


Signed: *Doonán Kearey*

Date: 12 May 2016

 <p>Environmental Protection Agency An Ghníomhaireacht um Chaomhnú Comhshaoil</p>	<p>OFFICE OF ENVIRONMENTAL SUSTAINABILITY</p>
<p>INSPECTOR'S REPORT ON A LICENCE APPLICATION</p>	
TO:	DIRECTORS
FROM:	Caroline Murphy - Licensing Unit
DATE:	12 th May 2016
RE:	Application for an Industrial Emissions licence from Nurendale Limited (trading as Panda Waste Services Limited) . Licence Application Register Number W0140-04 .

1. APPLICATION DETAILS

Type of installation:	Integrated waste management installation including non-hazardous materials recovery, biological treatment, electricity production using combined heat and power plant, refuse derived fuel production and a civic amenity installation ¹ .
Classes of activity under the First Schedule of the EPA Act 1992 as amended:	<p><u>11.1</u> The recovery or disposal of waste in a installation, within the meaning of the Act of 1996, which installation is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required.</p> <p><u>11.4(b)</u> Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, (other than activities to which the Urban Waste Water Treatment Regulations 2001 (S.I. No. 254 of 2001) apply):</p>

¹ To-date the civic amenity site has not been constructed.

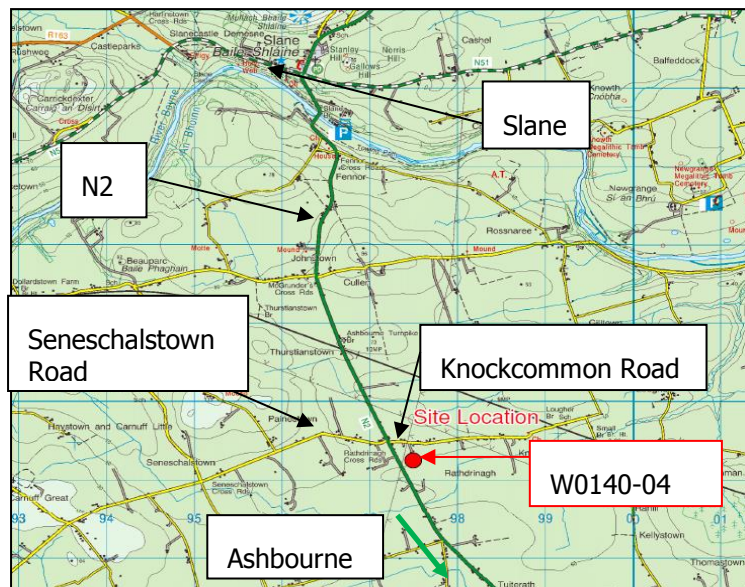
	(i) biological treatment; (ii) pre-treatment of waste for incineration or co-incineration.
Category of Activity under the Industrial Emissions Directive (2010/75/EU):	5.3(b) Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, and excluding activities covered by Directive 91/271/EEC: (i) biological treatment; (ii) pre-treatment of waste for incineration or co-incineration.
CRO number:	115425
Licence application received:	23 September 2009
Revised Application received date (submission of EIS):	26 May 2014
EIS received:	Yes
NIS received:	Yes
Baseline Report received:	Yes
Third Party submissions:	237 submissions (of which 9 withdrawn).
Site Inspection:	16 February 2011

2. INSTALLATION

This is an existing development authorised as an integrated waste management installation under waste licence register number W0140-03. Nurendale Limited trading as Panda Waste Services Limited has operated at this location since 2002.

The installation is located approximately 4km south of Slane on the Slane-Ashbourne Road (N2) which runs adjacent to the west boundary of the installation, see Figure 1. It is proposed to increase the site boundary by 3.2ha to accommodate an extension which will adjoin the eastern boundary of the current licence area. The predominant land use surrounding the site is agricultural and residential. There are also some commercial units on the western boundary of the site.

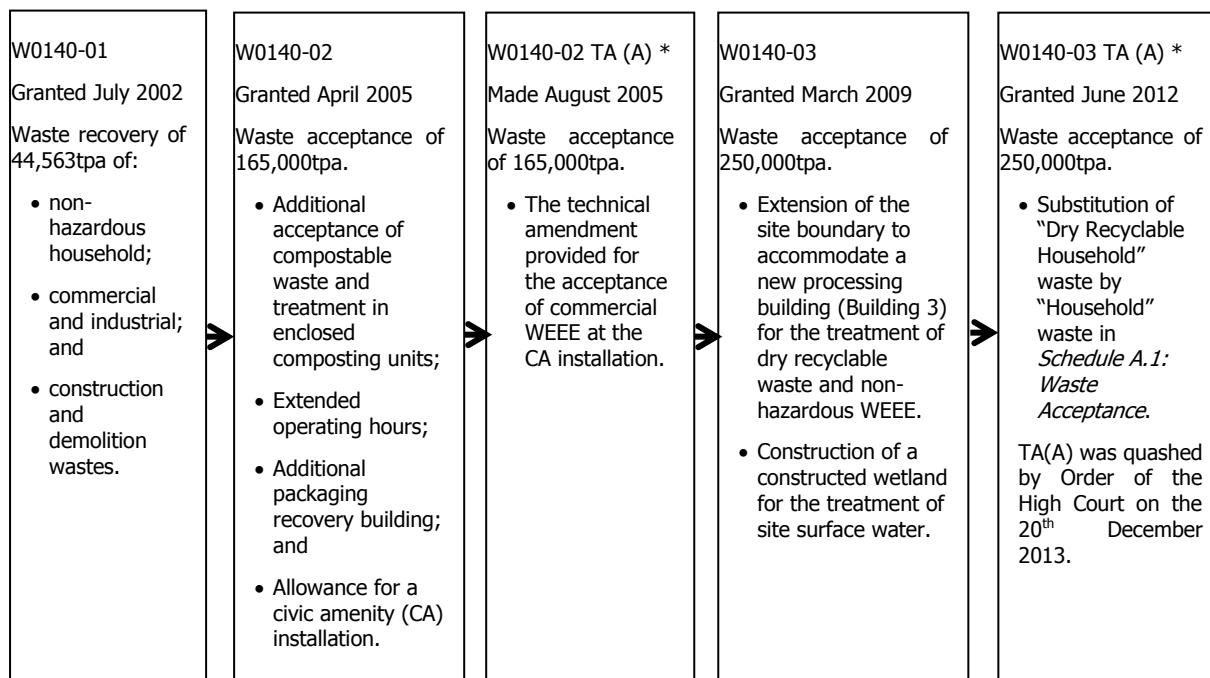
Figure 1: Location of the installation.



There are 22 residences within a 500m radius of the site. In this zone, there are nine residential dwellings along the Knockcommon Road and 13 residences along the N2 and Seneschalstown Roads. One of the closest residences on the northeast boundary of the site on the Knockcommon Road is owned by the licensee.

Currently approximately 100 people are based at the installation. It is expected that fifteen new positions will be created. Figure 2 below gives an overview of the licence history to date including the changes made under two licence reviews and two technical amendments.

Figure 2: Review/Amendment history of the licence.



* TA = technical amendment

Reason for Licence Review

Panda Waste Services Ltd. is applying for a licence to:

- extend the licence area to encompass a new building (Building 4), which will be used to biologically treat organic waste and organic fines to produce compost and stabilised waste respectively;
- use biogas generated by anaerobic digestion to generate electricity and heat in an on-site combined heat and power (CHP) plant;
- install a solid recovered fuel (SRF)/ refuse derived fuel (RDF) manufacturing plant in building 3, which will utilise waste fractions resultant from the processing of municipal solid waste (MSW);
- amend Condition 1.5.3 of the existing licence to permit the continuous operation of the biological treatment and the SRF/RDF manufacturing systems; and
- amend Condition 8.6 of the existing licence to allow the operation of the construction and demolition (C&D) waste processing plant in a dedicated area outside the transfer building.

3. PROCESS DESCRIPTION

An overview of existing and proposed buildings and activities at the installation is shown in Appendix 1.

Site boundary

The licensee proposes to extend the site boundary to the east to accommodate building 4 which will house the biological treatment installation.

The new area of land to the east of the installation is 3.2ha in area. The area is to be utilised as part of the proposed extension to accommodate the biological treatment facility (Building 4). This area of land is highlighted in green in Appendix 1.

Condition 1.3 of the recommended decision (RD) provides for the extension as part of the licensable area.

Opening and operating hours

The licensee has requested that the licence authorise the continuous operation of the biological treatment facility and SRF/RDF manufacturing systems. **Condition 1.5** of the RD provides for this proposal and **Condition 6.20.2** provides safeguards against noise emissions at night-time.

The waste acceptance and operating times for the remainder of the activities at the installation remain unchanged from the existing licence.

The planning permissions granted since the issuing of the last licence W0140-03 have not made any changes to the hours of opening and operation of the installation.

Waste types and treatment processes

Waste types accepted at the installation include:

- construction and demolition waste;
- source segregated dry recyclables;
- biowaste; and
- municipal solid waste.

It is not proposed to make any change in the general waste types or quantities accepted at the installation. However greater elaboration on waste types is proposed in Table A.2 of **Schedule A.2: Waste Acceptance** of the RD.

Processing of construction and demolition (C&D) waste

The treatment and storage of construction and demolition waste and recovered materials takes place in the existing building 2 and its immediate surroundings. **Condition 3.15** of the RD proposes that the construction and demolition waste recovery area shall at a minimum comprise a fully enclosed building or enclosure capable of containing all emissions arising from the recovery activity. Unprocessed materials are not stored outdoors at the installation. The licensee has separately sought a decision on the end-of-waste status of recycled construction and demolition waste.

Processing of source segregated dry recyclables

Dry recyclable waste is currently processed in the existing buildings 1 and 3.

Processing of biowaste and organic fines

Two types of feedstock are proposed to be accepted at the new biological treatment facility (Building 4):

- (i) source-segregated biowaste; and
- (ii) organic fines resultant from the processing of MSW in building 3.

Source segregated biowaste will be treated to make compost and meet compost standards proposed in **Schedule E** of the RD.

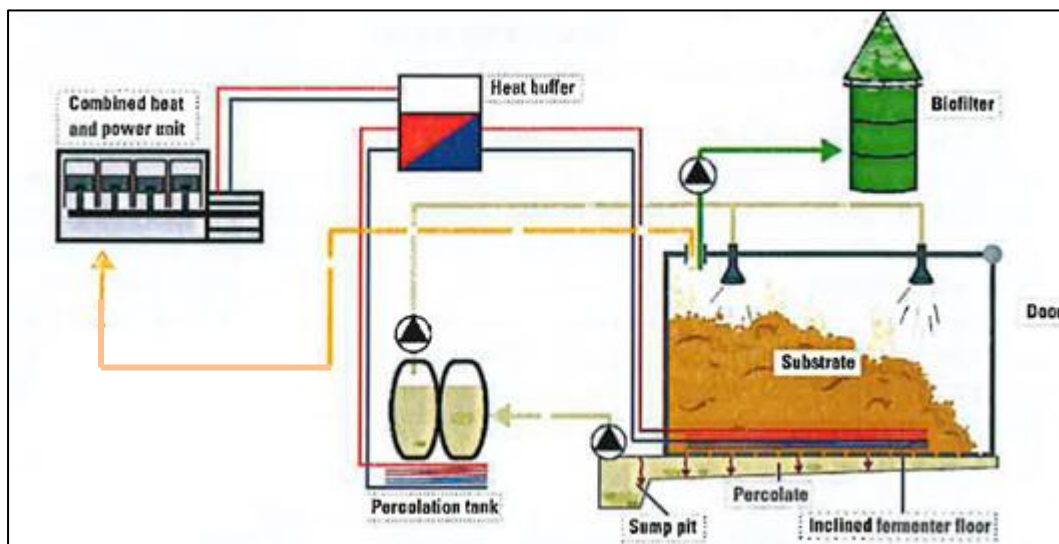
Biologically treated organic fines (known as bio-stabilised residual waste) is destined for use as landfill cover or equivalent low-grade uses. Bio-stabilised residual waste is to meet the standard proposed in **Condition 8.16.4** and monitored in accordance with **Condition 8.17** of the RD.

Figure 3 illustrates the proposed layout – subject to detailed design – of the biological treatment facility in building 4. A schematic of the anaerobic digestion process is shown in figure 4.

Waste arriving at building 4 will be unloaded in the indoor reception area prior to transfer to one of fourteen anaerobic digestion tunnels. The anaerobic digestion operating temperature of 37-40°C will be maintained through heated flooring. Each new batch of waste will be inoculated by sprinkling with an activated anaerobic sludge, called percolate. Once the 28-day anaerobic digestion cycle is complete the digestate is removed and loaded into one of eight aerobic composting tunnels where it will remain for 14 days. The treated compost is then moved to the pasteurisation tunnels where it is subjected to temperatures above 70°C for 2 hours to ensure specific pathogens have been killed and compliance with the Animal By-Products Regulation achieved. Screening and shredding equipment may be utilised prior to pasteurisation to ensure the final output specifications are met.

The final outputs from the processes will be compost (from source-segregated biowaste) and bio-stabilised residual waste (from organic fines) suitable for use as landfill cover. Process configurations as described above are subject to detailed design and the conditions of the RD provide some flexibility in this regard.

Figure 4: Schematic of the anaerobic digestion system.



In the existing building 1, the licensee has used a pair of “Wright” composting tunnels for the biological treatment of biowaste and organic fines. According to the AER for 2015, these tunnels have not been used since 2010. When in operation, waste is inserted into these tunnels within building 1; however, treated waste exits the tunnels outdoors and is transferred into a container which is stored outdoors also. These tunnels do not meet the requirements set out as Best Available Techniques in the Waste Treatment Industries BREF¹ as the tunnels are not within an enclosed building fitted with air extraction and abatement systems. If returned to active use, the tunnels will have to meet the requirements of **condition 3.11.2(b)** of the RD to ensure the prevention of fugitive odour emissions.

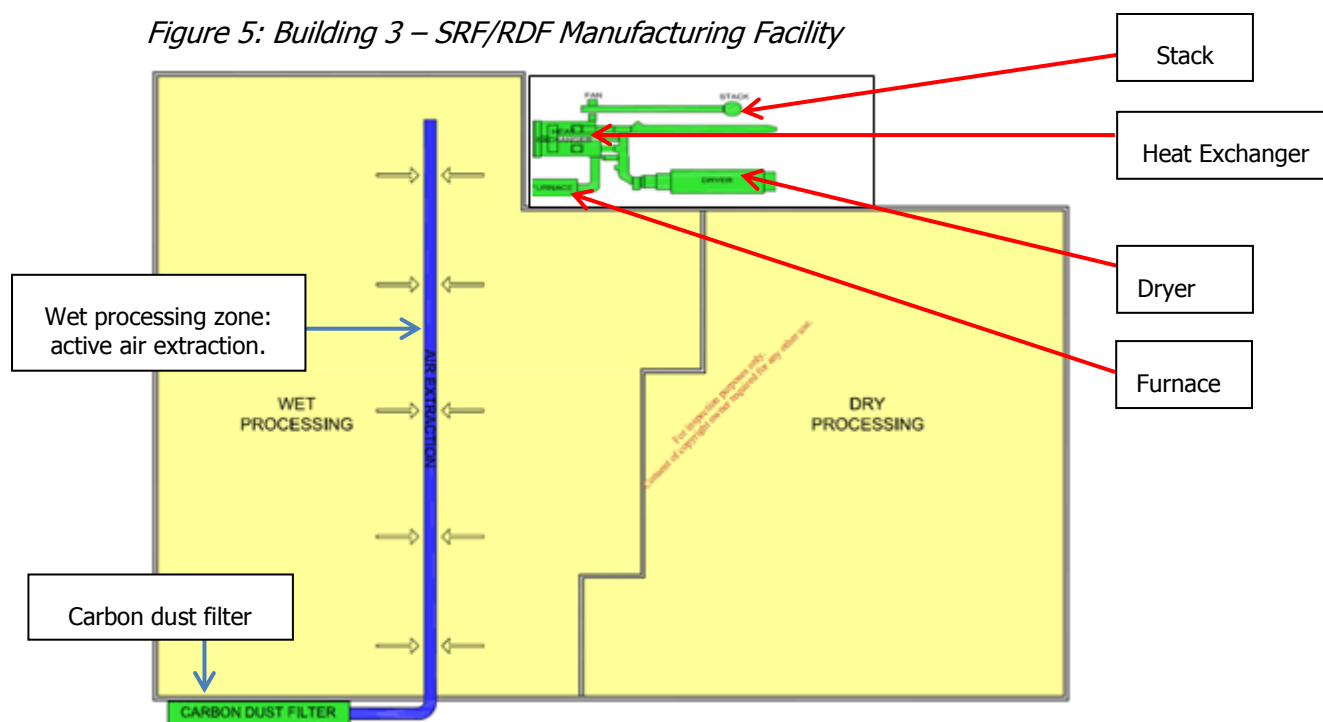
Operation of the biological treatment facility is governed by a large number of conditions and schedules of the RD. Emissions to air are limited by **Schedule B** of the RD. Biological treatment facilities have the potential to cause odour nuisance and extensive engineering controls on air and fugitive emissions from the buildings are necessary to mitigate this.

Processing of Municipal Solid Waste

A number of changes are proposed to the existing arrangements for the processing of MSW. Building 3 is authorised under the existing licence for the treatment of MSW. It is now proposed to divide building 3 into a wet processing zone and a dry processing zone - as shown in figure 5. The mechanical treatment of MSW will take place in the wet processing zone. The paper and plastic resultant from this treatment process will be dried in the thermal dryer to reduce the moisture content of the waste by approximately 15%. A biomass furnace (burning virgin woodchip) will supply heat to the dryer via a heat exchanger. The dried waste will enter the dry processing zone where it will be screened, shredded, baled and wrapped as SRF/RDF. It is also proposed that organic fines may be dried in the dryer.

¹ BREF ‘Integrated Pollution Prevention and Control Reference Document on Best Available Techniques for the Waste Treatments Industries’ (August 2006).

Figure 5: Building 3 – SRF/RDF Manufacturing Facility



The biomass (woodchip) furnace will treat odorous air from the dryer. Emissions from the furnace stack are discussed in section 6 below.

The wet and dry processing areas will be maintained under negative pressure and air will be extracted from these areas and routed through a dust filter and carbon filter before emission to atmosphere (emission point A2-6). A high efficiency dust filter will be used which is designed to achieve a particulate removal efficiency of 99.5%. The air leaving the dust filter will be injected with plasma to oxidise any bacteria present in the air minimising the risk of build-up of bacteria on the carbon filter and prolonging its operational life. Air from areas of high dust formation (e.g. shredding and screening of dry waste) will have separate air extraction ducts which will route air to pre-treating dust filters prior to reaching the high efficiency dust filter.

Commercial & industrial 'lights' (2D materials from skips and residual waste) are being recovered in buildings 1 and 3 to produce SRF. This waste type is clean and dry and as such there are no resultant organic or C&D fines from this process. The licensee proposes to accept and treat MSW in building 3 to manufacture RDF/SRF on grant of licence as this will require the operation of the thermal dryer. The dryer is situated adjacent to building 3 but is not currently operational.

4. PLANNING PERMISSION, EIS AND EIA REQUIREMENTS

4.1 EIA Screening

In accordance with Section 83(2A) of the EPA Act 1992, as amended, the Agency must ensure that before a licence or revised licence is granted, that the application is made subject to an environmental impact assessment (EIA), where the activity meets the criteria outlined in Section 83(2A)(b) and 83(2A)(c). In accordance with the EIA Screening Determination, the Agency has determined that the activity is likely to have a significant effect on the environment, and accordingly is carrying out an assessment for the purposes of EIA. An EIS was submitted with the licence application and was considered by the Agency for the purposes of EIA.

The EIS was requested by the Agency on the 27th March 2014 and it was subsequently submitted by the applicant in support of this IE licence application on the 26th May 2014.

4.2 Planning status

A number of planning applications have been made by the applicant for the proposed developments at the site of the activity since 2002. Details of these planning applications and permissions have been provided in the application.

Previous planning permissions associated with the installation attained by the applicant include register numbers: 01/4304, SA/20106, SA/20249, SA/30347, SA/60656, SA/900875, SA/140011 and SA/140429. Planning permission register numbers SA/60656, SA/900875, SA/140011 and SA/140429 relate to the activities requested in this licence review application and Meath County Council confirmed that an Environmental Impact Assessment (EIA) was not completed as part of these planning applications. An Environmental Impact Statement (EIS) was submitted with the first application for planning permission (register number 01/4304); however, this information is not reflective of the processes detailed in the licence review application. The Agency requested an EIS to be submitted as part of the application under Section 87 (1I)(b) of the EPA Act 1992, as amended. This EIS was submitted on the 26th May 2014 and has not been previously submitted as part of any planning application for the installation. Having reviewed the previous planning permissions, it is considered that the EIS submitted with the licence application adequately identifies, describes and assesses the direct and indirect effects of the entire activity and that the EIS relating to previous planning permission register number 01/4304 is not required for the Agency's assessment.

Having specific regard to EIA, this report is intended to identify, describe and assess for the Agency the direct and indirect effects of the proposed activity on the environment, as respects the matters that come within the functions of the Agency, including any interaction between those effects and the related development forming part of the wider project, and to propose conclusions to the Agency in relation to such effects.

The EIS submitted, the licence application, the submissions and observations received from third parties, the assessment(s) carried out by the planning authority, consultation with the planning authority, the relevant planning decisions and any additional information submitted by the licensee have been examined and assessed and are considered below for that purpose.

4.3 Content of EIS and licence application

I have considered and examined the content of the licence application, the EIS and other relevant material submitted with it.

It was considered that the EIS and licence application did not adequately address the following areas and further information was sought under the Waste Management (Licensing) Regulations 2004 and Regulations 10(2)(b)(ii) and 11(2)(b) of the Environmental Protection Agency (Industrial Emissions)(Licensing) Regulations 2013:

1. Clarification on the location of emission and monitoring points;
2. Process flows for the SRF/RDF manufacturing process;
3. Odour abatement;
4. Air dispersion modelling and odour impact assessment;
5. Noise;
6. Measures to be taken during abnormal working conditions and to minimise pollution over long distances;
7. Impacts on cultural heritage;

8. Inter-relationship between the factors assessed in the EIS;
9. Planning permission for the installation;
10. BAT conclusion analysis;
11. Fit and proper person assessment;
12. Closure, Restoration and Aftercare Management Plan;
13. Environmental Liabilities Risk Assessment;
14. Financial provision;
15. Baseline Report;
16. Revised site and newspaper notices;
17. Constructed wetland;
18. Biomass boiler; and
19. Natura Impact Assessment.

On receipt of further information, all of the documentation received was examined and I consider that the information as submitted contains a satisfactory description of the project, the alternatives studied by the applicant, the aspects of the environment likely to be significantly affected by the activity, the likely effects of the activity on the environment, the forecasting methods used, the prevention and mitigation measures envisaged, the difficulties and deficiencies encountered and a non-technical summary.

I consider that the EIS, when considered in conjunction with the additional material submitted with the application, also complies with the requirements of the EPA (Industrial Emissions)(Licensing) Regulations 2013.

I have considered and examined the documents furnished by Meath County Council in relation to the impacts assessed by it, in particular the planner's reports related to planning application numbers SA/900875, SA/140011 and SA/140429.

In Section 12 of this report I have addressed the issues that interact with the matters that were considered by the above authority and which relate to the activity.

Having considered the application and EIS, the submissions received and the matters resulting from the planning authority decision, I consider that the likely significant effects of the activity on the environment are as set out in Section 12 below.

4.4 Consultation with Competent Authorities

Consultation was carried out between Meath County Council and the Agency as follows:

Consultation	Date
Notice under Section 87(1I)(f)(i) issued:	27 th May 2014 to Meath County Council
Response to Section 87(1I)(f)(i) Notice received: <ul style="list-style-type: none"> - First reminder issued 19th January 2016. - Second reminder issued 29th April 2016. 	29 th May 2014 from Meath County Council stating the notice had been forwarded to Mr Michael Griffin, Senior Executive Office, Planning Section for his attention. 1 st October 2014 from Meath County Council stating it would be inappropriate for them to express a view as the matter is sub-judice.

	Response received 3 rd May 2016 in which Meath County Council confirmed that an EIA is required for the proposed activities and that they had no observations to make on the EIS submitted by the licensee.
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The following is noted in relation to the grant of the last planning permission for the installation (No. SA/140429) by Meath County Council:

- Condition 3 of the permission states that the wastewater treatment system shall be constructed in accordance with the recommendations set out in the EPA Code of Practice Manual, 2009. It also states that the system shall not give rise to any polluting matters entering waters.
 - o **Condition 3.27** of the RD reflects this requirement.
- Condition 9 of the permissions states that surface water run-off from this development shall not be connected to the foul sewer system.
 - o The RD does not authorise any emissions to sewer.
- Condition 11 of the permission states that activities at the site shall not give rise to noise levels off-site, at noise sensitive locations, which exceed the following should pressure limits (Leq. 15 minute): (i) 8am to 8pm Monday to Friday (inclusive) 55dB(A), (ii) 8am to 2pm Saturday 55dB(A) and (iii). any other time 45dB(A). It also states there shall be No clearly audible tonal component or impulsive component in the noise emission from the site at any noise sensitive location.
 - o **Schedule B.4** of the RD specifies daytime, evening and night-time noise emission limit values of 55, 50 and 45 dB $L_{Aeq, T}$.
- Condition 13 of the permission states that all hardstanding areas shall be covered with an impermeable surface or other approved surface and drained via an approved surface water drainage system. It also states only clean uncontaminated water from all hardstanding areas, including roofs, shall be discharged to the surface water drainage system.
 - o **Condition 3.6.2** of the RD requires the licensee to maintain an impermeable concrete surface in all areas of the installation associated with the movement, processing, storage and handling of waste, compost, digestate and emissions.

5. SUBMISSIONS

A large number of submissions were received in relation to this application since October 2011. This total does not count the submissions that were withdrawn by the authors.

There were, approximately:

- 96 submissions received in the period October-December 2011 (of which 2 were subsequently withdrawn),
- 142 in 2012,
- 0 in 2013,
- 9 in 2014 (of which 5 were withdrawn),
- 1 in 2015 (subsequently withdrawn), and
- 0 in 2016 to date.

5.1 Petitions

The first submission received was a petition signed by 93 people who objected to the proposals outlined in the licence review due to the impacts to agriculture, food production, the environment, tourism, health & safety and other impacts.

Several other submissions were signed by more than one person and many of these signatories also made their own individual submissions.

5.2 The "main submission"

Of all the submissions, approximately 209 submissions are the same or are versions of the same thing and are based on versions of a template document that circulated in the local community. An example of publicity circulating in the community is shown in Figure 1. For this report and solely for ease of reference, these submissions will be referred to collectively as the main submission. At least five major versions of the main submission exist (some with minor variations to the major versions) and it is evident that issues and points were added to the main submission template as time passed. The main submission in its varied versions is broad in scope but, being less than one page in length, lacks detail or evidence to support the points made. All of the main submissions (bar three) were received in the period between October 2011 and March 2012.

ROYAL COUNTY or ROYAL DUMP?

Are you aware that a massive Waste Facility is proposed for the Boyne Valley? Including:



➤ **A WASTE PROCESSING POWER PLANT (5 ACRES IN SIZE)**

- The facility is a significant disease hazard because the gas production process involves incubation of large quantities of infected unsanitised waste for long periods. Ammonia will be produced as a by-product which is a serious health hazard in drinking water and the Boyne River

➤ **A INCINERATOR-LIKE FURNACE**

- Large furnace with a 40-60ft black smoke emitting chimney. With an output equivalent to 3000 domestic fires, potentially spreading cancer causing Dioxins over a wide area.

➤ **A LARGE CHP FURNACE**

- Another large furnace with a 40-60ft smoke emitting chimney, also capable of spreading toxic substances over a wide area (20miles+)

➤ **AN INCINERATOR FUEL (RDF) PRODUCTION FACILITY**

- RDF is waste by another name, sold as a fuel which facilitates cement kilns incinerating waste which potentially releases cancer causing Dioxins. Cement Kilns do not have the emission controls necessary to prevent dioxin emissions. Burning RDF/Waste in Cement Kilns has been largely stopped by the US EPA because of health risks from dioxins releases.



- **SAY NO TO POLLUTION OF THE BOYNE RIVER**
- **SAY NO TO CONTAMINATION OF OUR DRINKING WATER**
- **SAY NO TO POLLUTION OF OUR CLEAN AIR**
- **SAY NO TO CANCER CAUSING DIOXINS**

Please send the submission on the other side of this page and/or your own letter to the EPA urgently before a final decision is granted by the EPA.

How to Submit Objection By Mail

Office of Climate, Licensing & Resource Use
Environmental Protection Agency Headquarters
PO Box 3000
Johnstown Castle Estate
County Wexford
Telephone Local 1890 33 55 99 or 053 91 60800
Email Licensing@epa.ie

How to Submit Objection Online

- Sign and scan the front page
- Go to www.epa.ie
- On the home page look for section "I Want To..."
- Search "Waste" licences

- Read and Tick I Confirm at the bottom of the page
- Press "Continue"
- Search 1: Search alphabetically by Applicant/Licensee name
- Select "N" for Nurendale who trade as Panda Waste Services Ltd
- Select Reg No. "W0140-04"
- Nurendale Ltd trading as Panda Waste Services Ltd.
- Look for section Licence application documents.
- Select "Make a Submission"
- Enter the details, browse for the file and "attached" scanned objection Submission.
- Press "Lodge Your Submission"

If you would like to help with the campaign or have any questions, please call a member of the Boyne valley Awareness Group. Phone: 087 9681918 or 085 1774828.
email: boynevalleyawarenessgroup@yahoo.com or contact us on [Facebook](#)

Figure 1 Example of publicity

The matters raised in the main submission are dealt with in the following paragraphs.

The main submission starts with a statement that the person or persons whose name or signature appears on the submission "objects to" or is "gravely concerned about" the proposed developments at the installation. Specifically the submissions are concerned with and object to the construction and operation of:

- dry fermentation building;
- refuse derived fuel processes/production;
- biomass furnace;
- associated gas production processes,

- combined heat and power generators (also referred to as biogas power plant);
- ESB generators,
- flares and
- ancillary works.

What follows in the main submission are reasons for the objections. These reasons are presented to a greater or lesser extent in the major versions of the main submission.

The main submission, and the text in this paragraph is collated from all versions, mentions the introduction of unproven dry fermentation technology using unsanitised biodegradable waste incubation and high risk feedstocks (i.e. contaminated and infected municipal solid waste), propagating potentially infectious diseases and resulting in an outbreak risk in an unsuitable agricultural location, posing significant risks to food quality, farm incomes, Irish food exports and the health and safety of the local community. The main submission mentions the impact on food safety from toxic substances and infectious disease emissions. Sensitive receptors are cited as the nearby Knockcommon and Yellowfurze national schools and the children that attend them. The statement about the unsuitability of the location also refers to an adjacent food storage depot, dairy farms and a tributary of the River Boyne.

In response to these concerns, the following points are pertinent:

- Dry fermentation, or anaerobic digestion, is not an unproven technology. The use of municipal waste as feedstock is relatively new, and particularly so in Ireland, but as a technique for generating biogas from organic matter, anaerobic digestion is well understood.
- It is not clear what “contaminated” or “infected” municipal solid waste means in the context of its being a “high risk feedstock”. The installation if operational will accept the waste generated in ordinary households and businesses and this will be no different to the municipal solid waste collected from people and treated at facilities across the country.
- Municipal solid waste is, as an animal by-product, subject to strict controls and is regulated in this regard by the Department of Agriculture, Food and the Marine. The installation will require a licence from the Department in order to operate in the manner proposed.
- The “unsuitability of the agricultural location” is not explained in the main submission. It is noted that planning permission has been granted for the proposed development of the biological treatment facility.
- There will be emissions from the installation and these will be regulated by the licence. Compliance with the licence and its emission limit values will ensure that environmental pollution is not caused. Food produced in the area will not be affected by emissions and there is no evidence of a knock-on effect on Irish food exports.
- There is no evidence of a possible adverse impact on farm incomes arising from the authorisation of the installation.
- The health and safety of the local community is first and foremost a matter for the applicant. The licensee’s existing activities are regulated by the Agency and deficiencies in the licensee’s performance are addressed by the Agency. The conditions and emissions limits of the licence, if granted in relation to existing and proposed activities, will ensure that environmental emissions will not lead to adverse impacts on human health.
- The licensee will not be authorised to accept any hazardous waste (which might include toxic substances) except household hazardous waste and similar commercial

waste accepted at the civic amenity facility, limited to 5 tonnes per annum. There will be no emissions of toxic substances.

The main submission refers to a hazardous uncontrolled biomass furnace and combined heat and power plant potentially releasing smoke and carcinogenic dioxins, VOCs, fine particle matter/ash and other toxic emissions over a wide area. An adverse impact on air quality is feared. In response to this item, the emissions from the biomass furnace (which will burn wood and use odorous emissions from the waste dryer as combustion air) and the combined heat and power plant (which will burn biogas) have been identified by the applicant and modelled. This is described in detail in section 6.1 of this report. Compliance with the emission limit values in the RD will ensure that no air pollution will be caused. With regard to dioxins, there is no apparent risk of dioxin formation from the combustion activities that are proposed. Nonetheless, yearly monitoring for dioxin emissions in the biomass furnace is recommended, including two samples to be taken a week apart during the test programme required under condition 6.1 of the RD.

Some versions of the main submission express a fear that municipal waste will be incinerated in the biomass furnace. In response it is important to state unambiguously that this will not happen. It is not proposed by the applicant and is not proposed to be authorised in the licence.

The main submission refers in its varying forms to the lack of planning permission for one or other of the components of the development and to the lack of EIA. In response, the planning authority has confirmed that all elements and proposed elements of the installation proposed to be licensed are planning compliant. An Environmental Impact Statement (EIS) was sought by the Agency and an Environmental Impact Assessment (EIA) has been completed and documented in this report.

The main submission in all its versions refers to the risk of pollution to the adjacent River Lougher and the downstream River Boyne. The nature or source of polluting substances are identified in the main submission as toxic ammonia from spills (liquid ammonia from systems failures is cited in one version of the main submission), damaged waste water tanks and runoff. The risk to key salmon and sea trout spawning beds is mentioned as is impact on the sensitive Boyne valley eco-system and the nearby Newgrange visitor centre and "Newgrange's Special Buffer Zone". The location of an industrial development in the area would risk UNESCO removing the status of the Newgrange World Heritage Site. A public drinking water supply is located at Roughgrange public water pumping station downstream of the installation and supplies Drogheda, Duleek, Ashbourne and Dunshaughlin and the main submission mentions an impact to it.

In response to these items, there will be storm water emissions from the installation and these are proposed to be regulated in the RD. The emissions of storm water, if compliant with the conditions of the RD, will not cause environmental pollution. This is discussed in section 6.3 of this report. It is noted that storm water is currently collected in a tank and taken for treatment to a waste water treatment plant. The licensee proposes to operate a constructed wetland system to treat storm water and discharge the treated water to the adjacent stream. The reference to and possible source of toxic ammonia from spills is not clear. The "sensitive Boyne valley eco-system" is not defined in the main submission but it is taken to be the local water dependent eco-system and this will be protected by the conditions of the RD and good practice in the management of storm water at the installation. The Newgrange visitor centre is located over 4.5km away as the crow flies from the installation. The Newgrange tomb is located some 1,000 metres from and at an elevation 40m higher than the confluence of the River Boyne and the river system that drains the area of the installation. There will be no impact on the visitor centre in the event of polluting emissions to water from the installation. The Newgrange Special Buffer Zone extends to 3,300 hectares around the tombs at Knowth, Dowth and Newgrange and is approximately 3km from the installation at its closest point and partly includes the rivers

that drain the area around the installation. In relation to the Newgrange World Heritage status, the UNESCO website¹ states that the selection criteria (and reasons applied to Newgrange, in parentheses) are as follows:

- to represent a masterpiece of human creative genius (The Brú na Bóinne monuments represent the largest and most important expression of prehistoric megalithic plastic art in Europe);
- to bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared (The concentration of social, economic and funerary monuments at this important ritual centre and the long continuity from prehistory to the late medieval period make this one of the most significant archaeological sites in Europe); and
- to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history (The passage grave, here brought to its finest expression, was a feature of outstanding importance in prehistoric Europe and beyond).

It is not clear, and neither is it stated in the main submission, how these criteria and their reasons at Newgrange are impacted negatively by the current presence of the installation or the proposed new activities there. The air dispersion model described in section 6.1 of this report shows that there will be no adverse impacts from emissions to air outside the installation boundary. The Roughgrange water abstraction point is located on the Roughgrange river just before its confluence with the River Boyne. The risk of storm water discharges having an adverse impact on this water supply is low and this is demonstrated in this report, including the appropriate assessment that assesses risk to the River Boyne and River Blackwater SAC and SPA.

The main submission refers to groundwater contamination but no elaboration whatsoever is provided. In response, it is important to highlight that the risk of groundwater contamination is low. The entire installation is covered with concrete and no emissions to groundwater are permitted.

The main submission refers to fire and explosion risks associated with biogas production. In response, the risk of fire is an understandable concern given recent history at the installation. With regard to biogas, there will be no biogas storage capacity at the installation and all biogas will be burned as it is produced in the fermentation process. Generally with regard to fire risk at the installation, condition 9.4 of the RD requires the preparation of a fire risk assessment for the installation and this assessment will tie in with the preparation of a waste storage plan required under condition 8. Conditions 9.1 and 9.2 require the preparation and implementation of an accident prevention procedure and emergency response procedure respectively.

Odour is identified as a concern in the main submission and, in response, this is also understandable given the history of complaints to the Agency regarding odorous emissions and also the fact that a site handling biodegradable waste will always present a risk of odour nuisance. The emission of odorous gases can be managed however and nuisance need not be an expectation. Compliance with conditions of the licence will mean that emissions of nuisance odour will be minimised. For example:

- the RD requires that all waste treatment and storage is indoors, with the exception of recovered construction and demolition waste.

¹ <http://whc.unesco.org/en/list/659> and <http://whc.unesco.org/en/criteria/>.

- the RD requires that all buildings that are used for the treatment or storage of residual, municipal or other odour-forming waste are maintained under negative pressure and extracted air treated to remove odorous compounds. In the proposed biological treatment facility, this treatment will include acid stripping followed by a biofilter. In the refuse-derived fuel building, this treatment will include ozone treatment and carbon filtration.
- the RD requires that doors are kept closed.

Noise is identified as a concern in the main submission and, in response, it is noted that in the period May 2013 to September 2014, a large number of noise complaints were made. Since that time, noise complaints have been infrequent. *Schedule B.4* of the RD sets the noise limit values that are not to be exceeded by the licensee. The AER for 2014 identifies the adjacent N2 road as an important source of noise emissions in the vicinity.

Litter and pests are identified as a concern in the main submission and, in response, the conditions of the licence require active management of these aspects and the prevention of nuisance.

The impact on visual amenities is identified as a concern in the main submission as is increased traffic hazard. In response, the visual amenities that will be affected are not identified and, in any event, this is a matter for the planning authority and is also addressed in the EIA contained in this report. In relation to traffic, whilst traffic volumes outside the installation boundary are a matter for consideration by the planning authority, it is noted that the RD recommends no increase in the total quantity of waste authorised for acceptance at the installation than the existing licence – 250,000 tonnes per annum. It is worthy of mention however that the AER for 2015 shows that 164,076 tonnes of waste were accepted in that year, so the licensee is not operating to their currently authorised capacity.

The impact on habitats and protected species in the River Boyne and River Blackwater SAC is mentioned in the main submission. The following species are mentioned in the latest version of the main submission: otter, lamprey and kingfisher. This matter is covered in the Appropriate Assessment section of this report. The whooper swan is also mentioned in the main submission and this species has not been designated as a protected species, however, it was dealt with in the appropriate assessment as the site synopsis¹ for the River Boyne and River Blackwater SAC states the species is of national and at times international importance.

5.3 Other submissions

An overview of the other submissions received is provided below in the order they were received. This includes a summary of issues raised in the submissions and a response to those issues. It is not possible to present a detailed account of each and every submission.

5.3.1 Ms Ruth Scott

Ms Scott made three submissions, of which one is included as a main submission in section 5.2 above and two are unique letters dated 27/11/11 and 13/2/2014. The two unique submissions will be addressed here.

Air

Ms Scott's submission of 27/11/11 (submission no. 17 on the EPA website) refers first to breaches by the licensee of their existing licence and serious disturbance including pollution with potential health impacts for Ms Scott and her family. The submission refers to sickening odours, noise and other environmental nuisances from the installation. The submission

¹ Site Synopsis - River Boyne and River Blackwater SAC (Site Code 002299) Department of Arts, Heritage and the Gaeltacht, Version date: 6.01.2014.

refers to the use by the licensee of odour masking chemicals in the period 2006 to 2010 which are said to be worse than the smell of waste. The submission states that “many of the children and some adults who live close to the installation suffer from respiratory problems such as asthma” and, in the same paragraph, “the smell of rubbish contains many harmful chemicals.”

Operating hours and noise

Ms Scott’s submission states that operations regularly start at 5am, outside licensed hours, and continue late into the night, waking up Ms Scott’s family. This has been going on for years. The noise intensity and odour nuisance increased in the second half of 2011 during daytime to unbearable levels.

Pollution control equipment

Ms Scott states that, at the time of the submission (November 2011), the licensee had not installed the negative air systems required by condition 3.11.3 of the licence nor the wetlands system for stormwater treatment.

Fit and proper person

According to Ms Scott, the licensee has not demonstrated they are “capable of safely containing the environmental nuisance and pollution from existing relatively simple waste handling processes compared with the considerable risks associated with the proposed new unproven technologies for which Panda have no previous experience.”

Ms Scott predicts that increased noise and odour pollution will be the result of granting a new licence. Increased litter, vermin, traffic, toxic air pollution, impacts on food safety due to emissions of toxic substances and infectious disease emissions will also result as will threats to farm incomes, food exports, people’s health water quality and fish. Fire and explosion risk will increase and tourism will be impacted in the Boyne valley and at Newgrange.

Biomass furnace/Biogas power plant

In a submission dated 13 February 2014 (submission no 236 on the EPA website), Ms Scott refers to the fact that it has come to her attention that the building of a biomass furnace/biogas power plant has been given the go ahead on the surrounding agricultural land. Ms Scott expresses horror given the fire in June 2012 and its after effects on the health of her family. Ms Scott outlines some of the symptoms and experiences endured by her family during the fire and reiterates her fears arising from:

- continued out of hours operations with traffic congestion, air pollution and noise (from 4am to 2am),
- fear of explosion from a biogas plant,

and repeats her appeal not to allow the biomass furnace and biogas plant to be built.

Response

As documented earlier in this section of the report, there have been a large number of complaints concerning odour and noise nuisance from the installation. However, there were very few complaints in 2015 and have been none to date in 2016. The experiences described above should not be endured by any person living near a waste installation and the conditions of the RD are such that compliance will ensure that the probability of complaint is minimised. Most of Ms Scott’s technical concerns have been dealt with in the responses to the main submission above. The matter of operating out of hours is an enforcement matter and, if ongoing, will be dealt with as a matter of non-compliance with the licence. Having said that, the operation of the biological treatment facility will be continuous and machinery will run overnight. The licensee will have to comply with the noise limits set out in the RD and should be capable of so doing. With regard to Ms Scott’s

submission of 13 February 2014, the source of Ms Scott's information is not apparent but it is a fact that neither the biomass furnace nor the biogas power plant have been built.

5.3.2 Theresa and John Outram

Mr and Ms Outram made three submissions, one each labelled individually as Mr Outram and Ms Outram and a third jointly. All are unique letters dated 27/11/11 (x2) and 1/2/2012. Mr and Ms Outram's letters of 27/11/11 are very similar to Ms Scott's letter of the same date and the matters addressed will not be repeated. Mr and Ms Outram's submission of 1/2/2012 is presented as a complaint regarding smoke, fumes and constant background noise coming from the installation. Black smoke was observed and a complaint made to OEE who reported back that the licensee was servicing a boiler. The submission mentions that Mr or Ms Outram as well as their sons are asthma sufferers and respiratory problems have improved since the perfume spray ceased. Mr and Ms Outram express a bleak future and fear the biomass furnace will become a waste incinerator and the biogas plant will present a fire and explosion risk. Mr and Ms Outram request increasing the frequency of unannounced site inspections and noise and air pollution monitoring and policing of environmental policies. Mr and Ms Outram request that the licensee is not authorised to expand the existing installation.

Response

The majority of Mr and Ms Outram's points have been addressed and commented on earlier. Regarding site inspection frequency, since the date of Mr and Ms Outram's submission on 1/2/2012, 16 site visits by OEE have taken place.

5.3.3 Peter Sweetman and Associates on behalf of the residents of Rossnaree Estate Beaupark

Mr Sweetman's submission refers to the finding of the European Court of Justice in case C-50/09 of March 2011 that Ireland has failed to fulfil its obligations under Council Directive 85/337/EEC. Mr Sweetman states that because parts of this development have not been included in any EIS for the development of the site and, by reference to the Environment (Miscellaneous Provisions) Act 2011, it is not legally possible for the EPA to issue a licence for this development.

Response

Section 83(2A)(b) of the EPA Acts stipulates that where an *activity* is likely to have significant effects on the environment by virtue, *inter alia*, of its nature, size or location, that the EPA must ensure a licence application is made subject to an EIA *as respects the matters that come within the functions of the Agency*.

An Environmental Impact Statement (EIS) was submitted with the first application for planning permission (register number 01/4304); however, this information is not reflective of the processes detailed in the licence review application. The Agency requested an EIS to be submitted as part of the application under Section 87 (1I)(b) of the EPA Act 1992, as amended. This EIS was submitted on the 26th May 2014 and has not been previously submitted as part of any planning application for the installation. Having reviewed the previous planning permissions, it is considered that the EIS submitted with the licence application adequately identifies, describes and assesses the direct and indirect effects of the entire activity.

An Environmental Impact Assessment has been completed in accordance with the relevant legislation and is documented in this report.

5.3.4 Tomás Ó hOistín

Mr Ó hOistín is the principal of Scoil Naomh Pío. Scoil Naoimh Pío has 75 pupils and is located approximately 1km away from the installation. Mr Ó hOistín seeks reassurances

regarding dioxins, river pollution, noise, odour, fire and explosion and highlights that the health and safety of his pupils is paramount. Mr Ó hOistín also seeks information on the monitoring programme, including continuous monitoring, to be in place during the construction and operation of the biological treatment facility.

Response

Regarding the potential environmental impacts listed in the submission, these have been addressed above. A programme of emissions monitoring is set out in Schedule C of the RD.

5.3.5 Bob McMahon

Mr McMahon made two unique submissions (nos. 101 and 230 on the EPA website) dated January and August 2012 respectively.

Mr McMahon in his earlier submission observes that the proposed power plant at the installation is another massive waste project planned for Meath. The biomass power plant will potentially spread cancer-causing dioxins over a huge area with the prevailing winds from chimneys heading over Newgrange and the Boyne valley region. Water quality is a concern for Mr McMahon as is the location of the proposed plant in the midst of housing, a petrol station, butcher and deli shops and schools. It is utterly irresponsible for the Agency to consider approving the "massive undertaking." Mr McMahon is also concerned regarding traffic volumes, now and in the future, and property devaluation, adding to the impact of the Knockharley landfill. Mr McMahon is concerned with the "veil of secrecy" surrounding the proposal given that he only found out about it in December 2011. (The application was received in 2010). Mr McMahon addresses his concerns regarding the development of County Meath and its potential to the County Council and the Minister for the Environment.

Mr McMahon's later submission refers to the June 2012 fire (and earlier fires) and also to a technical amendment made to the waste licence on the 11th July 2012 which it is understood authorised the intake of an additional 85,000 tonnes of waste. Regarding the fire, Mr McMahon is concerned with the toxic smoke emissions resulting from the burning of 700 tonnes of waste and what might have happened had there been an operational biogas plant in the vicinity at the time. Mr McMahon is concerned with the lack of information after the fire on the cause of the fire.

Response

Mr McMahon's concerns are noteworthy and have all been addressed in the sections above. With regard to the petrol station, butcher and deli shops, all of these premises are outside the existing and proposed installation boundaries.

With regard to the June 2012 fire, I have not carried out a critical review of the Agency's files regarding the period of time around the June 2012 fire and cannot therefore comment on the timeliness of reports prepared after the fire.

With regard to the technical amendment to the licence made in June 2012, its purpose was to correct an apparent error in the licence and not to authorise any new activities or increased intake of waste. The technical amendment was quashed by order of the High Court in 20 December 2013.

5.3.6 Inland Fisheries Ireland

IFI wishes to object to the application and refers to their objection to planning application SA900875 made in 2009. IFI refers to the Rathdrinagh stream adjacent to the installation and expresses alarm that the applicant has apparently carried out no assessment of these local waters. IFI understands that there will be considerable amount of finished product (biofuel) and process waste water stored in close proximity to the Rathdrinagh stream. In the event of an accident, the liquid might enter the local ground and surface waters and cause severe pollution as far as the River Boyne Estuary at Drogheda. IFI is also concerned

with the potential impact on drinking water abstraction points in the event of a discharge or fire. IFI desires that the EPA satisfy itself that the technology is sound regarding health and safety. IFI states that a full appropriate assessment is required in relation to salmonid species in the lower reaches of the Rathdrinagh Stream and in particular mentions Atlantic salmon and brown trout. Finally, IFI refers to the design of the proposed constructed wetland and the fact that it was designed in 2006. The design should be reviewed and updated to reflect current understanding and technology.

Response

It is not clear what "finished product" or "biofuel" the IFI refers to. It is likely to mean the refuse derived fuel, solid recovered fuel, compost and/or digestate that are or will be generated at the installation, if licensed. These are all non-liquid materials and will be stored indoors. Process and waste water tanks will be located close to the installation boundary and near the Rathdrinagh Stream (also referred to as the Roughgrange river in this report and in submissions). The RD requires bunding of these tanks as well as a preventative maintenance approach, an accident prevention programme and an emergency response procedure. An appropriate assessment was completed by the Agency and is contained in this report. The constructed wetland design was submitted to the OEE for approval in January 2014. Approval was subsequently granted by the OEE for this Specified Engineering Work. Control and monitoring requirements for the constructed wetland are set out in the RD.

5.3.7 Department of Arts, Heritage and the Gaeltacht

The Department notes that the planning application appears not to have been referred by the Council to the Minister for Arts, Heritage and Gaeltacht and as such the Minister has not measured the potential impact on the nearby Brú na Bóinne World Heritage Site. The Department notes that potential impacts have not been examined in the application and refers to the submissions mentioning the Boyne valley area, Newgrange and the World Heritage Site.

The Department states that a full appropriate assessment is required in the context of the River Boyne and River Blackwater SAC and SPA and refers to:

- the Department's guidance document on appropriate assessment;
- the Commission's guidance document on appropriate assessment;
- details of site conservation objectives set out at NPWS.ie or by request; and
- the National Biodiversity Data Centre.

The Department recommends consultation with relevant local authorities to determine whether any projects or plans which, in combination with the applicant's proposals, could impact on a Natura 2000 site.

Response

An appropriate assessment was completed by the Agency and is contained in this report.

5.3.8 Liam Rice on behalf of the Rossin and Slane Anglers

Mr Rice is concerned with air pollution and the probable pollution of the Lougher River that runs adjacent to the installation and the consequent contamination of the drinking water abstraction point downstream, especially in the event of flooding. Mr Rice is particularly concerned about the impact on fisheries of any release of harmful chemicals into the river. The Boyne valley must be protected as a pristine habitat for wildlife and natural resources.

Response

Mr Rice's concerns are noteworthy and have all been addressed in the sections above.

5.3.9 Health Services Executive

The HSE conducted a site visit to the installation in February 2012. No odours or outdoor noise were evident. The proximity of housing, local businesses and a farm was noted. HSE files (as of the date of the submission – March 2012) show no complaints received. The HSE submission considers certain environmental aspects of the application documentation and concludes that there are no comments to be made.

Response

No response required.

5.3.10 Marie and Leo Dunne

Ms and Mr Dunne's submission was made after the June 2012 fire at the installation. Ms and Mr Dunne refer to the four days that thick black smoke (toxic emissions) engulfed the area. Ms and Mr Dunne state that no consideration was given by either the EPA or the company to the families living in the area. The local school was not advised to keep children indoors during the fire. Ms and Mr Dunne reiterate their opposition to the revision of the existing licence to authorise a biogas facility given the apparent failure of the company to protect the health and safety of residents.

Response

For the purposes of this report, I have not carried out a critical review of the Agency's files regarding the period of time around the June 2012 fire and cannot therefore comment on what the Agency did or did not do regarding communications with local residents and schools.

5.3.11 Thomas Tully

Mr Tully refers to the June 2012 fire. Mr Tully refers to his belief that 40-60 foot chimneys will be erected and expresses concern regarding the smoke that will be emitted from them given the unsuitable site and location for the project.

Response

The stack at the biomass furnace is to be 16m high. The stack at the combined heat and power engines is to be 17m high. The predicted emissions from these stacks has been modelled and it has been concluded that no environmental pollution will be caused if emissions are kept within the emission limit values set out in the RD.

5.3.12 An Taisce

The last submission on the application was made in June 2014 by An Taisce. The submission simply states that "all issues relating to conditional compliance with existing licence need to be addressed."

Response

The Office of Environmental Enforcement was consulted as part of the licence review as described in section 14 of this report.

6. EMISSIONS

An overview of the emission points associated with the installation is shown in Appendix 3.

6.1 EMISSIONS TO AIR

Point-source emissions to atmosphere will arise at the biological treatment facility and the refuse derived fuel manufacturing facility. There are six new emission points proposed and one existing point, as follows:

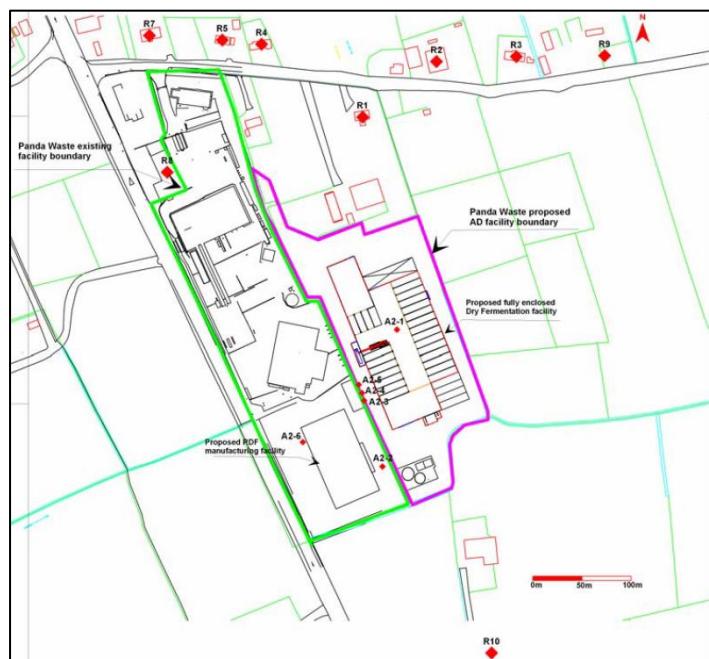
- A-1: existing building 1 biofilter, there have been no emissions from the biofilter since 2010;
- A2-1: building 4 biofilter - for treatment of air from the composting chambers and the general building;
- A2-2: building 3 woodchip biomass furnace also used for treatment of thermal dryer off-gas in which case a temperature of 800-850°C for 2 seconds is to be maintained to ensure treatment of the off-gas;
- A2-3: building 4 biogas flare;
- A2-4 and A2-5: two CHP gas engines at building 4;
- A2-6: building 3 carbon filter (preceded by dust emissions controls).

Condition 3.11 requires the installation of odour management infrastructure. The proposed odour management system consists of a biofilter. **Condition 6.16.2** requires the applicant to maintain and implement a programme to demonstrate negative pressure and building envelope integrity.

Odour dispersion model

The impact of emissions from the proposed new biofilter (A2-1), and the carbon filter (A2-6) and biomass furnace (A2-2) associated with the refuse derived fuel manufacturing facility were modelled for odour impact at the nine receptors numbered R1 – R9 shown in the figure below. The AERMOD prime model was used and the applicant followed the methodology outlined in the Agency Guidance Note AG4¹.

Figure 6 Location of Potential Odour Receptors (red dots)



¹ Air Dispersion Modelling from industrial Installations Guidance Note (AG4), EPA 2010.

A summary of the odour modelling results is set out in Table 1 below and this predicts that there will be no impact due to odour emissions from the installation.

Table 1 Summary of Odour Dispersion Modelling Results

Emission Point	Odour Emission Concentration ^{Note 1} (OU _E /m ³)	Maximum Predicted Concentration at Receptor Locations 98 th Percentile of 1-hour averages (OU _E /m ³)									Ambient Standard (OU _E /m ³)
		R1	R2	R3	R4	R5	R6	R7	R8	R9	
A2-1	700	0.73	0.58	0.67	0.51	0.48	0.42	0.47	0.62	0.56	1.50 ^{Note 2}
A2-2	1,000										
A2-6	500										

Note 1: Dispersion model input value.

Note 2: Ambient standard from EPA guidance (AG4).

The predicted odour emission from the existing biofilter adjacent to Building 1 (A-1) was not modelled. If building 1 is in the future used to process residual, food and odour-forming waste the building will be required to be kept under negative air pressure with the ventilation gases being subject to treatment (**Condition 3.11**). **Schedule B.1** of the RD authorises an emission via A-1 only if an odour dispersion model demonstrates that odour nuisance will not be caused.

The emission concentrations modelled are within the range <500 – 6,000 Ou_E/m³ which is specified in section 5.2 of the BREF Note *Waste Treatment Industries* (2006) for treated exhaust gas. The input factors used in the dispersion model resulted in predicted odour concentrations at the 9 surrounding residential receptors below 1.5 Ou_E/m³. Taking this into consideration the emission limit values recommended in **Schedule B.1** are as set out in Table 1.

Air dispersion model

Air dispersion modelling was completed for the emission points at the woodchip biomass furnace (A2-2), the biogas flare (A2-3) and the two CHP engines (A2-4 and A2-5).

As shown in Table 2, the maximum ground level concentration values modelled are less than the relevant standard for each parameter.

Table 2 Air dispersion modelling

Parameter	Averaging period	Process contribution to Predicted Ground Level Conc. (µg/m ³)	Baseline Conc. Value (µg/m ³)	Baseline + process contribution (µg/m ³)	Limit as per S.I. 180 of 2011 (µg/m ³)	% of the ambient standard
Nitrogen oxides (as NO ₂)	1 hour max. 99.79 th %tile	101	18	119	200	59.5
	Max. annual average	13.3	9	22.3	40	55.6
Carbon monoxide	8-hour max.	510	300	810	10,000	8.1
Sulphur dioxide	1 hour max. 99.73 th %tile	120	6	126	350	36
	24 hour max. 99.18 th %tile	50	3	53	125	42.4
	Max. annual average	9	3	12	20	60
Total particulates	24 hour max. 90.40 th %tile	17	14	31	50	62

	As PM ₁₀ Max. annual average	7	14	21	40	52.5
	As PM _{2.5} Max. annual average	7	9	16	25	64
Hydrogen chloride	1 hour max. 100 th %tile	9	2.7	11.7	750	1.56
	1 hour max. 98 th %tile	5	2.7	7.7	100	7.7
	Max. annual average	0.4	2.7	3.1	20	15.5
Hydrogen fluoride	1 hour max. 100 th %tile	2.5	0.05	2.55	160	1.59
	1 hour max. 98 th %tile	1.5	0.05	1.55	3.0	51.67
	Max. annual average	0.13	0.05	0.18	0.3	60

The air dispersion model provided by the applicant didn't take into consideration the air quality standard for the protection of ecosystems from oxides of nitrogen specified in Schedule 13 of the Air Quality Standards Regulations 2011. The quality standard sets a limit of 30µg/m³ as an annual average for oxides of nitrogen as a critical level for the protection of ecosystems. It is clear from the table above that an annual average of 30µg/m³ is not exceeded (22.3µg/m³).

To limit the air emissions from point sources **Schedule B.1 Emissions to Air** of the RD includes limit values for emissions from all scheduled emission points. The emission limit values are based on what was modelled by the applicant. **Schedule C.1.2 Monitoring of Emissions to Air** of the RD stipulates the monitoring requirements for these emission points.

Medium Combustion Plant Directive

The biogas engines and biomass furnace are classified as medium combustion plant in accordance with Directive 2015/2193 on the limitation of emissions of certain pollutants into the air from medium combustion plants. The Directive is required to be transposed into national law by December 2017. The Directive sets emission limit values for nitrogen oxides, sulphur dioxide and particulates (the latter for biomass furnace only) and the dates by which they will become applicable. **Schedule B.1** of the RD reflects the requirements of the Directive and provides different implementation dates depending on whether the combustion plant, when installed, is defined as 'existing combustion plant' or 'new combustion plant'. These terms are defined in the Directive. It is noted that, in relation to the biomass furnace, the applicant modelled lower emission values that the Directive would allow, as follows:

Parameter	Modelled emission value	Directive's limit value
NOx as NO ₂	400 mg/m ³	650 mg/m ³
Sulphur dioxide	150 mg/m ³	200 mg/m ³

The modelled emission values are retained in the RD.

6.2 EMISSIONS TO SEWER

There are no emissions to sewer from the installation.

6.3 EMISSIONS TO SURFACE WATERS

There are no process emissions to surface waters.

The current licence provides for a stormwater discharge to surface waters at emission point SW1 via a drain at the southern boundary of the installation (Appendix 2). However the licensee currently routes storm water through a silt trap and an oil interceptor to storage in holding tanks. The contents of the holding tanks are sent for treatment off-site at a waste water treatment plant.

BAT conclusion No. 45 of the Waste Treatments BREF recommends the installation of an enclosure system whereby rainwater falling on the processing areas is collected in a combined interceptor. Section 4.5.1.5 of the Draft Waste Treatments BREF covers minimization of waste water generation and water usage and prevention of contamination of ground and surface waters and lists constructed wetlands as a treatment method for surface water to reduce the pollution potential before discharge to local watercourses. The current licence authorises the installation of a constructed wetland into which run-off from the existing paved yards will discharge after first passing through silt traps and an oil interceptor. The current licence also outlines a test programme for the installation and operation of the constructed wetland and this condition is carried into **Condition 6.1.1** of the RD. Planning permission register no. SA/140429 granted permission to retain and complete the reed bed surface water filter area which was originally granted permission in planning application register no. SA/60656. A wetland construction proposal was submitted to the Agency on the 21st April 2014 and this was subsequently approved by the OEE. The wetland was installed in August 2015 but is not yet operational and no effluent from this system is being discharged. Retention testing of the wetland is currently taking place using groundwater from an on-site well. The total surface area of the wetland is 1880m² with a volumetric capacity of 925m³. The system has been designed to accommodate hydraulic surges caused by critical storm events. The base of the wetland has been lined to prevent infiltration to groundwater. BAT conclusion No. 43 states that procedures should be in place to ensure that the discharge specification is suitable for discharge. **Condition 6.1.1** requires the licensee to incorporate the criteria for operation of the wetland as determined under the test programme to be incorporated in to the installation's standard operating procedures. **Schedule B.2** sets out the emission limit values of treated run-off to the southern land drain for BOD, suspended solids and total ammonia.

Rainwater from the roof of the biological treatment facility will be collected in an existing above ground storage tank and used for dust suppression.

Condition 3.22 of the RD requires the licensee to carry out a risk assessment to determine if the activity should have a fire-water retention facility. It is noted in this regard that fire water generated during the fire at building 3 was contained within the installation.

6.4 EMISSIONS TO GROUND/GROUNDWATER

There are no direct process emissions to groundwater from this installation.

Rainfall on the new concrete yards around building 4 will be collected and passed through a silt trap and an oil interceptor prior to discharge to a soakaway (Appendix 3).

A hydrogeological risk assessment was completed at the site of the proposed extension to establish if the natural ground conditions would allow storm water from paved areas to percolate to ground through a soakaway. Trial pits were dug in the area of the proposed soakaway in order to complete percolation testing. The results of this testing indicated that the soils in this area of the site are suitable for percolation of the storm water from the paved area of the extension. The indicative size of the soakaway shown on a drawing is some 300m². The percolation test results indicate a soakaway of approximately 130m² would be sufficient. **Condition 3.12.3** of the RD proposes that the licensee provide and

maintain a soak pit that satisfies the criteria of the UK Building Research Establishment, Soakaway Design, Digest 365 of 2007. This reflects the requirements of Condition 19 in the grant of planning permission register no. SA/60656.

6.5 WASTES GENERATED

Waste generated from the treatment of waste (including biostabilised waste, refuse derived fuel, material for onward recycling) will be managed in accordance with the conditions of the RD.

6.6 NOISE

There were 34 noise complaints made in 2014, there were no noise complaints in 2015 and none to-date in 2016. The likely causes of the complaints received by the Agency in 2014 were contributed to inadequate infrastructure and inadequate operational procedures/training. There was no tonal or impulsive noise emissions from the activity audible at any of the nearest residences during monitoring carried out in 2015. Noise monitoring results from 2015 for each of the four noise sensitive locations demonstrated that noise attributed to the activities at the installation were below the licence threshold. The dominant sources of noise in the area have been reported as originating from the traffic on the adjacent N2 road and the Knockcommon road.

A noise report was completed in order to assess the potential noise impacts associated with the biological treatment facility, CHP plant and refuse derived fuel facility. It was concluded that:

- the biomass furnace fan and activated carbon filter extraction fan are rated externally at 50 and 45 dB(A) respectively and this level of noise is predicted to be inaudible at the boundary of the installation;
- maximum noise levels predicted will occur during the construction phase of the development and will pertain for short periods only;
- the noise impact from the operation of the biological treatment facility and the CHP plant will have negligible noise impact by day and night on all residences;
- the noise levels at night should be inaudible at all residences; and
- as there is no increase in traffic being generated there should be no increase in road traffic noise at any residence.

Condition 3.15 requires the C&D Waste Recovery Area to be appropriately bunded to provide noise screening. **Condition 6.20.2** places restrictions on night-time activities at the installation. **Condition 8.12.7** requires that building doors are kept closed. **Condition 6.20.1** of the RD requires the licensee to carry out a noise survey annually in accordance with the methodology specified in the Agency publication '*Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)*'.

6.7 NUISANCE

The proposed biological treatment facility and refuse derived fuel facility have the potential to cause odour and attract vermin and flies due to the presence of organic waste. Local residents have expressed concern with regard to the potential for nuisance from these facilities. All activities at the installation are to be carried out indoors and an external contractor is employed to control vermin at the site. The RD includes standard conditions for the control of odour and vermin.

C&D waste recovery activities are currently being carried out in and around building 2. Submissions highlighted concerns with noise and dust emissions generated by activities in

this area and the adequacy of the control measures in place. The submissions also state that dust was noted in neighbouring fields, that dust laden storm water was a risk to local watercourses and questioned the suitability of the locations used for dust monitoring. To-date there has not been an incident notification logged for either dust or noise emissions. In 2014 there were 11 complaints made in relation to odour/smells and one complaint with regard to the installation being operated outside of the licensed hours of operation. In 2015 three complaints were made in total; two in relation to odour/smells and one in relation to vermin. No complaints have been logged by the Agency to-date in 2016.

Dust deposition levels at each of the five dust monitoring locations were under the licence threshold for 2015.

The nearest dust and noise monitoring locations in relation to the C&D recovery facility (monitoring location numbers AD3 and NSL4 respectively) will be relocated as shown in the drawing in Appendix 3 to take into account the change in the site boundary. These changes are reflected in **Condition 6.17** and **Schedule B.4** of the RD.

7. CONSIDERATION OF BEST AVAILABLE TECHNIQUES (BAT) AND BAT CONCLUSIONS

Section 86A(3) of the EPA Act 1992 as amended requires that the Agency shall apply BAT conclusions as a reference for attaching one or more conditions to a licence or revised licence (Article 14(3) of the IED). BAT for the installation was assessed against the BAT conclusions in the following documents:

- BREF 'Integrated Pollution Prevention and Control Reference Document on Best Available Techniques for the Waste Treatments Industries' (August 2006);
- Reference document on Best Available Techniques on Emissions from Storage (July 2006); and,
- Reference document on Best Available Techniques for Energy Efficiency (February 2009).

The existing BREF for the waste sector and subsequently BAT Conclusion Numbers 24(d), 27, 28(f), 36, 37, 38 and Section 4.1.4.7 (referenced in BATC No. 28(f)) recommend the processing of odourous waste in enclosed buildings fitted with suitable air extraction and treatment systems. The RD reflects these requirements and has specified odour emission limits on emissions to air from odourous areas.

The Waste Treatment BREF document is currently under review and the latest draft of this review is the *Best Available Techniques Document for Waste Treatment* (Draft 1) (December 2015). The *Final Draft BAT Guidance Note on Best Available Techniques for the Waste sector: Waste Transfer and Materials Recovery* (EPA, December 2011) is applicable to waste licenced activities. Both of the above documents recommend the chemical treatment of odourous air as a control measure to reduce odours where they cannot be prevented. Odour suppression units are available for use if required at the installation.

The Waste Treatment BREF also lists the BAT Conclusions for the preparation of solid waste fuels from non-hazardous waste (BATCs 122 – 125). These BAT conclusions require the sorting of waste to remove ferrous, non-ferrous and plastic waste fractions. It is also required to use a combination of systems to attain the correct size of waste fuel. The licensee has proposed to sort and separate out the recyclable fractions of value and the waste is shredded as part of the proposed operation after it exits the drier.

The site visit completed by the OEE on the 13th October 2014 was for the purposes of quantifying the amount of waste held on-site for the purposes of CRAMP costings. The RD requires the establishment of a waste storage plan which will tie in with the fire risk assessment to limit the number of designated storage areas, the contents of these areas and the maximum storage volume of each designated area.

The licensee reported the focus of their Environmental Policy in the 2015 Annual Environmental Report and this included their plan to reduce energy through effective education and awareness and the installation of energy efficient technology where appropriate. Condition 7 of the current licence requires an annual energy efficient audit at the installation and this is a requirement of the RD also.

The applicable BAT conclusion requirements are addressed through the technologies and techniques as described in the application and the standard conditions specified in the RD.

8. USE OF RESOURCES

In 2015 the installation used 4,053 MWhr of electricity and 244,147 litres of gas oil.

Virgin wood chip will be used as the fuel for the biomass furnace in the RDF/SRF facility.

There will be an increase in electricity consumption due to the electrical motors installed in the AD plant and additional yard lighting; however, this will be offset by the electricity generated in the installation's CHP plant.

Rainwater from the roof of building 4 will replace the groundwater that is currently abstracted for non-potable use.

9. REGIONAL WASTE MANAGEMENT PLAN

In *A Resource Opportunity – Waste Management Policy in Ireland (DOECLG 2012)* it is recognised that as the separate collection of organic waste increases nationally, there will be a need for adequate national infrastructure and capacity to recycle biodegradable waste.

The *Eastern-Midlands Region Waste Management Plan 2015 – 2021* supports the development of biological treatment capacity in the region, in particular composting and anaerobic digestion, by supporting the development of new facilities.

10. MEASURES TO PREVENT ACCIDENTS AND LIMIT THEIR CONSEQUENCES

The application details a range of measures that will help to prevent accidents at the installation and limit their consequences. These include:

- the installation's Accident Prevention Policy and Emergency Response Procedure are maintained;
- Staff are required to comply with on-site safety guidelines regarding access to and from the installation and on-site traffic movement;
- Staff are required to wear appropriate Personal Protective Equipment;
- The installation has been designed in accordance with the Safety, Health and Welfare at work (General Application) Regulations 2007: Part 8 Explosive Atmospheres at places of Work;
- A Hazard Identification study, a Hazard & Operability Study and an Explosion Protection document will be submitted for approval by the Health and Safety Authority before relevant activities commence; and
- Preparation of a Fire Prevention and Detection procedure which will take into account the Agency's guidance note on Fire Safety at Non-Hazardous Waste Sites and the UK Environment Agency's Technical Guidance Note TGN7-01 Reducing fire Risk at Sites Storing Combustible Materials.

The installation has a low record of incidents; however, there have been a number of incidents in relation to fire:

- The last incident logged was in 2014 as a result of a minor fire at the installation. A loading shovel went on fire in the garage located outside the licensed area.

- The Office of Environmental Enforcement (OEE) was notified of a serious fire (Rank 3) at the installation on 14 June 2012 which resulted in a significant incident response (Category 2). The fire was confined to Building 3.
- The installation has a history of two previous fire-related incidents, a minor fire (Rank 1) in November 2011 and a limited fire (Rank 2) in November 2010.

Condition 9 of the RD requires procedures to be maintained to prevent accidents, with an emphasis on preventing accidents with a possible impact on the environment and to respond to emergencies so as to minimise the impact on the environment. In addition, **Condition 8.20** of the RD sets out a requirement to develop and maintain a materials storage plan, which limits the size of stockpiles and the quantity of waste be stored in designated areas. The plan is required to include a fire quarantine area and any requirements arising from the Fire Risk Assessment required under **Condition 9.4**.

11. COMPLIANCE WITH EU DIRECTIVES

10.1 Industrial Emissions Directive (IED) (2010/75/EU)

The RD as drafted takes account of the requirements of the IED.

A baseline report was provided by the applicant. Diesel and gas oil, relevant hazardous substances, are stored and used at the installation.

Six soil samples were taken at the installation: two samples in the footprint of the proposed new biological treatment facility, two samples adjacent to the oil storage area and one sample directly south of the constructed wetland. These soil samples were tested for a range of aliphatic and aromatic compounds. The soil cores recovered from the borings were visually assessed and field screened for the presence of volatile organic compounds using a photoionization detector and no contamination of this nature was identified.

Groundwater was tested via three wells which were located north/up gradient of the installation, south/down-gradient of building 3 and south/down-gradient of building 4. These groundwater samples were tested for manganese, potassium, sodium, sulphate, chloride, ammoniacal nitrogen, a range of aliphatics, aromatics and volatile organic carbons.

Ammonia was detected in all three wells and exceeded the threshold value¹ in both down-gradient wells. Extractable Petroleum Hydrocarbons (EPH) were detected in the up-gradient well at levels which exceeded the threshold value; however, it was not detected in either down-gradient well.

Through this testing the baseline condition of the soil and groundwater at the installation has been confirmed with regard to relevant hazardous substances.

The requirement in **condition 8.6** of the RD to ensure that all waste storage and treatment activities are carried out in designated areas will minimise the risk of contamination of groundwater beneath the installation.

10.2 Waste Framework Directive (2008/98/EC)

The activity proposed to be licensed ensures compliance with the Directive as it will allow for waste to move up the waste hierarchy towards energy recovery and away from landfill. The requirements of articles 13 and 23 have been addressed in the drafting of the RD.

¹ EC Environmental Objectives (Groundwater) Regulations 2010

10.3 Water Framework Directive (2000/60/EC)

- European Communities Environmental Objectives (Surface Water) Regulations 2009, as amended.
- European Communities Environmental Objectives (Groundwater) Regulations 2010, as amended.

A number of measures have been included in the RD to prevent any significant impact on water quality, as described above in sections 6.3 and 6.4. The appropriate assessment shows that there will be no impact on water quality-dependent qualifying interests at European sites.

10.4 Environmental Liability Directive (2004/35/EC)

The licensee has agreed closure and ELRA costs for existing activities with the Agency. The licensee is engaged with the Agency on making financial provision under the existing licence.

Condition 10.2.1 requires the licensee to submit a revised Decommissioning Management Plan and **Condition 12.2.2** requires the submission of a revised Environmental Liabilities Risk Assessment (ELRA) to the Agency within three months of grant of the licence.

Condition 12.2.3 of the RD requires the licensee to make financial provision to cover any liabilities associated with the operation (including closure and decommissioning) prior to annual waste acceptance exceeding 165,000 tonnes and in any event within six months of the date of grant of this licence.

12. ENVIRONMENTAL IMPACT ASSESSMENT (EIA) DIRECTIVE (85/337/EEC, AS AMENDED)

The following section identifies, describes and assesses the likely significant direct and indirect effects of the proposed activity on the environment, as respects the matters that come within the functions of the Agency, for each of the following factors: human beings, flora, fauna, soil, water, air, climate, the landscape, material assets and cultural heritage.

The main mitigation measures proposed to address the range of predicted significant impacts arising from the activity have also been outlined. The cumulative impacts with other developments in the vicinity of the activity have also been considered, as regards the impacts of emissions from the activity. This section must be read in conjunction with the analysis carried out in all sections of this report.

11(a) Human Beings

Likely significant effect	Description of effect	Assessment addressed in section:
Odour	Disamenity from odour emissions due to licensed activities.	12(e)
Traffic	Traffic and its associated emissions, risks and disamenity effects.	12(a)(i)
Impact on air quality	Emission of odour. Emission of dust. Emission of substances used to mask odours and control flies.	12(e)

Noise	Disamenity from noise emissions due to licensed activities.	12(a)(ii)
Nuisance from vermin, flies and birds	Disamenity from vermin, fly and bird infestation due to licensed activities.	12(a)(iii)
Litter	Disamenity from litter due to licensed activities.	12(a)(i)
Visual impact	Spoiling of views.	12(g)
Major accidents	Emissions to air, ground and water bodies.	12(c), 12(d), 12(e)

Assessment of effects on human beings

12(a)(i) Traffic and litter

Waste will be transported to the installation by road. This is likely to create noise and possible dust nuisance and potentially escape of waste material onto roadways on the approaches to the installation. The volume of waste to be accepted at the installation and the hours of waste acceptance are not being increased by this licence review. A Traffic Impact assessment was completed by the licensee and it concluded that the overall impact of the increased traffic will be imperceptible.

Mitigation Measures

The following mitigation measures will reduce the likelihood of a negative impact on human beings from traffic and litter as regards matters that come within the functions of the Agency:

- **Condition 1.5** limits the hours within which the installation can accept waste and operate.
- **Condition 3.9** of the RD provides for wheel cleaning to be undertaken on all vehicles leaving the installation, as required, to ensure that no waste is carried offsite.
- **Condition 6.15** provides for litter and mud inspections in the immediate surroundings of the installation.
- **Condition 6.15.2** requires that all vehicles are covered.

Conclusion

Based on the above assessment and the mitigation measures in place, I am satisfied that there will not be significant effects on the environment from traffic resulting from activities at the installation as regards matters that come within the functions of the Agency.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

12(a)(ii) Noise

Noise emanating from the installation will be principally associated with the movement of vehicles and the operating of waste processing equipment. It is not anticipated that noise emissions associated with the proposed activities will be significantly greater, if at all greater, than those associated with currently licensed activities.

Overall the noise assessment, outlined in section 6.6 above, has confirmed that the development will not lead to a significant noise impact in the area and will comply with applicable limits in **condition 4.6** and **Schedule B.4** of the RD.

Mitigation Measures

Standard noise conditions and limit values have been set in the RD, which provides for noise monitoring to be undertaken and a periodic noise survey to be carried out in accordance with Agency guidance.

Conclusion

Based on the above assessment and the mitigation measures in place, I am satisfied that the likelihood of a negative impact from noise will be negligible.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

12(a)(iii) Nuisance from vermin, flies and birds

The presence of waste may attract vermin, flies and birds to the installation, which may cause nuisance to neighbours or adversely impact on flora and fauna in the vicinity of the installation.

Mitigation Measures

The following mitigation measures will reduce the likelihood of a negative impact from vermin, flies and birds:

- All odour-forming waste shall be promptly treated or removed from the installation (**Condition 8.12.2**);
- **Condition 6.18** requires the licensee to carry out daily inspections for nuisances caused by vermin, flies and birds.
- **Condition 6.19.1** requires the licensee to maintain and implement a programme for the control and eradication of vermin and fly infestations at the installation.
- RDF/SRF bales are to be inspected fortnightly for damage and any damage that's detected shall be repaired within 24 hours (**Condition 8.12.3**);
- **Condition 5.7** prohibits the licensee from allowing flies, vermin or birds to impair or interfere with amenities or the environment at the installation or beyond the installation boundary; and

Conclusion

Based on the above assessment and mitigation measured in place, I am satisfied that there will not be significant effects on the environment from vermin, flies and birds.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

12(b) Flora and Fauna

Likely significant effect	Description of effect	Assessment addressed in section:
Impact on air quality	Emission of odour. Emission of dust. Emission of substances used to mask odours and control flies.	12(e)
Impact on surface water quality	Emissions of contaminated stormwater or firewater to the southern drain.	12(d)
Noise	Disturbance due to noise emissions	12(a)(ii)
Vermin, flies and birds	Disturbance of local flora and fauna due to attraction of pests and rodents.	12(a)(iii)
Adverse impacts on SACs and SPAs	Emissions of contaminated storm water, treated surface run-off or firewater to the southern drain.	12(b)(i)

Assessment of Effects on Flora and Fauna

12(b)(i) Adverse impacts on the Lower River Suir SAC

Storm water run-off from the concrete surfaces at the existing installation is the only authorised discharge from the installation to the southern land drain. Prior to discharge this run-off is treated via a silt trap, oil interceptor and a constructed wetland.

As discussed in section 12 of this report, the licensee will be prohibited from discharging any contaminated run-off to the southern land drain and subsequently the River Boyne and River Blackwater SAC (site code 002299), River Boyne and River Blackwater SPA (site code 004232), Boyne Estuary SPA (site code 004080) and Boyne Coast and Estuary SAC (site code 001957).

Mitigation measures

The following mitigation measures will further reduce the likelihood of adverse impacts on SACs and SPAs:

- Currently run-off from the existing external concrete areas is diverted to a holding tank prior to dispatch off-site for disposal. This run-off will be diverted to the constructed wetland for treatment prior to discharge to the southern land drain and the the constructed wetland is subject to a test programme.
- **Schedule B.2** sets emission limit values on emission to water from location SW1. There are no other surface water discharges from the installation to the southern land drain.
- **Schedules C.2.1** requires the monitoring of the treated run-off for a range of parameters.
- **Condition 3.22.3** requires contaminated storm water to be diverted for collection if contaminated with fire-water. **Condition 5.4** states that contaminated storm water shall not be discharged to surface water courses.
- **Condition 3.27** requires the sanitary effluent treatment system to satisfy the criteria set out in the *Code of Practice Wastewater Treatment and Disposal Systems*

Serving Single Houses (p.e < 10) or Wastewater Treatment Manuals: treatment Systems for Small Communities, Business, Leisure Centres and Hotels, published by the Environmental Protection Agency.

- **Condition 3.12.3** requires the soak pit for the treatment of storm water run-off for the proposed extension to satisfy the criteria set out in the UK Building Research Establishment, Soakaway Design, Digest 365 of 2007, or equivalent as agreed by the Agency.
- **Schedule B.1** sets emission limits values on all emissions to air from the installation to ensure these emissions do not exceed the ambient standard outside the installation's site boundary.

Conclusion

I am satisfied that based on the above assessment and the mitigation measures proposed will prevent an occurrence of a significant adverse effect on SACs and SPAs.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

12(c) Soil

Likely significant effect	Description of effect	Assessment addressed in section:
Impact on soil.	Contamination of soil due to leachate leakage and lack of containment. Contamination of soil due to accidental discharge of substances other than leachate.	12(d)(i)

Assessment of Effects on Soil

See assessments documented in sections 12(d)(i) below.

Conclusion

I am satisfied that there will not be significant effects on soil from the licensed activities at the installation.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

12(d) Water

Likely significant effect	Description of effect	Assessment addressed in section:
Impact on surface water.	Contamination of surface water due to lack of containment of leachate, contaminated run-off and liquid waste. Contamination of surface water due to	12(d)(i)

	accidental discharge of substances.	
Impact on groundwater.	Contamination of groundwater due to lack of containment of leachate, contaminated run-off and liquid waste. Contamination of groundwater due to accidental discharge of substances.	12(d)(i)
Major accidents	Emissions to surface water of fire water. Emissions to surface water due to failure of containment measures for leachate, contaminated run-off and liquid waste.	12(d)(i)

Assessment of Effects on Water

12(d)(i) Impact on surface water and groundwater

There are no process emissions to surface water.

The only discharge to water authorised by the licence currently is of storm water at location SW1. There is currently no discharge at this point as all surface water from paved areas is being tankered off-site. Constructed wetlands have been constructed and will treat this water prior to emission via SW1. This revision of the licence does not make any changes to the emission limit values currently specified for this discharge point.

Rain water falling on the extension will not be discharged to the southern drain via SW1. As discussed in section 6.3 rain water falling on paved areas of the extension will be routed to a soakaway.

The subsoils beneath the installation comprise brown clay to approximately 1m, which is underlain by grey/black clay. Subsoils are at least 10-12m deep. The site is also underlain by the Balrickard Formation which comprises coarse sandstone and shale.

Diesel fuel, fly control chemicals, percolate and leachate from waste and bales are likely to be in contact with the floor surfaces of the installation. Due to the floors being fully concreted it is unlikely that any of these substances will permeate the floor and impact on the ground and groundwater below the installation.

In the event of fire at the installation, the volume of water used to fight the fire could be significant depending on the amount of waste affected.

Mitigation measures

The following mitigation measures will further reduce the likelihood of adverse impacts on the surface water and groundwater:

- General conditions for storm water and run-off management, including daily visual inspection, provision of silt traps and oil interceptors.
- **Condition 3.12.3** of the RD proposes that the licensee provide and maintain a soak pit that satisfies the criteria of the UK Building Research Establishment, Soakaway Design, Digest 365 of 2007.
- **Condition 6.1** requires a test programme for the constructed wetland.
- **Schedule B.2** requires emission to the southern land drain from the constructed wetland to below specific emission limit values for BOD, suspended solids and total ammonia.
- **Condition 8.12** requires regular cleaning of plant and the floors of the treatment areas.

- Bales shall be inspected fortnightly for damage and any damage that's detected shall be repaired within 24 hours (**Condition 8.18.6**).

In relation to the use of chemicals at the installation, **Condition 3.19** of the RD requires the bunding of all storage areas. The volume of fly treatment chemicals in use at any one time will be small and the risk of leakage to ground is minimal.

Condition 2.2.2.14 of the RD requires that a maintenance programme, inclusive of preventative maintenance, is implemented and this will relate to vehicles used within the licensed installation and will minimise the risk of fuel leakage from machines.

With regard to fire water, the prevention of fire is the principal mitigation measure. In particular **condition 8.20** of the RD requires that a waste and materials storage plan is put in place and that all waste storage practices conform to the plan. The plan is to be to the Agency's satisfaction at all times and will be amended if the Agency so instructs. The purpose of the plan is to ensure that waste is stored in a manner that provides to the extent possible for fire prevention and prevention of the spread of fire. **Condition 3.22** of the RD requires the licensee to carry out a risk assessment to determine if the activity should have a fire-water retention facility.

Conclusion

I am satisfied that based on the above assessment and the mitigation measures proposed will prevent an occurrence of a significant adverse effect on surface waters and groundwater.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

12(e) Air

Likely significant effect	Description of effect	Assessment addressed in section:
Impact on air quality.	Emission of odour. Emission of dust. Emission of substances used to mask odours and control flies.	12(e)(i)
Major accidents	Emissions to the local atmosphere as a result of fire.	12(e)(ii)

Assessment of Effects on Air

12(e)(i) Impact on air quality

Emissions of odour are likely to have the greatest potential impact on localised air quality, in particular in causing odour nuisance and distress to neighbours.

Dust emissions can be generated by the movement of traffic during dry weather and the treatment of construction and demolition waste. Minimising dust formation is mainly a function of good housekeeping at the installation and keeping the concrete surface in a clean condition.

A fire at the installation will result in smoke emissions into the local environment.

Mitigation measures

The following mitigation measures will reduce the likelihood of adverse impacts on air quality:

- General conditions for odour and dust management and emission limit values for the emissions of odour from the biofilters, the carbon filter and the biomass furnace.
- To prevent emissions of dust, **Condition 6.16.4** of the RD requires areas used by vehicles to be sprayed with water to minimise dust nuisance.
- **Condition 6.16.1** requires periodic odour impact assessments.
- **Condition 3.15** requires all areas used for the treatment and storage of construction and demolition waste and materials recovered from construction and demolition waste to be enclosed.
- **Condition 6.1.2** requires a test programme to be prepared for any new abatement equipment.
- **Condition 8.20** requires the development of a waste and materials storage plan.

With regard to smoke, the prevention of fire is the principal mitigation measure. In particular **condition 8.20** of the RD requires that a waste storage plan is put in place and that all waste storage practices conform to the plan. The plan is to be to the Agency's satisfaction at all times and will be amended if the Agency so instructs. The purpose of the plan is to ensure that waste is stored in a manner that, amongst other things described in section 10 above, provides to the extent possible for fire prevention and prevention of the spread of fire.

Conclusion

I am satisfied that based on the above assessment and the mitigation measures proposed will prevent an occurrence of a significant adverse effect on air quality.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

12(f) Climate

Likely significant effect	Description of effect	Assessment addressed in section:
Release of climate altering substances.	Emissions of greenhouse gases from vehicles – forklifts and other vehicles.	12(f)(i)

Assessment of Effects on Climate

12(f)(i) Impact on climate

The emission of greenhouse gases from the use of forklifts and other vehicles at the installation will be minimal.

Mitigation measures

Condition 7.1 of the RD requires a periodic audit of the energy efficiency of the site. **Condition 2.2.2.14** of the RD requires that a maintenance programme, inclusive of preventative maintenance, is implemented and this will relate to vehicles used within the licensed installation.

Conclusion

I am satisfied that based on the above assessment and the mitigation measures proposed will prevent an occurrence of a significant adverse effect on climate.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

12(g) Landscape, Material Assets and Cultural Heritage

Likely significant effect	Description of effect	Assessment addressed in section:
Visual impact on landscape.	The landscape sensitivity is classified as moderate by Meath County Council. It was concluded that the industrial appearance of the existing buildings immediately to the west of the development area have a good ability to absorb further development without causing severe landscape or visual impacts. Screening is being provided by surrounding hedgerows.	-
Impact on material assets, cultural heritage, archaeology and architecture.	It was concluded in the impact assessment that the installation would not have any adverse impact on material assets and resource consumption. It was found that the development would have a beneficial impact on resource consumption by reducing reliance on fossil fuels. There is no record of any archaeological features or protected structures within the proposed extension area. There is no potential for the proposed development to have an adverse impact on archaeological artefacts, architecture, material assets or cultural heritage.	-

12(h) Interaction of effects

I have considered the interaction between the factors referred to in Tables (a) to (g) above and the interaction of the likely effects identified.

The interaction between factors as a results of the operation of the installation are summarised below:

	Human beings	Flora and fauna	Soil	Water	Air	Climate	Material assets, landscape, cultural heritage

Human beings		✓	✓	✓	✓	✓	✓
Flora and fauna			✓	✓	✓		
Soil				✓			✓
Water					✓		✓
Air						✓	
Climate							

The most significant interactions, as addressed in the earlier parts of this report, are as follows:

Human beings and air:

Odour and dust may arise at the installation and have a potential to impact on human beings beyond the installation boundary. As demonstrated in section 12(e)(i) above, such impacts are considered not likely to be significant. If the activity is carried out in accordance with the RD and the conditions attached it will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

Surface water and ecology:

Surface water run-off from the existing site will discharge to a drain on the southern boundary of the installation via the constructed wetland. The drain is a tributary of the River Boyne, which it joins approximately 3km from the installation. The River Boyne is an SAC and there is potential for contaminants in the run-off to impact on the river eco-system.

As demonstrated in section 12(b) and (d) above, such impacts are considered not likely to be significant. If the activity is carried out in accordance with the RD and the conditions attached it will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

Based on the assessment in parts 12(a) to 12(h) above, and the mitigation measures proposed (including the relevant conditions in the licence), I do not consider that the interactions identified are likely to cause or exacerbate any potentially significant environmental effects of the activity.

13. APPROPRIATE ASSESSMENT

The installation itself is not within a designated area and the RD does not authorise any process discharges into a European Site. The RD provides for a storm water discharge from the yard via a constructed wetland to the drain at the southern end of the installation. This drain is not designated. As shown in Table 3 below there are four European sites in proximity to the installation:

Table 3: Proximity of local designated sites.

Natura 2000 Site	Site Code	Direction from Installation	Approximate Distance from the Installation (Km)
River Boyne and River Blackwater SAC ^{Note 1}	002299	East	5.7
River Boyne and River Blackwater SPA ^{Note 2}	004232	East	5.7
Boyne Estuary SPA	004080	East	19.08
Boyne Coast and Estuary SAC	001957	East	19.92

Note 1: Special Area of Conservation (SAC).

Note 2: Special Protection Area (SPA).

The southern boundary of the installation is adjacent to the land drain to which the current licence authorises a storm water discharge. This land drain connects to the Roughgrange River which is located approximately 430m from the installation. Neither of these surface water features are designated sites. The Roughgrange River flows into the River Boyne and at this confluence point is where the first interaction with designated sites occurs approximately 5.7km from the installation. The first designated sites encountered at this confluence are the River Boyne and River Blackwater SAC and SPA (site codes 002299 and 004232). Approximately 14.5km further downstream the River Boyne flows into the Boyne Estuary SPA and the Boyne Coast and Estuary SAC (site codes 004080 and 001957). Refer to Appendix 4 for an overview of the location of each designated site in relation to the installation.

Appendix 5 lists the European Sites assessed, the associated qualifying interests and conservation objectives.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the proposed activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at River Boyne and River Blackwater SAC and SPA, Boyne Estuary SPA and the Boyne Coast and Estuary SAC.

The proposed activities are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it cannot be excluded, on the basis of objective information, that the proposed activities, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the proposed activities was required, and for this reason determined to require the applicant to submit a Natura Impact Statement.

The reasons for which the Agency determined that a Natura Impact Statement was required are as follows:

- It is proposed to discharge surface water to the southern land drain;
- A constructed wetland has been put in place to treat surface water prior to discharge; however, this has not yet been commissioned for use;

- The southern drain is linked to the Roughgrange River which in turn flows into the River Boyne. The River Boyne forms part of the River Boyne and River Blackwater SAC (Site code 002299).

An Inspector's Appropriate Assessment has been completed and has determined, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the proposed activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular River Boyne and River Blackwater SAC (site code 002299), River Boyne and River Blackwater SPA (site code 004232), Boyne Estuary SPA (site code 004080) and Boyne Coast and Estuary SAC (site code 001957), having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with this recommended determination and the conditions attached hereto for the following reasons:

- The installation is not located within a European Site.
- There will be no process discharge from the installation to the European Sites.
- Currently run-off from the existing external concrete areas is diverted to a holding tank prior to dispatch off-site for disposal. This run-off will be diverted to the constructed wetland for treatment prior to discharge to the southern land drain when the constructed wetland has been validated by the test programme required under the current licence.
- **Schedule B.2** sets emission limit values on emission to water from location SW1. There are no other surface water discharges from the installation to the southern land drain.
- **Schedules C.2.1** requires the monitoring of the treated run-off for a range of parameters.
- **Condition 3.22.3** requires contaminated storm water to be diverted for collection if contaminated with fire-water. **Condition 5.4** states that contaminated storm water shall not be discharged to surface water courses.
- **Condition 3.27** requires compliance with the *Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (p.e < 10)*, published by the Environmental Protection Agency.
- **Condition 3.12.3** requires the soak pit for the treatment of storm water run-off for the proposed extension to satisfy the criteria set out in the UK Building Research Establishment, Soakaway Design, Digest 365 of 2007, or equivalent as agreed by the Agency.
- **Schedule B.1** sets emission limits values on emissions to air from the installation to ensure these emissions do not exceed the ambient standard outside the installation's site boundary.

In light of the foregoing reasons no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of these European Sites: River Boyne and River Blackwater SAC (site code 002299), River Boyne and River Blackwater SPA (site code 004232), Boyne Estuary SPA (site code 004080) and Boyne Coast and Estuary SAC (site code 001957).

14. CROSS OFFICE LIAISON

I have consulted with the OEE and most recently with Mr Cathal Gahan of the Office of Environmental Enforcement in May 2016 who confirmed that the level of complaints is currently low for the installation. The fire incident in building 3 was discussed and the recommendation to include a condition that requires a Fire Water Retention Risk Assessment in the RD.

15. SITE VISIT

On 16 February 2011, I conducted a site visit at the installation in the company of Mr David Naughton (Environmental Manager) and Mr Jim McGovern (Project Manager) of Panda Waste Services Ltd.

Mr Naughton and Mr McGovern gave a detailed plant tour and the following was noted:

- The area designated for a civic amenity facility is currently being used as a car park.
- All mechanical separation equipment had been relocated from building 1 to building 3 but was not in operation.
- The composting tunnels were not in use at building 1. It was confirmed that these tunnels will be used when the biological treatment facility (BTF) is operational.
- Building 2 was operational.
- No works had started in the area proposed for extension.

A number of underground tanks were highlighted during the site visit.

16. FIT & PROPER PERSON ASSESSMENT

The Fit & Proper Person test requires three elements of examination:

(i) Technical Ability

This installation has been licensed by the Agency since the 31st July 2002.

Condition 2.1.2 requires the licensee to ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience as required and shall be aware of the requirements of this licence.

(ii) Legal Standing

Non-compliances:

Twelve non-compliances have been logged by the OEE since 2009 as shown in Table 4 below.

Table 4: Non-compliances recorded by the OEE from 2009 – 2016

Year	Non-Compliance Type	Non-compliances	Source
2009	Waste management	3	Audits
2010	Non-notification of incidents	1	Incident notification
2011	Failure to provide/install infrastructure	1	Audits
	Nuisances	1	Site Visits
2012	Documentation and procedures	2	Audit, site visit
	Timber shredder located in the yard.		
2013	N/A	N/A	N/A
2014	N/A	N/A	N/A
2015	An area of land along the western boundary of the installation designated for the constructed	3	Site visit

	wetland was observed to be contaminated with rubble, tiles, ceramics, plastic, glass, wood and metal rebar. The disposal of this waste onsite is not authorised under Waste Licence Reg. No. W0140-03.		
	A quantity of SRF/RDF bales were observed stored in the yard external to building 1. The storage of SRF/RDF bales outdoors in this area is not approved by the Agency.		
	Neither the installation manager nor environmental manager were at the installation upon arrival. No alternative personnel were made available to accompany the Agency inspector on an inspection of the installation.		
18 th January 2016	The licensee has not made financial provision to cover environmental liabilities to the satisfaction of the Agency as required in Condition 12.2.3.	1 non-compliance recorded to-date.	

Complaints:

Approximately 144 complaints have been received by the OEE since 2009:

Year	No. Of Complaints
2009	3
2010	6
2011	5
2012	34
2013	47
2014	46
2015	3
2016	None to-date.

The complaints related to odour and air pollution issues, noise, dust, vermin and other issues. The complaints received in 2015 were in relation to odour (2) and vermin.

Convictions:

On the 15th September 2009, Nurendale Ltd, trading as Panda Waste Services, was convicted at Navan District Court of an offence under Section 39(1) and 39(9) of the Waste Management Acts 1996, as amended. This conviction was in relation to a breach of its previous licence (W0140-02) by accepting a quantity of waste that exceeded the maximum annual tonnage permitted on 31 December 2007.

(iii) Financial Standing

As discussed in section 10.4 the licensee has agreed closure and ELRA costs for existing activities with the Agency. The licensee is engaged with the Agency on making financial provision under the existing licence.

Condition 12.2.3 of the RD requires the licensee to make financial provision to cover any liabilities associated with the operation (including closure and decommissioning) prior to annual waste acceptance exceeding 165,000 tonnes and in any event within six months of the date of grant of this licence.

It is my view, and having regard to the conditions of the RD, that the applicant can be deemed a Fit & Proper Person for the purpose of this licence.

17. RECOMMENDED DETERMINATION (RD)

The RD if granted will authorise the acceptance of biodegradable waste for processing at the biological treatment facility, construction and demolition waste for recycling and municipal waste for recovery as solid recovered fuel, amongst other processes listed in **Schedule A.1** of the RD.

I am satisfied that the conditions set out in the RD will adequately address all emissions from the installation and will ensure that the carrying on of activities in accordance with the conditions will not cause environmental pollution.

18. CHARGES

The charge levied by OEE in 2016 is €14,118 and this is specified in the RD based on the enforcement effort predicted for the installation.

19. RECOMMENDATION

I recommend that a Proposed Determination be issued subject to the conditions and for the reasons as drafted in the RD.

Signed



Caroline Murphy

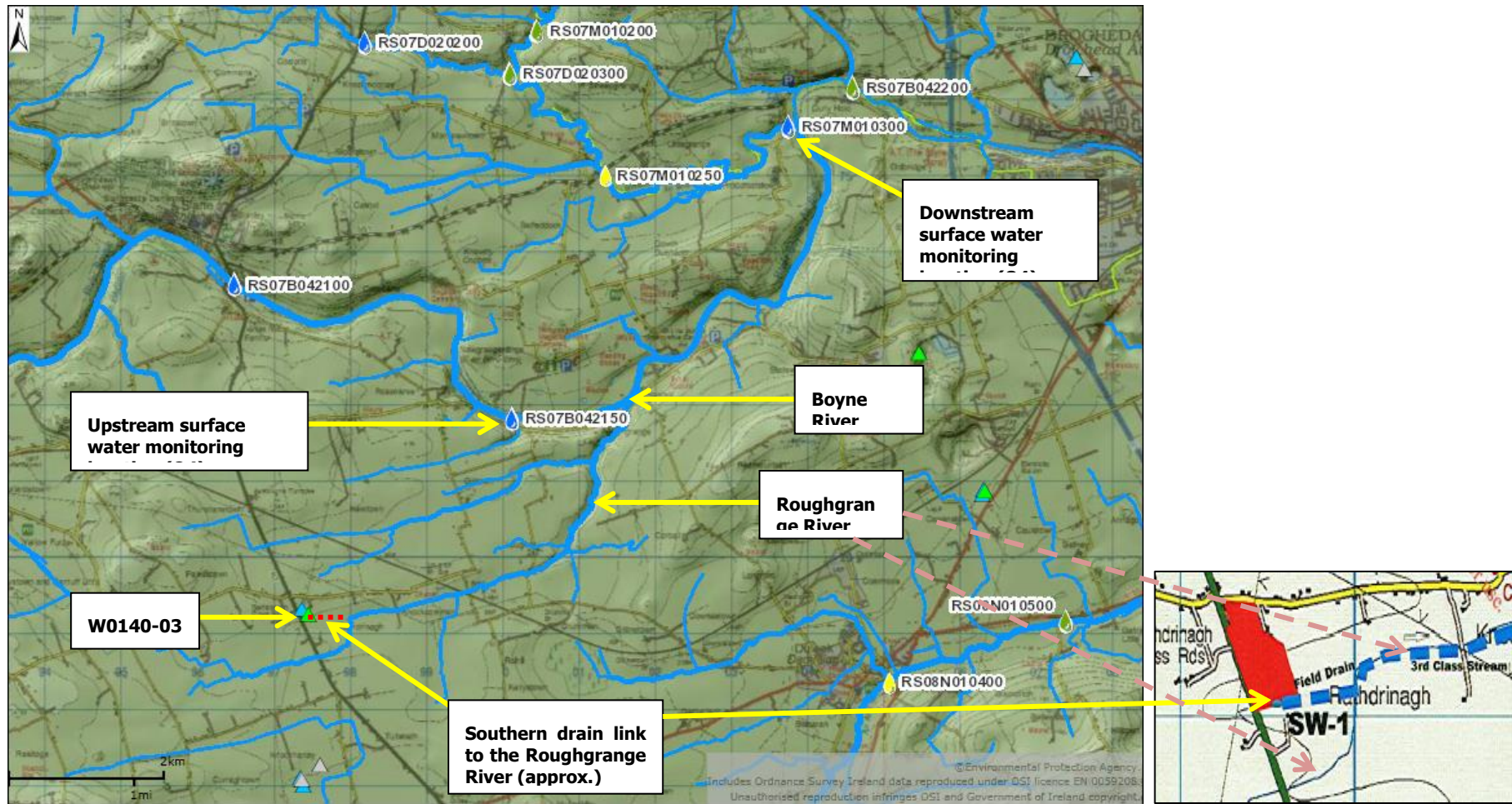
Procedural Note

In the event that no objections are received to the Proposed Determination of the application, a licence will be granted in accordance with Section 87(4) of the Environmental Protection Agency Acts 1992 as amended as soon as may be after the expiration of the appropriate period.

APPENDIX 2

APPENDIX 2

Figure 7: Overview of surface waters associated with the installation.

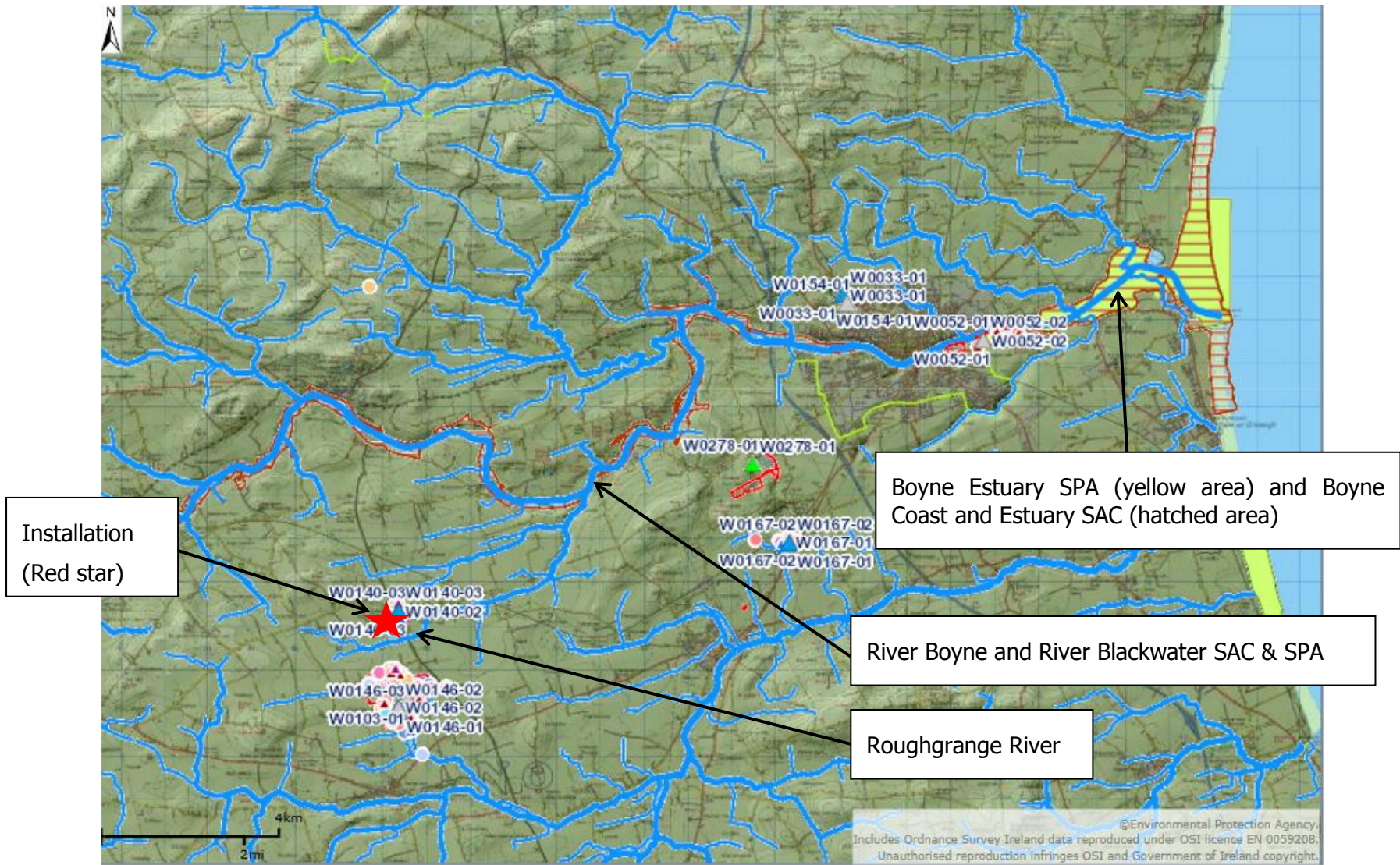


APPENDIX 3

Figure 8: Emission points (Drawing No. 3, Revision C).



Appendix 4



Appendix 5

Table 5: Assessment of the effect(s) of the proposed activities on European site(s) and proposed mitigate measures.

European Site (site code):	River Boyne and River Blackwater SAC (002299)							
Distance/ Direction from discharge(s)	The licence currently provides for the discharge of surface water and six point source emissions to air from the installation. The installation is located approximately 5.7km from the above SAC via surface water linkages and approximately 3.5km overland.							
Conservation objectives:	As per NPWS (2015) Conservation objectives for River Boyne and River Blackwater SAC [002299]. Generic Version 4.0. Department of Arts, Heritage and the Gaeltacht (dated 13/2/2015).							
Qualifying interests (* denotes a priority habitat)	Assessment							
Habitats (water dependant ^{Note 1}):	Emission to Water							
<table border="0"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>7230</td> <td>Alkaline fens</td> </tr> <tr> <td>91E0</td> <td>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)*</td> </tr> </tbody> </table>	Code	Description	7230	Alkaline fens	91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*	<p>The Water Framework Directive River risk score for the Roughgrane River is possibly <i>at risk of not achieving good status</i> and the score for the portion of the River Boyne to which this river merges is <i>at risk of not achieving good status</i>.</p> <p>There are no <i>Margaritifera</i> locations in the Roughgrane or Boyne Rivers downstream of the installation.</p> <p>A drinking water abstraction is located on the Roughgrange River within the SAC and approximately 50m from the confluence with the River Boyne.</p> <p>Any change in water quality has the potential to impact on water dependant habitats and species.</p>	
Code	Description							
7230	Alkaline fens							
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*							
Species (water dependant ^{Note 1}):	Conclusion:							
<table border="0"> <thead> <tr> <th>Code</th> <th>Common Name</th> <th>Scientific Name</th> </tr> </thead> <tbody> <tr> <td>1099</td> <td>River Lamprey</td> <td><i>Lampetra fluviatilis</i></td> </tr> </tbody> </table>	Code	Common Name	Scientific Name	1099	River Lamprey	<i>Lampetra fluviatilis</i>	<p>The only emission to water authorised from the installation is of surface water run-off which will be treated via a constructed wetland, silt trap and oil separator. This run-off is currently being tankered off-site for treatment.</p> <p>This discharge from location SW1 is required to be under emission limit values for specific parameters set in accordance with <i>Schedule B.1</i>.</p> <p>Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and</p>	
Code	Common Name	Scientific Name						
1099	River Lamprey	<i>Lampetra fluviatilis</i>						

1106	Atlantic Salmon	<i>Salmo salar</i>	preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.
1355	Otter	<i>Lutra lutra</i>	<p>Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.</p> <p>This shall ensure any discharge will comply with the requirements of the <i>European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended</i>, and as a consequence contribute towards the receiving waters achieving 'good' status as required under the Water Framework Directive. Therefore, protecting the qualifying interests of the European sites.</p> <p><u>Emission to Air</u></p> <p>There six point source emissions to air associated with this installation.</p> <p>Dust is also an emission associated with construction and demolition waste recovery.</p> <p>Dust deposition will be monitored at locations just inside the installation boundary and air emissions will be monitoring at the point sources. This monitoring is required to demonstrate that emissions limit levels specified in the licence are not exceeded. Preventative and corrective measures are required to be put in place for any exceedance of emission limit levels at these locations. The risk of dust deposition and air emissions levels impacting the qualifying interests of the SAC is low.</p> <p>Conclusion:</p> <p>Condition 5.7 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary.</p> <p><i>Schedule C.5</i> of the RD requires dust deposition to be monitored quarterly. <i>Schedule B.1.5</i> of the RD sets a dust deposition limit which the results of this monitoring should be under.</p> <p><i>Schedules B.1.1 – B.1.4</i> of the RD sets emission limit values for specific parameters for each of the 6 emissions to air from the installation. <i>Schedules C.1.1 – C.1.2</i> of the RD sets control and monitoring requirements for each of these point emissions to air.</p> <p>Condition 9.3 requires an exceedance of an emission limit value to be reported as an incident.</p> <p>Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and</p>

The site was not designated for its wintering populations of whooper swan, however, the population has been noted as being of national and at times international importance.

	<p>preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.</p> <p>Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.</p> <p>The above measures will protect the SAC from dust deposition and air emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p><u>Noise emissions:</u></p> <p>Noise is an emission associated with construction and demolition waste recovery.</p> <p>Noise will be monitored at noise sensitive locations and this monitoring is required to demonstrate that noise levels are under the levels specified in the licence. Preventative and corrective measures are required to be put in place for an exceedance of noise levels at these locations. The risk of noise levels impacting the qualifying interests of the SAC is low.</p> <p>Conclusion:</p> <p>Condition 6.20 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation.</p> <p>Condition 4.6 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5.7 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations.</p> <p>Condition 6.19 and <i>Schedule C.5</i> of the RD requires noise levels to be monitored annually and quarterly respectively. <i>Schedule B.4</i> of the RD sets daytime, evening time and night time noise emission limits which the results of this monitoring should be under. Condition 9.3 requires an exceedance of an emission limit value to be reported as an incident.</p> <p>Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.</p> <p>Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.</p> <p>The above measures will protect the SAC from noise emissions associated with the activity;</p>
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	<p>therefore, protecting the qualifying interests of the European sites.</p> <p>Potential for Accidents to Arise</p> <p>There is the potential for accidents and emergency situations arising at the installation resulting in partially treated or untreated surface water run-off discharging to the southern drain or air emissions discharging to atmosphere. Such incidents or events could lead to the discharge of run-off or air which exceeds emission limit values, which could potentially impact the Roughgrange River and the local atmosphere respectively.</p> <p>An accidental discharge of untreated surface water run-off or air is unlikely as Condition 2.2.2.14 requires a maintenance programme which includes preventative maintenance. Condition 6.11 requires silt traps and oil separators to be inspected weekly and desludged as necessary. The gas flare will function as a standby for the gas utilisation engines.</p> <p>Taking the above into consideration the discharge of untreated storm water into the southern drain or the emission of untreated air to atmosphere is unlikely and the overall risk is low.</p> <p>Conclusion:</p> <p>Reference the conclusion in the <i>Emission to Water</i> and Emission to Air above.</p> <p>The above measures will protect the SAC from accidents associated with the activity; therefore, protecting the qualifying interests of the European sites.</p>
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Note 1: Environmental RTDI Programme 2000 - 2006. Water Framework Directive – Water Status: Identification and Ranking of Nature Conservation Designated Areas (2002-W-DS-10) Final Report.

Table 6: Assessment of the effect(s) of the proposed activities on European site(s) and proposed mitigate measures.

European Site (site code):	River Barrow and River Nore SPA (004232)
Distance/ Direction from discharge(s)	The licence currently provides for the discharge of surface water and six point source emissions to air from the installation. The installation is located approximately 5.7km from the above SPA via surface water linkages and approximately 3.5km overland.
Conservation	As per NPWS Conservation objectives for River Barrow and River Nore SPA [004232]. Version 4.0. Department of Arts, Heritage

objectives:			and the Gaeltacht (dated 13/05/2015).
Qualifying interests			Assessment
Species (water dependant ^{Note 1}):			Emission to Water
Code	Common Name	Scientific Name	The Water Framework Directive River risk score for the Roughgrane River is possibly <i>at risk of not achieving good status</i> and the score for the portion of the River Boyne to which this river merges is <i>at risk of not achieving good status</i> .
A229	Kingfisher	<i>Alcedo atthis</i>	There are no <i>Margaritifera</i> locations in the Roughgrane or Boyne Rivers downstream of the installation. A drinking water abstraction is located on the Roughgrange River adjacent to the SPA and approximately 50m from the confluence with the River Boyne. Any change in water quality has the potential to impact on water dependant habitats and species.
			Conclusion: The only emission to water authorised from the installation is of surface water run-off which will be treated via a constructed wetland, silt trap and oil separator. This run-off is currently being tankered off-site for treatment. This discharge from location SW1 is required to be under emission limit values for specific parameters set in accordance with <i>Schedule B.1</i> . Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach. Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. This shall ensure any discharge will comply with the requirements of the <i>European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended</i> , and as a consequence contribute towards the receiving waters achieving 'good' status as required under the Water Framework Directive. Therefore, protecting the qualifying interests of the European sites.
			Emission to Air

There six point source emissions to air associated with this installation.

Dust is also an emission associated with construction and demolition waste recovery.

Dust deposition will be monitored at locations just inside the installation boundary and air emissions will be monitoring at the point sources. This monitoring is required to demonstrate that emissions limit levels specified in the licence are not exceeded. Preventative and corrective measures are required to be put in place for any exceedance of emission limit levels at these locations. The risk of dust deposition and air emissions levels impacting the qualifying interests of the SPA is low.

Conclusion:

Condition 5.7 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary.

Schedule C.5 of the RD requires dust deposition to be monitored quarterly. *Schedule B.1.5* of the RD sets a dust deposition limit which the results of this monitoring should be under.

Schedules B.1.1 – B.1.4 of the RD sets emission limit values for specific parameters for each of the 6 emissions to air from the installation. *Schedules C.1.1 – C.1.2* of the RD sets control and monitoring requirements for each of these point emissions to air.

Condition 9.3 requires an exceedance of an emission limit value to be reported as an incident.

Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.

Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.

The above measures will protect the SPA from dust deposition and air emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.

Noise emissions:

Noise is an emission associated with construction and demolition waste recovery.

Noise will be monitored at noise sensitive locations and this monitoring is required to demonstrate that noise levels are under the levels specified in the licence. Preventative and corrective measures are required to be put in place for an exceedance of noise levels at these locations. The risk of

noise levels impacting the qualifying interests of the SPA is low.

Conclusion:

Condition 6.20 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation.

Condition 4.6 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5.6 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations.

Condition 6.20 and *Schedule C.5* of the RD requires noise levels to be monitored annually and quarterly respectively. *Schedule B.4* of the RD sets daytime, evening time and night time noise emission limits which the results of this monitoring should be under. Condition 9.3 requires an exceedance of an emission limit value to be reported as an incident.

Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.

Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.

The above measures will protect the SPA from noise emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.

Potential for Accidents to Arise

There is the potential for accidents and emergency situations arising at the installation resulting in partially treated or untreated surface water run-off discharging to the southern drain or air emissions discharging to atmosphere. Such incidents or events could lead to the discharge of run-off or air which exceeds emission limit values, which could potentially impact the Roughgrange River and the local atmosphere respectively.

An accidental discharge of untreated surface water run-off or air is unlikely as Condition 2.2.2.14 requires a maintenance programme which includes preventative maintenance. Condition 6.11 requires silt traps and oil separators to be inspected weekly and desludged as necessary. The gas flare will function as a standby for the gas utilisation engines.

Taking the above into consideration the discharge of untreated storm water into the southern drain

	<p>or the emission of untreated air to atmosphere is unlikely and the overall risk is low.</p> <p>Conclusion:</p> <p>Reference the conclusion in the <i>Emission to Water</i> and Emission to Air above.</p> <p>The above measures will protect the SPA from accidents associated with the activity; therefore, protecting the qualifying interests of the European sites.</p>
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Note 1: Environmental RTDI Programme 2000 - 2006. Water Framework Directive – Water Status: Identification and Ranking of Nature Conservation Designated Areas (2002-W-DS-10) Final Report.

Table 7: Assessment of the effect(s) of the proposed activities on European site(s) and proposed mitigate measures.

European Site (site code):	Boyne Estuary SPA (004080)		
Distance/ Direction from discharge(s)	The licence currently provides for the discharge of surface water and six point source emissions to air from the installation. The installation is located approximately 19km from the above SPA via surface water linkages and approximately 14.6km overland.		
Conservation objectives:	As per NPWS Conservation Objectives Series for Boyne Estuary SPA [004080]. Version 1.0. Department of Arts, Heritage and the Gaeltacht (dated 26/02/2013).		
Qualifying interests		Assessment	
Species (water dependant ^{Note 1}):		<u>Emission to Water</u>	
Code	Common Name	Scientific Name	<p>The Water Framework Directive River risk score for the Roughgrane River is possibly <i>at risk of not achieving good status</i> and the score for the portion of the River Boyne to which this river merges is <i>at risk of not achieving good status</i>.</p> <p>There are no <i>Margaritifera</i> locations in the Roughgrane or Boyne Rivers downstream of the installation.</p> <p>Any change in water quality has the potential to impact on water dependant habitats and species.</p> <p>Conclusion:</p> <p>The only emission to water authorised from the installation is of surface water run-off which will be</p>
A048	Shelduck	<i>Tadorna tadorna</i>	
A140	Golden Plover	<i>Pluvialis apricaria</i>	
A141	Grey Plover	<i>Pluvialis</i>	

		<i>squatarola</i>	<p>treated via a constructed wetland, silt trap and oil separator. This run-off is currently being tankered off-site for treatment.</p> <p>This discharge from location SW1 is required to be under emission limit values for specific parameters set in accordance with <i>Schedule B.1</i>.</p> <p>Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.</p> <p>Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.</p> <p>This shall ensure any discharge will comply with the requirements of the <i>European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended</i>, and as a consequence contribute towards the receiving waters achieving 'good' status as required under the Water Framework Directive. Therefore, protecting the qualifying interests of the European sites.</p>
A142	Lapwing	<i>Vanellus vanellus</i>	
A143	Knot	<i>Calidris canutus</i>	
A156	Black-tailed Godwit	<i>Limosa limosa</i>	
A162	Redshank	<i>Tringa totanus</i>	
A195	Little Tern	<i>Sterna albifrons</i>	
Species (not water dependant):			
Code	Common Name	Scientific Name	Emission to Air
A130	Oystercatcher	<i>Haematopus ostralegus</i>	<p>There six point source emissions to air associated with this installation.</p> <p>Dust is also an emission associated with construction and demolition waste recovery.</p> <p>Dust deposition will be monitored at locations just inside the installation boundary and air emissions will be monitoring at the point sources. This monitoring is required to demonstrate that emissions limit levels specified in the licence are not exceeded. Preventative and corrective measures are required to be put in place for any exceedance of emission limit levels at these locations. The risk of dust deposition and air emissions levels impacting the qualifying interests of the SPA is low.</p>
A144	Sanderling	<i>Calidris alba</i>	
A169	Turnstone	<i>Arenaria interpres</i>	
Habitats:			
Code	Description		Conclusion:
A999	Wetlands		<p>Condition 5.7 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary.</p> <p><i>Schedule C.5</i> of the RD requires dust deposition to be monitored quarterly. <i>Schedule B.1.5</i> of the RD sets a dust deposition limit which the results of this monitoring should be under.</p> <p><i>Schedules B.1.1 – B.1.4</i> of the RD sets emission limit values for specific parameters for each of the 6 emissions to air from the installation. <i>Schedules C.1.1 – C.1.2</i> of the RD sets control and</p>

monitoring requirements for each of these point emissions to air.

Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.

Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.

The above measures will protect the SPA from dust deposition and air emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.

Noise emissions:

Noise is an emission associated with construction and demolition waste recovery.

Noise will be monitored at noise sensitive locations and this monitoring is required to demonstrate that noise levels are under the levels specified in the licence. Preventative and corrective measures are required to be put in place for an exceedance of noise levels at these locations. The risk of noise levels impacting the qualifying interests of the SPA is low.

Conclusion:

Condition 6.20 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation.

Condition 4.6 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5.6 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations.

Condition 6.20 and *Schedule C.5* of the RD requires noise levels to be monitored annually and quarterly respectively. *Schedule B.4* of the RD sets daytime, evening time and night time noise emission limits which the results of this monitoring should be under. Condition 9.3 requires an exceedance of an emission limit value to be reported as an incident.

Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.

Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.

	<p>The above measures will protect the SPA from noise emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p><u>Potential for Accidents to Arise</u></p> <p>There is the potential for accidents and emergency situations arising at the installation resulting in partially treated or untreated surface water run-off discharging to the southern drain or air emissions discharging to atmosphere. Such incidents or events could lead to the discharge of run-off or air which exceeds emission limit values, which could potentially impact the Roughgrange River and the local atmosphere respectively.</p> <p>An accidental discharge of untreated surface water run-off or air is unlikely as Condition 2.2.2.14 requires a maintenance programme which includes preventative maintenance. Condition 6.11 requires silt traps and oil separators to be inspected weekly and desludged as necessary. The gas flare will function as a standby for the gas utilisation engines.</p> <p>Taking the above into consideration the discharge of untreated storm water into the southern drain or the emission of untreated air to atmosphere is unlikely and the overall risk is low.</p> <p>Conclusion:</p> <p>Reference the conclusion in the <i>Emission to Water</i> and Emission to Air above.</p> <p>The above measures will protect the SPA from accidents associated with the activity; therefore, protecting the qualifying interests of the European sites.</p>
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Note 1: Environmental RTDI Programme 2000 - 2006. Water Framework Directive – Water Status: Identification and Ranking of Nature Conservation Designated Areas (2002-W-DS-10) Final Report.

Table 8: Assessment of the effect(s) of the proposed activities on European site(s) and proposed mitigate measures.

European Site (site code):	Boyne Coast and Estuary SAC (001957)
Distance/ Direction from discharge(s)	The licence currently provides for the discharge of surface water and six point source emissions to air from the installation. The installation is located approximately 19.9km from the above SAC via surface water linkages and approximately 16km overland.

Conservation objectives:	As per NPWS Conservation Objectives Series for Boyne Coast and Estuary SAC [001957]. Version 1.0. Department of Arts, Heritage and the Gaeltacht (dated 31/10/2012).																			
Qualifying interests (* denotes a priority habitat)	Assessment																			
<p>Habitats (water dependant ^{Note 1}):</p> <table border="1" data-bbox="181 459 889 1335"> <thead> <tr> <th data-bbox="181 459 338 496">Code</th> <th data-bbox="338 459 889 496">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="181 496 338 560">1130</td> <td data-bbox="338 496 889 560">Estuaries</td> </tr> <tr> <td data-bbox="181 560 338 655">1140</td> <td data-bbox="338 560 889 655">Mudflats and sandflats not covered by seawater at low tide</td> </tr> <tr> <td data-bbox="181 655 338 751">1310</td> <td data-bbox="338 655 889 751">Salicornia and other annuals colonizing mud and sand</td> </tr> <tr> <td data-bbox="181 751 338 847">1330</td> <td data-bbox="338 751 889 847">Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</td> </tr> <tr> <td data-bbox="181 847 338 943">1410</td> <td data-bbox="338 847 889 943">Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</td> </tr> <tr> <td data-bbox="181 943 338 1007">2110</td> <td data-bbox="338 943 889 1007">Embryonic shifting dunes</td> </tr> <tr> <td data-bbox="181 1007 338 1102">2120</td> <td data-bbox="338 1007 889 1102">Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')</td> </tr> <tr> <td data-bbox="181 1102 338 1335">2130</td> <td data-bbox="338 1102 889 1335">*Fixed coastal dunes with herbaceous vegetation ('grey dunes')</td> </tr> </tbody> </table>	Code	Description	1130	Estuaries	1140	Mudflats and sandflats not covered by seawater at low tide	1310	Salicornia and other annuals colonizing mud and sand	1330	Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)	1410	Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	2110	Embryonic shifting dunes	2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')	2130	*Fixed coastal dunes with herbaceous vegetation ('grey dunes')	<p><u>Emission to Water</u></p> <p>The Water Framework Directive River risk score for the Roughgrane River is possibly <i>at risk of not achieving good status</i> and the score for the portion of the River Boyne to which this river merges is <i>at risk of not achieving good status</i>.</p> <p>There are no <i>Margaritifera</i> locations in the Roughgrane or Boyne Rivers downstream of the installation.</p> <p>Any change in water quality has the potential to impact on water dependant habitats and species.</p> <p>Conclusion:</p> <p>The only emission to water authorised from the installation is of surface water run-off which will be treated via a constructed wetland, silt trap and oil separator. This run-off is currently being tankered off-site for treatment.</p> <p>This discharge from location SW1 is required to be under emission limit values for specific parameters set in accordance with <i>Schedule B.1</i>.</p> <p>Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.</p> <p>Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.</p> <p>This shall ensure any discharge will comply with the requirements of the <i>European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended</i>, and as a consequence contribute towards the receiving waters achieving 'good' status as required under the Water Framework Directive. Therefore, protecting the qualifying interests of the European sites.</p>	
Code	Description																			
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	<p>Emission to Air</p> <p>There six point source emissions to air associated with this installation.</p> <p>Dust is also an emission associated with construction and demolition waste recovery.</p> <p>Dust deposition will be monitored at locations just inside the installation boundary and air emissions will be monitoring at the point sources. This monitoring is required to demonstrate that emissions limit levels specified in the licence are not exceeded. Preventative and corrective measures are required to be put in place for any exceedance of emission limit levels at these locations. The risk of dust deposition and air emissions levels impacting the qualifying interests of the SAC is low.</p> <p>Conclusion:</p> <p>Condition 5.8 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary.</p> <p><i>Schedule C.5</i> of the RD requires dust deposition to be monitored quarterly. <i>Schedule B.1.5</i> of the RD sets a dust deposition limit which the results of this monitoring should be under.</p> <p><i>Schedules B.1.1 – B.1.4</i> of the RD sets emission limit values for specific parameters for each of the 6 emissions to air from the installation. <i>Schedules C.1.1 – C.1.2</i> of the RD sets control and monitoring requirements for each of these point emissions to air.</p> <p>Condition 9.3 requires an exceedance of an emission limit value to be reported as an incident.</p> <p>Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.</p> <p>Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.</p> <p>The above measures will protect the SAC from dust deposition and air emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p>Noise emissions:</p> <p>Noise is an emission associated with construction and demolition waste recovery.</p>
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	<p>Noise will be monitored at noise sensitive locations and this monitoring is required to demonstrate that noise levels are under the levels specified in the licence. Preventative and corrective measures are required to be put in place for an exceedance of noise levels at these locations. The risk of noise levels impacting the qualifying interests of the SAC is low.</p> <p>Conclusion:</p> <p>Condition 6.20 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation.</p> <p>Condition 4.6 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5.6 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations.</p> <p>Condition 6.20 and <i>Schedule C.5</i> of the RD requires noise levels to be monitored annually and quarterly respectively. <i>Schedule B.4</i> of the RD sets daytime, evening time and night time noise emission limits which the results of this monitoring should be under. Condition 9.3 requires an exceedance of an emission limit value to be reported as an incident.</p> <p>Condition 2.2.2.10 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.</p> <p>Condition 2.2.2.14 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.</p> <p>The above measures will protect the SAC from noise emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p><u>Potential for Accidents to Arise</u></p> <p>There is the potential for accidents and emergency situations arising at the installation resulting in partially treated or untreated surface water run-off discharging to the southern drain or air emissions discharging to atmosphere. Such incidents or events could lead to the discharge of run-off or air which exceeds emission limit values, which could potentially impact the Roughgrange River and the local atmosphere respectively.</p> <p>An accidental discharge of untreated surface water run-off or air is unlikely as Condition 2.2.2.14 requires a maintenance programme which includes preventative maintenance.</p>
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