensee objects to the requirement to conduct inlet flow monitoring and to conduct continuous inlet flow Lower Explosive Limit (LEL) at Emission Point Reference No. A2-AEP2.

Objection No. 10 - The licensee objects to *Schedule C.1.1* Emission Point Reference No. A2-AEP2 Inlet Continuous Lower Explosive Limit (LEL) monitoring and contends that there is no benefit to the installation, or the environment, and that this equipment is an excessive cost. The licensee further notes that the TO has operated safely for the past 20 years, that there is little to no risk of an explosive atmosphere at this location and that there is no ATEX rated equipment required for the installation.

Objection No. 11 - The licensee objects to *Schedule C.1.1* Emission Point Reference No. A2-AEP2 inlet air flow monitoring. The licensee asserts that it is not necessary to have both inlet and outlet flow monitoring for the TO, as they expect inlet and outlet air flow to be similar due to the system design. They note that the vapours entering the TO are quite corrosive with monitoring equipment in this location having a short lifespan (1-2 years). The licensee contends that as inlet and outlet flow are expected to be similar the inlet monitoring is unnecessary and will entail regular replacement of equipment.

Technical Committee's Evaluation:

The TC notes that LEL inlet monitoring is not a requirement at other EPA facilities in the sector that operate a Thermal Oxidiser. The TC further notes the ongoing odour nuisance issues at the installation and considers that the correct operation of the TO is of critical importance in the abatement of waste gas and the prevention of odour nuisance.

The TC acknowledges that in light of the extensive period of safe operation and that no ATEX rated equipment is required for this installation it can be considered that there is little to no risk of an explosive atmosphere at this location. Therefore, the TC recommends that the inlet LEL monitoring requirement be removed due to the nature of the activity, the composition of the waste gas stream and extensive period of safe operation of the TO.

The TC notes that no data was provided by the licensee in its objection or in the licence review application on the inlet flow to allow a determination be made on its similarity to outlet flow. As such the TC considers that the inlet flow monitoring requirement be undertaken until such time as the licensee can demonstrate that the outlet flow monitoring can be used as a proxy for the inlet flow monitoring.

The TC further notes should the licensee be able to provide 12 months of data where the inlet and outlet flow relationship can be used as corollaries, the licensee may apply to the Agency for permission to discontinue the inlet flow monitoring. The TC recommends that a footnote be added to *Schedule C.1.1* Control of Emission to Air providing for the removal of continuous inlet flow monitoring, if it can be determined that outlet flow monitoring can be reliably used as a substitute.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interest of proportionality and sectoral consistency.
- In the interest of protection of the environment and human health and preventing odour nuisance.

Recommendation:

Amend *Schedule C.1.1* as follows:

C.1.1. Control of Emission to Air

Emission Point Reference No: A2-AEP2
Description of Treatment: Thermal Oxidiser

Control Parameter	Monitoring	Key Equipment ^{Note 1}
Inlet Lower Explosive Limits (LEL)	Continuous	LEL Analyser
Combustion chamber temperature	Continuous	Temperature probe
Oxygen content of flue gases	Continuous	Oxygen analyser
Pressure of flue gas	Continuous	Pressure transmitter
Temperature of flue gas	Continuous	Temperature probe
Inlet and outlet air flow ^{Note 2}	Continuous	Flow meter

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.
Note 2: The continuous monitoring of both inlet and outlet air flow may be replaced by continuous monitoring of the outlet air flow only, following the preparation and submission of a detailed assessment report to the Agency, which demonstrates a comparable relationship between inlet and outlet air flow monitoring, and with the written approval of the Agency to amend the monitoring parameters.



A.10 Emission Point Refence No. *Schedule C.1.2*

Objection No. 12 – The licensee objects to *Schedule C.1.2* Emission Point Reference No. A2-AEP1-Biofiltration Bed location description on the grounds that it is incorrect and this location description should read A1-AEP1-Biofiltration Bed.


Technical Committee’s Evaluation: The TC notes that the application documents state the location description for the Biofiltration Bed consistently as A1-AEP1 and as such acknowledges the reference to A2-AEP1 in the PD as a typographical error.

The TC recommends that the PD be amended to include the correct location description.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interest of accuracy.

Recommendation:		
Amend <i>Schedule C.1.2</i> as follows		
<i>Schedule C.1.2 Monitoring of Emissions to Air</i>		
Emission Point Reference No:	A21-AEP1-Biofiltration Bed	
Parameter ^{Note 1}	Monitoring Frequency	Analysis Method/Technique
Odour	Quarterly	Standard Method
Volatile Organic Carbon	Biannually	Flue gas analysis
Volumetric Flow	Quarterly	Flow Meter
Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.		
		

A.11 Schedule C.2.1 Monitoring at emission point W1-CEP1

Objection No. 13 - The licensee objects to the specified monitoring (other than flow) of emissions to the off-site Waste Water Treatment Plant on the adjacent site (P0205-02) at W1-CEP1 in accordance with *Schedule C.2.1* Monitoring of Emissions to Waste Water Treatment. The licensee asserts that monitoring is not necessary when flow is <5m³/day. The licensee further objects to the proposed monthly monitoring frequency for oils, fats and greases (OFG) at Emission Point Reference No. W1-SEP1 on the grounds that they currently have approval in their current licence P0040-02 to conduct this monitoring on a quarterly basis.

Technical Committee's Evaluation:

The TC considers that the monitoring specified in the licence is necessary to determine the characteristics of the discharge leaving the licensed site boundary.

The TC further notes that the licensee does not provide a rationale for the significance of the 5m³/day threshold for monitoring. The TC also considers that in the event that the 5m³/day threshold is not reached the discharge to the WWTP would not be subject to any monitoring. The absence of monitoring would negatively affect the ability of the Agency to determine the characteristics and any associated environmental risks relating to the discharge. The Agency uses an evidence-based approach to determine whether an emission will cause negative environmental impacts before granting a licence. The Inspector has assessed the

impacts on the adjacent WWTP on the basis of the limits and flows provided in the licence review application. The licensee does not provide sufficient evidence in their licence review application or in their objection to support their rationale to restricting monitoring only to scenarios where flow $>5\text{m}^3/\text{day}$. In the absence of supporting evidence, the TC cannot consent to the proposed removal of monitoring of effluent discharge where flow is $<5\text{m}^3/\text{day}$. The TC notes that high pollutant concentration in the effluent discharge could still cause off-site impacts where flows are $<5\text{m}^3/\text{day}$. However, in the event that the licensee can provide a sufficient period of data demonstrating that the discharge has negligible environmental risk they can apply to the Agency to reduce the monitoring under Condition 6.8 of the licence. Therefore, the TC recommends no change to the monitoring in *Schedule C.2.1*.

The TC notes that the current OFG monitoring frequency is quarterly. The TC notes that OFG monitoring frequencies at similar installations in the sector are monthly. The TC considers that in the interests of proportionality and sectoral consistency the frequency of OFG monitoring should be monthly. Therefore, the TC recommends no change to OFG monitoring frequency.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- To ensure the protection of the environment.
- Proportionality and sectoral consistency.

Recommendation: No Change

A.12 Schedule C.2.2 Monitoring of Storm Water Emissions

Objection No. 14 - The licensee objects to the monitoring of Storm Water emissions from SW1 and requests the removal of continuous TOC monitoring from SW2 and SW3.

The licensee notes that there are no Storm Water emissions from SW1 as *"this has been removed from the site"*. The licensee asserts that TOC monitoring of storm water should be removed as *"the areas being drained are non-process related, have never indicated contamination, and pose an excessive cost for the discharge of clean surface waters"*.

Technical Committee's Evaluation:

The TC notes that Storm Water Emission Point Reference No. SW1 has not been removed from the site, rather that the discharge from SW1 i.e., *"Stormwater from the main production building, tank farms, the office block, the carpark and other area drains to the ABP WWTP for treatment"*. The TC notes that the site plan submitted by the licensee (Attachment 2 WP-06-137G) indicates two active storm water discharge locations, but does not detail the emission point reference numbers. However, the TC having reviewed the IR, the planning information and

the information submitted by the licensee in support of this licence review application has determined that there are no longer Storm Water discharges other than to the WWTP on the adjacent installation (P0205-02) from emission point SW1. There is now no potential for contaminated storm water discharging to the environment from SW1. Therefore, the TC recommends that reference to SW-1 may be removed from *Schedule C.2.2 Monitoring of Storm Water Emissions*.

The TC note the argument presented by the licensee regarding the removal of continuous TOC monitoring of Storm Water discharges on the basis of the lower risk nature of the areas being drained. Having reviewed the site drainage mapping and other information provided by the licensee regarding discharges from SW2 and SW3, the TC cannot be certain that there is no risk of environmental pollution from storm water discharges from these emission points. Continuous monitoring of stormwater for TOC is considered appropriate on the basis that it is the only "real time indicator" of possible pollution stipulated in the licence and it is a proven and widely utilised technique on numerous EPA licensed sites. The TC further notes that continuous TOC monitoring of Stormwater discharges is widely applied in sectoral peer facilities, and as such its application at P0040-03 can be considered proportionate. The TC further considers that continuous TOC monitoring of Storm Water discharges is necessary to determine the characteristics of the discharge leaving the licensed site boundary, to ensure protection of the environment. Therefore, the TC recommends no change to the requirement for continuous TOC monitoring at SW2 and SW3.

Reason for Decision:

The TC has reached its conclusion on the basis of the following considerations:

- In the interests of accuracy.
- To ensure the protection of the environment.
- Proportionality and sectoral consistency.

Recommendation:		
Amend <i>Schedule C.2.2</i> as follows:		
<i>C.2.2. Monitoring of Storm Water Emissions</i>		
Emission Point Reference No:	SW1 (262095E, 112090N), SW2 (262130E, 112180N), SW3 (262162E, 112173N)	
Parameter	Monitoring Frequency	Analysis Method/Technique
Visual Inspection	Daily	Sample and examine for colour and odour
pH	Monthly	Standard method
Conductivity	Monthly	Standard method
Suspended Solids	Monthly	Standard method

BOD	Monthly	Standard method
TOC	Continuous	Standard method
Total Ammonia	Monthly	Standard method
Ortho-phosphate	Monthly	Standard method

Environmental Impact Assessment Directive – Reasoned Conclusion Update:

The TC has reviewed the assessment in the Inspector’s Report and, taking into account all objections received, and the contents of this TC report, the TC considers that the potential significant direct and indirect effects of the activity have been identified, described and assessed in an appropriate manner as respects the matters that come within the functions of the Agency, and as required by Section 83(2A) of the Environmental Protection Agency Act 1992, as amended (hereafter referred to as the EPA Act).

It is considered that the monitoring, mitigation and preventative measures proposed in the Inspector’s Report, and as detailed in this TC report, will enable the activity to operate without causing environmental pollution, subject to compliance with the licence conditions included in the PD, with the inclusion of the amendments proposed in this report.

Appropriate Assessment – Technical Committee Review:

The TC has reviewed the Inspector’s Appropriate Assessment in the Inspector’s Report and, taking into account all objections received, and the content of this TC report, the TC is satisfied that the Inspector’s Report provides an adequate examination and evaluation of the effects of the activity on the European Sites concerned, at Lower River Suir SAC (Site Code 002137), River Barrow and River Nore SAC (Site code 002162), Mid-Waterford Coast SPA (Site Code 004193), Tramore Dunes and Backstrand SAC (Site Code 000671) and Tramore Backstrand SPA (Site Code 004027), in the light of their conservation objectives.

Overall Recommendation

It is recommended that the Board of the Agency grant a licence to the applicant

- (i) for the reasons outlined in the proposed determination and
- (ii) subject to the conditions and reasons for same in the Proposed Determination, and
- (iii) subject to the amendments proposed and the reasons set out in this report.

Signed

A handwritten signature in black ink, appearing to read 'Mick Drumm', is centered within a light gray rectangular box.

Mick Drumm

for and on behalf of the Technical Committee