



# Annual Environmental Report (AER)

2023

Company Name: Bord Gais Energy Ltd.

Licence Number: P0830-02

Address: Fort Davis Road, Whitegate, Co. Cork, P25 NW64

Class of Activity<sup>1</sup>: Class 2 Energy

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<sup>1</sup> See Appendix I

# Purpose of this Report

One of the functions of the Environmental Protection Agency (EPA) is to licence and regulate the activities<sup>2</sup> of large scale industrial (e.g. chemical, food processors, power plants) and waste facilities. Submitting an Annual Environmental Report (AER) is a requirement of all EPA licences.

An AER is a public document. To this end, this format has been developed for industrial and waste licence holders (other than the intensive agriculture sector) to use as a template. This is to assist any member of the public to interpret and understand the environmental performance of the licensed facility.

The AER is a **summary** of environmental information for a given year. It includes:

- Details of the licence holder's environmental goals achieved, goals to maintain compliance and/or improve their environmental performance;
- Answers to questions regarding their facility's activities;
- Tables of results from monitoring emissions such as air, water, noise, and odour; and
- Details of waste generated, accepted and treated.

An AER does **not** provide detailed technical data. Such information is available in three ways:

- 1) Contacting the licence holder directly. The Contact Us section of this template enables the licence holder to provide details of where a member of the public can obtain further information on topics reported in this document.

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<sup>2</sup> See Appendix I

- 2) Some documents<sup>3</sup> are available on the EPA website via the licence details page for each individual licence. This can be found by browsing either the <http://www.epa.ie/licensing/> or <http://www.epa.ie/enforcement/> pages of the EPA website.
- 3) All formal enforcement correspondence exchanged between the EPA and a licence holder during the regulatory process is available for public viewing by appointment at any EPA Office.

If you have a question or query about an AER or an individual EPA licensed facility see the EPA's website or contact the relevant EPA office. See <http://www.epa.ie/about/contactus/> for contact details.

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<sup>3</sup> This includes EPA site inspection and compliance monitoring reports, licence holders' self-monitoring reports, AERs and special reports

# Contents

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Glossary .....	5
Declaration .....	8
1) Introduction .....	9
Contact Us .....	9
2) How we Manage our Facility.....	10
Environmental Management System .....	10
Beyond Compliance.....	12
3) Energy & Water.....	13
Energy .....	13
Water .....	15
4) Environmental Complaints.....	16
5) Environmental Incidents .....	17
6) Our Environmental Emissions .....	19
Storm Water.....	20
Waste Water .....	22
Air .....	24
Fugitive Solvent Emissions.....	27
Groundwater .....	28
Noise .....	30
7) Waste.....	31
Waste Generated .....	31
Waste Accepted .....	32
8) Financial Provision .....	33

## Glossary

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Abatement Equipment	Technology used to reduce pollution
AER	Annual Environmental Report.
Beyond Compliance	Beyond compliance is concept to help deliver greater organisational performance and long-term value for the environment, society and the economy.
CRAMP	Closure, Restoration and Aftercare Management Plan.
ELRA	Environmental Liability Risk Assessment.
Emission Limit Value	Limits set for specified emissions, typically outlined in Schedule B of an EPA licence.
EMS	Environmental Management System.
Environmental Goal	An objective or target set by a licensee as part of an environmental management system (EMS).
Environmental Pollutant	Substance or material that due to its quantity and/or nature has a negative impact on the environment.
Facility	Any site or premises that holds an EPA industrial or waste licence.
FP	Financial Provision.
GJ	Giga joules, an international unit of energy measurement.

Groundwater	All water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.
Incident	As defined by an EPA industrial or waste licence.
Inert Waste	Is waste that will not undergo physical, chemical or biological change thereby, is unlikely to cause environmental pollution or harm human health.
List of Wastes (LoW)	A list of wastes drawn up by the European Commission and published as Commission Decision 2014/955/EU.
Noise Sensitive Location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other installation or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Non-Renewable Resource	A resource of economic value that cannot be replaced at the same rate it is being consumed e.g. coal, peat, oil and natural gas.
Oil Separator	Separator system for light liquids (e.g. oil and petrol).
PRTR	Pollutant Release and Transfer Register.
Renewable Resource	Wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.
Sanitary Waste	Waste water from toilet, washroom and canteen facilities.

Storm Water	Rain water run-off from roof and non-process areas.
Surface Water	Lakes, rivers, streams, estuaries and coastal waters.
Trigger Level	A value set for a specific parameter, the achievement or exceedance of which requires certain actions to be taken by the licence holder.
Volatile Organic Compounds	Gases produced from solids or liquids that evaporate readily in ambient conditions.
Waste	Any substance or object which the holder discards or intends or is required to discard.

#### Disclaimer

These are **not** legal definitions. Legal definitions can be found in the corresponding legislation.

## Declaration

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I, Eoin McCarthy, EHS Manager, confirm that by ticking the box below, all information in this report is truthful and accurate to the best of my knowledge and belief.

In addition, I confirm that all monitoring and performance reporting required by our EPA licence and summarised herein is available for inspection by the EPA.

**Tick here**



## 1) Introduction

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See below a brief description of our facility and a summary of our environmental performance this year.

Whitegate Power Station is a Combined Cycle Power Plant (CCGT), which utilises natural gas and distillate oil as fuel to generate up to 450 MW of electricity for supply to the National Grid. The site is located to the southwest of Whitegate village, County Cork on the Fort Davis Road. The power station site is approximately ten hectares. Neighbouring lands are used for a variety of activities, including: an adjacent oil refinery, a gas bottling plant depot, agricultural activities, and the Fort Davis fortifications to the west. Bord Gáis Energy (Owner) is the IPPC Licence holder and has contracted General Electric Operations and Maintenance (GE O&M) to operate and maintain the power station and its environmental policy, aspects and impacts on their behalf.

### Contact Us

If you have any questions or would like further information on any aspect of our licensed activity, please contact us directly.

See below details:

Eoin McCarthy,  
EHS Manager,  
Whitegate Power Station, Whitegate, Co. Cork  
P25 NW64  
087 6960891  
021 4656500  
Eoin.mccarthy@ge.com

## 2) How we Manage our Facility

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### Environmental Management System

#### Explanation

To ensure our facility's activities do not cause environmental pollution we are required to have detailed documentation systems in place to help us manage and track our environmental performance. These systems are referred to as Environmental Management Systems (EMS). We review our EMS every year and set up-to-date **environmental goals** to continually improve our environmental performance.

The information below sets out the environmental goals for our facility to help us prevent environmental pollution and reduce our impact on the environment. Target dates for completing each goal and progress towards achieving the goal are outlined in Table 1.

**Table 1 Environmental Goals**

Environmental Goal	Target Date	Progress
Replace A2-1 Stack Emission Continuous Environmental Monitoring System (CEMS) unit	April 2024	In Progress
Modify A2-1 Main Stack volumetric flow measurement sample locations	May 2023	Complete
A project to reduce power consumption of the ACC motors was completed. The team has installed a water jet cleaning system which increases the heat transfer across the Air-Cooled Condenser fins. This has resulted in a lower steam turbine back	October 2023	Complete

pressure, increased heat rate, and considerable reduction in the running hours of the 20 ACC fan motors		
A project to further increase the efficiency of the ACC system is planned for 2024. Based on the results from a study on the effects of high wind speeds on the performance of the condenser it was determined that the negative effect of high wind speeds could be negated to some extent by the addition of wind screens underneath the ACC that would obstruct the wind path a reduce the wind shear effect. From this it was decided to purchase and install wind "cruciform" screens.	April 2024	Planning

Add rows as necessary

Comment

EPA Air Focus site visit was completed on the 5<sup>th</sup> of July 2023, Site Visit Reference No. SV27987.  
 EPA Water Focus site visit was completed on the 6<sup>th</sup> of October 2023, Site Visit Reference No. SV27155.

## Beyond Compliance

### Explanation

We are legally required to comply with our environmental licence. However, the EPA realise that some sites go further than just complying with their environmental licence requirements. Some projects carried out at facilities can have long term positive impacts on the environment and local communities.

The EPA's beyond compliance initiative is encouraging us to identify and report on these environmental and sustainability projects. For example, the project could involve renewable energy, biodiversity, water conservation or exemplar community engagement.

**Did any project completed on your site in the reporting year go beyond your licence requirements?**

Yes

No

If yes, provide details of one case study in Appendix III that demonstrates how the project went beyond compliance of your licence.

### 3) Energy & Water

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#### Energy

##### **Explanation**

Fossil fuels such as coal, gas and oil are non-renewable resources. As a result, our EPA licence requires that we measure our energy use and set targets to improve the energy efficiency of our activities and reduce our overall use, where possible. Where we have the means and technology on-site to generate energy, this is also captured in this report.

The information below summarises the energy used this year compared to the previous year and includes renewable and non-renewable energy types.

**Table 3 Energy Used**

<b>Energy Used</b>	<b>Quantity (GJ)</b>	<b>% Increase/ decrease on previous year</b>
Electricity	17,350	74.43 % increase
Heavy Fuel Oil	N/A	N/A
Light Fuel Oil	14,937.36	22.56% decrease
Natural Gas	15,261,480	17.71% decrease
Coal / Solid Fuel	N/A	N/A
Peat	N/A	N/A
Renewable Biomass	N/A	N/A
Renewable Energy Generated On-site	N/A	N/A
<b>Total Energy Used</b>	<b>15,293,767.36</b>	<b>17.67% decrease</b>

##### Comment

The Gas Turbine was fully operational in 2023, however had a 12.89% decrease in running hours from 2022 resulting in more time importing electricity (house load) and less natural gas and light fuel oil consumption.

The information below summarises the energy we generated on our site this year with specific focus on renewable energy generation.

**Table 4      Energy Generated**

<b>Energy Generated</b>	<b>Quantity (GJ)</b>	<b>% Increase/ decrease on previous year</b>
Renewable Energy	0	0
<b>Total Energy Generated</b>	8,071,020	11.72% decrease

Comment

The Gas Turbine was fully operational in 2023. However, 1 month outage across August & September and lower generation demand in November and December resulted in the figure decrease from 2022.

## Water

### Explanation

Water is a natural resource and we are required by our EPA licence to identify ways to reduce our use where possible. Water used in industry can be extracted from groundwater, rivers and lakes (surface water), taken from public water supplies (Irish Water), recycled from the facility's processes or harvested from rainwater.

The information below summarises and compares the quantity of water used this year compared to the previous year.

**Table 5 Water Used**

<b>Source of Water Used</b>	<b>Quantity (m<sup>3</sup>/year)</b>	<b>% Increase/ decrease on previous year</b>
Groundwater	0	0
Surface Water	0	0
Public Supply	70,390	0.18% increase
Recycled Water	42,817	2.2 % increase
Rainwater	0	0
<b>Total Water Used</b>	<b>70,390</b>	<b>0.18 % increase</b>

### Comment

The Gas Turbine was fully operational in 2023, however had a 12.89% decrease in running hours from 2022.

## 4) Environmental Complaints

### **Explanation**

Our EPA licence requires that activities do not cause environmental nuisance such as odour, dust or noise. Our licence also requires that we have procedures in place to record, investigate and respond to environmental complaints if or when they arise.

We have an environmental complaints procedure in place where you can contact us<sup>4</sup> directly. You can also contact the EPA<sup>5</sup> if you wish to make an environmental complaint, confidentially or not.

See the information below for a summary of **all** the environmental complaints relating to our activities made directly to us and to the EPA this year.

**Table 6 Summary of All Environmental Complaints Received in**

<b>Type of Complaint</b>	<b>Number of Complaints</b>	<b>Number Closed</b>
<b>Odour / Smells</b>	0	N/A
<b>Noise</b>	0	N/A
<b>Dust</b>	0	N/A
<b>Water Quality</b>	0	N/A
<b>Air Quality</b>	0	N/A
<b>Waste</b>	0	N/A
<b>Litter</b>	0	N/A
<b>Vermin/Flies/Birds</b>	0	N/A
<b>Soil Contamination</b>	0	N/A
<b>Vibration</b>	0	N/A
<b>Other</b>	0	N/A

Comment

There was no instance of Environmental complaints received in 2023.

<sup>4</sup> See Section 1, Introduction – Contact Us

<sup>5</sup> If you wish to contact the EPA to make an environmental complaint about an EPA licenced facility, please go to <https://ema.epa.ie/complaints>

## 5) Environmental Incidents

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### **Explanation**

It is our responsibility as an EPA licensed facility to ensure we have systems in place to prevent incidents that have the potential to cause environmental pollution. If an incident occurs, we are required to report it to the EPA, investigate the cause and fix the problem.

The EPA classify environmental incidents into 5 categories based on the potential impact on the environment:

- Minor
- Limited
- Serious
- Very Serious
- Catastrophic

See Table 6 for the number of the environmental incidents we reported to the EPA this year.

**Table 7      Number of Environmental Incidents**

<b>Incident Category</b>	<b>Minor</b>	<b>Limited</b>	<b>Serious</b>	<b>Very Serious</b>	<b>Catastrophic</b>
Abatement Equipment Offline	0	0	0	0	0
Breach of Ambient ELV	0	0	0	0	0
Breach of Emission Limit	0	0	0	0	0
Explosion	0	0	0	0	0
Fire	0	0	0	0	0
Monitoring Equipment Failure	0	0	0	0	0
Odour	0	0	0	0	0
Spillage	0	0	0	0	0
Breach of trigger Level	0	0	0	0	0
Uncontrolled Release	0	0	0	0	0
Other	0	0	0	0	0

Comment

No Environmental Incidents were recorded in 2023
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## 6) Our Environmental Emissions

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### **Explanation**

We are required to ensure the emissions from our activities do not cause environmental pollution.

We are required to monitor any of the following emissions that we make:

- Storm water
- Waste water
- Air
- Groundwater
- Noise

We regularly test any such emissions for specific pollutants and materials to ensure they do not contain levels of pollution that exceed emission limit values (ELVs) or cause environmental pollution. If monitoring of an emission indicates an ELV is exceeded, we are required to report this to the EPA<sup>6</sup>.

The next sub-sections of this report summarise our compliance with any ELVs set in our EPA licence. Some emissions monitored do not have specific ELVs, but we still carry out monitoring and report all incidents that may give rise to environmental pollution.

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<sup>6</sup> See section 5, Incidents

## Storm Water

### **Explanation**

Storm water is rain water run-off from roof and non-process areas of a facility, e.g. carparks, and generally shall not contain any pollution.

Storm water is usually released into a local water body after a basic form of treatment. Our EPA licence requires that we manage storm water to ensure no polluting substances or materials are released into the environment.

The information below summarises how the storm water from our facility is treated, where it is released and the results of monitoring this year.

### **1. Storm water from our facility is managed prior to release by;**

The storm water system (SW2) has been designed to collect rainwater from site which then flows through a series of pipework to Attenuation Pit SW2. The Attenuation pit level is monitored from the Central Control Room DCS, by the level transmitter 10GU\_10CL001. The high-high level alarm will be triggered on a level of 400mm in the Attenuation pit. This alarm then indicates to the DCS that the Attenuation pit needs to be pumped out via the oily water separator. Our licence demands continuous sampling of stormwater for TOC and pH which is performed automatically in the BioTector Unit. Checks to ensure the pH and TOC results are within parameters are completed before starting the submersible pump from the DCS. The Stormwater Emission Limit Value for pH is 5.5-10 and TOC is 40 ppm. The discharge pumps are interlocked to cut out if the BioTector Unit detects a pH outside of the 6.2-9.8 range or if there is a TOC higher than 25ppm.

### **2. Storm water from our facility is released into the following water bodies:**

–Into the Glanagow stream in compliance with the EPA and the IED licence P0830-02.

**Table 8 Summary of Storm Water Monitoring**

<b>Parameter measured</b>	<b>No. of Samples</b>	<b>% Compliant<sup>7</sup></b>	<b>Comment</b>
TOC	Continuous	100%	See below
pH	Continuous	100%	

Add rows as necessary

**Comment**

There were no issues to report regarding storm water discharge monitoring in 2023.

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<sup>7</sup> % compliant = [(number of samples compliant) / (number of samples taken)] x 100. Compliance could refer to emission limit values or trigger levels. The EPA commonly use trigger levels on stormwater discharges.

## Waste Water

### Explanation

There are two types of waste water that can be produced:

- Process waste water produced from the activities and;
- Sanitary waste water from toilets, washrooms and canteens.

Our EPA licence requires us to manage our waste water on or off-site and ensure that it does not cause environmental pollution when discharged into the environment.

The information below summarises how we treat the waste water produced from our activities, where it is released and the results of monitoring this year.

### **1. Waste water produced by our activities is treated as follows before discharge to a receiving waterbody;**

The process water system (SW1) has been designed to collect process water from site in the Equalisation Basin. When a high level is reached in the Equalisation Basin the contents are transferred into either Neutralisation Basin A or B. If required, the process water is circulated within the basin and pH adjusted to within the licence Emission Limit Value of 6 to 9.

Our licence demands continuous pH and temperature sampling of process water discharge which is performed automatically. Checks to ensure the pH and temperature are within parameters are completed before starting the discharge basin pumps. The process water Emission Limit Value for pH is 6-9 and temperature is 25°C. The discharge pumps are interlocked to cut out if detects a pH outside of the 6.5-8.5 range or if there is a temperature higher than 24.5°C.

### **2. Treated waste water from our facility is released into the following water bodies:**

Cork Harbour, in compliance with the EPA and the IED licence P0830-02.

**Table 9 Summary of Waste Water Monitoring**

<b>Parameter measured</b>	<b>No. of Samples</b>	<b>% Compliant</b>	<b>Comment</b>
<b>SW1 Flow</b>	Continuous	100%	
SW1 Temperature	Continuous	100%	
SW1 pH	Continuous	100%	
SW1 Biological Oxygen Demand (BOD)	12	100%	
SW1 Ammonia (as N)	90	100%	
SW1 Total Dissolved Solids	90	100%	
SW1 Phosphorus (as P)	90	100%	
SW1 Mineral Oil	12	100%	
SW1 Toxicity	1	100%	
SW3 Biological Oxygen Demand (BOD)	4	100%	
SW3 Suspended Solids	4	100%	

Add rows as necessary

Comment

There were no issues to report regarding process water discharge monitoring in 2023.

## Air

### Explanation

Generally, three types of air emissions are monitored from industry in Ireland: gases, dust (particulates) and odour. Our EPA licence requires us to ensure that any air emissions from our activities do not cause air pollution or create an odour nuisance.

The information below details the number of air emission points we monitor, the results from testing the air emissions and any odour assessments carried out by us and the EPA this year.

### 1. We monitor air emissions from the following number of emission points at our facility.

Main Stack A2-1  
Auxiliary Boiler Stack A1-1  
Biannual stack emission testing was completed by Fitz Scientific on the 30<sup>th</sup> & 31<sup>st</sup> May 2023 and by Socotec Ltd. on the 21<sup>st</sup> & 22<sup>nd</sup> November 2023.

**Table 10 Summary of Air Emissions Monitoring**

Parameter measured	No. of Samples	% Compliant	Comment
Nitrogen Oxides (NO <sub>x</sub> /NO <sub>2</sub> )	Continuous	-	A2-1
Carbon Monoxide (CO)	Continuous	-	A2-1
Oxygen	Continuous	-	A2-1
Temperature	Continuous	-	A2-1
Volumetric Flow	Continuous	-	A2-1
Sulphur Oxides (SO <sub>x</sub> /SO <sub>2</sub> )	Biannually	-	A2-1

Particulate Matter	Biannually	-	A2-1
Nitrogen Oxides (NOx/NO2)	Biannually	-	A1-1
Sulphur Oxides(SOx/SO2)	Biannually	-	A1-1
Volumetric Flow	Biannually	-	A1-1
Particulate Matter	Biannually	-	A1-1

Add rows as necessary

### Comment

A proactive maintenance service agreement was in place for each piece of continuous monitoring equipment in 2023 with the CEMS OEM, Signal Ambitech.

Whitegate Power Station is currently in the process of replacing the CEMS unit with a SICK MAC GSM 800 Modular Gas Analyser. This will be installed in Q1 2024.

A maintenance service agreement is in place for each piece of continuous monitoring equipment with EMS MS Environmental Monitoring Systems Ltd.

**Table 11 Summary of Odour Assessments Carried Out**

<b>Assessment Conducted By</b>	<b>No. of Odour Assessments</b>	<b>% Compliant<sup>8</sup></b>	<b>Comment</b>
Licence Holder	0	N/A	
EPA	0	N/A	

Add rows where necessary

Comment

An odour assessment was not completed in 2023.

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<sup>8</sup> A compliant odour assessment is based on EPA Odour Impact Assessment Guidance available at [Air Enforcement | Environmental Protection Agency \(epa.ie\)](#)

## Fugitive Solvent Emissions

Are you required to monitor fugitive solvent air emissions from your facility?

Yes

No

### Explanation

The use of solvents is regulated under Irish and European Union (EU) Regulations<sup>9</sup>. Solvents are chemicals that, by their nature, are volatile (evaporate readily under ambient conditions). Solvents can be found in many inks, glues and cleaning agents. Due to the volatility of solvents some emissions may be released into the atmosphere during our activities before being captured in our air treatment system. This type of emission is called a **fugitive solvent emission**.

The information below summarises the quantity of solvents used this year, the percentage of fugitive solvent emissions (% of total quantity used) and whether the percentage complied with the targets set in the EU Regulations.

**Table 12 Summary of Fugitive Solvent Emissions**

Quantity of Solvents Used (Kg)	% Fugitive Solvent Emissions	Compliant
0	0	N/A

Comment

N/A

<sup>9</sup> See Annex VII of the Industrial Emissions Directive

<https://ec.europa.eu/environment/industry/stationary/ied/legislation.htm>

## Groundwater

### Explanation

Groundwater is an important and sensitive resource in Ireland. Our EPA licence requires that we monitor groundwater to ensure our activities do not cause groundwater pollution.

Understanding how groundwater flows through soil and rock layers and eventually into surface and coastal waters is a complex science. Sometimes groundwater pollution that occurred in the past can take years and even decades to disappear. Therefore, it is important that experts help us monitor and interpret results from groundwater monitoring and testing.

The information below is a basic summary of the condition of the groundwater this year.

**1. Do you have a groundwater monitoring programme in place?**

Yes

No

**2. Have the groundwater monitoring results over the last 5 years indicated the presence of groundwater pollution?**

Yes

No

**Table 13 List of Groundwater Pollutants Identified**

Pollutants
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Groundwater monitoring and analysis was completed In June and November 2023. Hydrocarbons were not detected above the LOD.
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Add rows as necessary

**3. Give details of the investigations and subsequent actions taken, where applicable, to manage the groundwater pollution.**

N/A

Comment

No further actions are required.

## Noise

### Explanation

Our EPA licence requires that we monitor noise emissions from our facility. Noise monitoring can be conducted at the boundary of our facility and/or at locations beyond the boundary referred to as “noise sensitive locations”. Noise monitoring requires the use of special noise monitoring equipment. Our EPA licence requires that noise produced by our facility shall not exceed the noise limit values and/or give rise to nuisance.

The information below gives a summary of when and where we conducted noise monitoring this year and if results complied with our EPA licence limits.

#### 1. We conducted noise monitoring on the following dates this year:

Environmental monitoring was completed by Allegro Acoustics on the 17<sup>th</sup> & 18<sup>th</sup> of January with no issues recorded. Occupational noise monitoring was completed by Allegro Acoustics on the 7<sup>th</sup> of February.

#### 2. Where was the noise monitoring carried out?

- i. the boundary of our facility;
- ii. noise sensitive locations off-site; or
- iii. both.

iii. both

#### 3. Were measured noise levels compliant with your EPA licence limits?

Yes

No

If No, we took the following actions to address the noise level exceedances?

N/A

Comment

N/A

## 7) Waste

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### Waste Generated

#### Explanation

Our EPA licence requires us to manage the waste we generate in a manner that does not cause environmental pollution.

We manage, store and record hazardous, non-hazardous and inert waste we generate in accordance with our licence. We ensure that this waste is subsequently treated or disposed of in accordance with the relevant waste Regulations.

The information in Table 14 is a summary of waste we generated this year and the percentage increase or decrease on the previous year. The percentage recovery is the amount of total waste generated that was reused, recycled or recovered.

**Table 14 Waste Generated**

Type	Quantity (Tonnes)	% Increase/ decrease on previous year	% Recovery
Hazardous	339.614	400.17% increase	2.71
Non-Hazardous	113.494	1.89% decrease	40.79
Inert	0	0	0
<b>Total Tonnes</b>	<b>453.108</b>	<b>146.82% increase</b>	

#### Comment

Increase of hazardous waste due to requirement to tanker contaminated water from stormwater basin and a Water Treatment Plant CIP.

In July, ENVA were requested to tanker 243.32 Tonnes of Aqueous waste (EWC 161001) from site following a minor Glycol leak into the Fin Fan Cooler bund and SW2 storm water attenuation basin. This equates to 71.65% of the overall hazardous waste generated on site.

## Waste Accepted

Did you accept waste onto your facility for storage, treatment, recovery or disposal this year?

Yes

No

### Explanation

Our EPA licence requires us to manage the waste we accept in a manner that does not cause environmental pollution.

We manage, store and record all incoming and outgoing hazardous, non-hazardous and inert waste. The waste we accept may be treated, recovered, disposed or stored at our facility depending on our licence requirements.

The information in Table 15 provides a summary of waste we accepted this year and the percentage increase or decrease on the previous year. The percentage recovery is the amount of total waste accepted that was reused, recycled or recovered.

**Table 15 Waste Accepted**

Type	Quantity (Tonnes)	% Increase/ decrease on previous year	% Recovery
Hazardous	N/A	N/A	N/A
Non-Hazardous	N/A	N/A	N/A
Inert	N/A	N/A	N/A
<b>Total Tonnes</b>	N/A	N/A	N/A

Comment

We did not accept waste onto our facility for storage, treatment, recovery or disposal in 2023.

## 8) Financial Provision

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### Explanation

Our EPA licence requires us to assess the risk our activities pose to the environment if we cease our activities or if an incident occurred. If we are identified as a high risk facility<sup>10</sup> by the EPA, we are required to put provision in place such as a financial bond or insurance to cover the cost of restoring our site to a satisfactory condition. This financial provision can then be used to cover the cost of managing the restoration or clean up should such an event occur.

1. Are you required to have an agreed financial provision in place?

Yes

No

2. What year was your Closure, Restoration and Aftercare Management Plan (CRAMP) last agreed by the Agency?

The Decommissioning Management Plan (DMP) which was updated on the 15th of March 2023.

3. What year was your Environmental Liability Assessment Report (ELRA) agreed by the Agency?

ELRA has been submitted to the EPA on the 16th of July 2021 as per Licence Return LR060347.

4. Has there been any significant changes on your site since the last agreements?

Yes

No

If yes, have you submitted details to the EPA?

Yes

No

N/A

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<sup>10</sup> See Appendix II

# Appendix I

## **Class of Activity**

Industrial and waste facilities are classed into different sectors depending on the nature of their activity and its potential impact on the environment. The EPA Act 1992 as amended, outlines these as follows:

Class 1	Minerals and other materials
Class 2	Energy
Class 3	Metals
Class 4	Mineral fibres and glass
Class 5	Chemicals
Class 6	Intensive Agriculture <sup>11</sup>
Class 7	Food and drink
Class 8	Wood, paper, textiles and leather
Class 9	Fossil fuels
Class 10	Cement, lime and magnesium oxide
Class 11	Waste
Class 12	Surface Coatings
Class 13	Other Activities

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<sup>11</sup> This reporting template is not applicable to the **intensive agriculture sector**. Their annual environmental reporting structure is different and can be found at [Compliance & Enforcement: Licensees: Reporting Publications | Environmental Protection Agency \(epa.ie\)](#)

# Appendix II

## **High Environmental Risk Categories**

If an industrial or waste licence falls into one of these categories it is deemed, by the EPA, as a high environmental risk. As a result, the licence holder is required to have financial provision in place. See section 8, Financial Provision.

1. Landfills
2. Non-Hazardous Waste Transfer Station
3. Incineration and Co-Incineration Waste Facilities
4. Category A – Extractive Waste Facilities
5. Upper and Lower Tier Seveso Facilities
6. Hazardous Waste Transfer Stations
7. High Risk Contaminated Land
8. Exceptional Circumstances

### **NOTE:**

This list is subject to change.

See the link below for further information.

[Compliance & Enforcement: Financial Provisions Publications | Environmental Protection Agency \(epa.ie\)](#)

# Appendix III

## Beyond Compliance

The case study below shows how we went beyond the requirements of our licence in the reporting year.

### **Installation of an Air-Cooled Condenser Cleaning System**

Because air is a relatively inefficient medium of heat transfer, ACCs are large structures with considerable surface area; a moderately-sized power plant (~300 MW steam turbine) may have 20,000 finned condensing tubes. Efficiency optimization in design and operation are critical to viable plant performance.

Steam inside the tubes can range from 38-77°C and its conversion to liquid water and the associated reduction in volume creates a vacuum, commonly referred to as “backpressure”, that drives overall power plant efficiency.

Cooling fans moving high volumes of air through narrowly spaced fins will inevitably result in the accumulation of airborne debris on the fan-side of the finned tube A-frame, with the closely spaced fins acting somewhat as an air filter. Blockage in air passageways prevent optimal heat transfer, reducing steam condensing efficiency and degrading condenser vacuum.

An ACC cleaning system has been installed at Whitegate Power Station to improve the cooling capacity / efficiency of the air-cooled condenser resulting in an improved plant performance, heat rate and reduced operation of the number of air moving 400V fan motors.