



Annual Environmental Report (AER) 2023

Company Name: Microsoft Ireland Operations Limited

Licence Number: P1190-01

Address: Microsoft Dublin Data Center Campus, Unit 74-76
Grange Castle Business Park, Nangor Road, Clondalkin,
Dublin

Class of Activity¹: 2.1 Energy

¹ See Appendix I

Purpose of this Report

One of the functions of the Environmental Protection Agency (EPA) is to licence and regulate the activities² 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.

² See Appendix I

- 2) Some documents³ 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.

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

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Glossary

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

I, Garrett Prendiville - CE Program 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

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

The Microsoft Ireland Operations Ltd facility is a data storage installation located in unit 74 Grange Castle South Business Park, Dublin 22. The facility provides secure data storage services, and distribution of information to individuals, businesses and organisations. The site is licenced for the operation of back-up generators. Outside of routine testing and maintenance related uses, the operation of these back-up generators is typically only required for emergency circumstances e.g. a loss or other reduction of grid power supply or instability caused by equipment failure.

A feasibility study on waste heat recovery was carried out in 2023. This study was not a requirement of the site's licence so this is detailed further in Appendix III Beyond Compliance of this report.

There were no environmental incidents or complaints at the site in 2023. There are no Emission Limit Values (ELVs) in place at the site for air, stormwater or wastewater. However, ambient air monitoring at the site was 100% compliant with the relevant NO₂ thresholds. 17 out of 18 site specific noise levels fell within the ELVs for noise as set out in the licence. Where the apparent exceedance was found, it was due to noise sources unrelated to the site. 90.43% of waste generated at the site was recovered rather than disposed of.

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:

Garrett Prendiville – CE Program Manager

Email: Garrett.Prendiville@microsoft.com

2) How we Manage our Facility

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
ISO50001 achieved	2024	Complete
EU Code of Conduct on Data Centre Energy Efficiency	2024	Complete
Zero waste site	2024	Complete
LED Lighting projects	2024	Complete
Waste heat recovery feasibility study	2023	Complete
Complete and implement the site's EMS	2024	On track
HVO transition	2025	On track

Add rows as necessary

Comment

The EMS for the site has not yet been completed, implementing this at the site is the primary environmental goal for 2024. The EMS will draw on the goals listed above. Achievement of ISO50001 and Zero Waste Site status, and implementation of LED Lighting project and the EU Code of Conduct on Data Centre Energy Efficiency have been completed.

A feasibility study on waste heat recovery was carried out in 2023. This study was not a requirement of the site's licence so this is detailed further in Appendix III Beyond Compliance of this report.

As there were no environmental incidents or complaints at the site in 2023, no environmental goals arose in response to incidents or complaints.

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

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

Energy Used	Quantity (GJ)	% Increase/ decrease on previous year
Electricity	450,494.64	N/A
Heavy Fuel Oil	-	-
Light Fuel Oil	1,611.18	N/A
Natural Gas	-	-
Coal / Solid Fuel	-	-
Peat	-	-
Renewable Biomass	-	-
Renewable Energy Generated On-site	-	-
Total Energy Used	452,105.82	N/A

Comment

The table shows the energy used from June (month of licence grant) to December. Energy used at the site is mainly sourced from purchased electricity. The backup generators on the site ran on light fuel oil. As the

site's licence was granted in 2023 the % increase/decrease column of Table 3 is not applicable to this 2023 report.

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

Table 4 Energy Generated

Energy Generated	Quantity (GJ)	% Increase/ decrease on previous year
Renewable Energy	-	-
Total Energy Generated	-	-

Comment

No renewable energy is generated on site.

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

Source of Water Used	Quantity (m³/year)	% Increase/decrease on previous year
Groundwater	-	-
Surface Water	-	-
Public Supply	2,165	N/A
Recycled Water	-	-
Rainwater	-	-
Total Water Used	2,165	N/A

Comment

The table shows the water used from June (month of licence grant) to December. All water used at the site is sourced from the public supply. As the site's licence was granted in 2023 the % increase/decrease column of Table 5 is not applicable to this 2023 report.

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 us⁴ directly. You can also contact the EPA⁵ 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

Type of Complaint	Number of Complaints	Number Closed
Odour / Smells	-	-
Noise	-	-
Dust	-	-
Water Quality	-	-
Air Quality	-	-
Waste	-	-
Litter	-	-
Vermin/Flies/Birds	-	-
Soil Contamination	-	-
Vibration	-	-
Other	-	-

⁴ See Section 1, Introduction – Contact Us

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

Comment

No environmental complaints were received in 2023.

5) Environmental Incidents

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

Incident Category	Minor	Limited	Serious	Very Serious	Catastrophic
Abatement Equipment Offline	-	-	-	-	-
Breach of Ambient ELV	-	-	-	-	-
Breach of Emission Limit	-	-	-	-	-
Explosion	-	-	-	-	-
Fire	-	-	-	-	-
Monitoring Equipment Failure	-	-	-	-	-
Odour	-	-	-	-	-
Spillage	-	-	-	-	-
Breach of trigger Level	-	-	-	-	-
Uncontrolled Release	-	-	-	-	-

Incident Category	Minor	Limited	Serious	Very Serious	Catastrophic
Other	-	-	-	-	-

Comment

No environmental incidents occurred in 2023.

6) Our Environmental Emissions

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 EPA⁶.

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.

⁶ 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. car parks, 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;

Prior to entering the existing stormwater drain all stormwater is diverted through bypass oil interceptors with carbon monitors and lock down valves (which are link to the BMS). Stormwater from DB4 and the southern side of DB3 is attenuated prior to passing through an inceptor. All stormwater from DB3 and DB4 is discharged through a manhole with a hydrobrake flow control which limits discharge to 45lts/sec. Stormwater from DB5 is discharged through hydrobrake flow control which limits flow to 45lts/sec. In the event of a fire or a major spill the outfall pipe will be closed with butterfly shut down valve to prevent contamination entering the downstream River Griffeen.

Excess evaporative cooling water which comprises of mains water is discharged via the stormwater system.

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

River Griffeen (from emission point SW1)

Table 8 Summary of Storm Water Monitoring

Parameter measured	No. of Samples	% Compliant⁷	Comment
pH	11	N/A	Trigger level to be determined
Total Organic Carbon	9	N/A	Trigger level to be determined
Temperature	11	N/A	Trigger level to be determined
Conductivity	11	N/A	Trigger level to be determined
Visual Inspection	11	100%	All storm water visually inspected was clear with no odour

Add rows as necessary

Comment

Storm water was monitored on site for pH, TOC, temperature and conductivity, as well as visual inspections of the storm water. All visual inspections confirmed the water was clear with no odour.

Under the site's licence there are no ELVs for storm water emissions, however suitable trigger levels must be determined and agreed with the EPA in 2024. The monitoring data collected in 2023 will contribute to setting these trigger levels.

⁷ % 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 excess cooling 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;

All sanitary waste water discharged from the site enters the Local Authority (South Dublin County Council) foul sewer, discharging to Ringsend WWTP. Treatment here includes screening/grit removal, rectangular primary tanks with Lamella settlers, SBR and Nereda Pilot Plant, UV treatment (during the bathing season) and Anaerobic digestion followed by thermal drying.

Excess evaporative cooling water which comprises of mains water is discharged via the stormwater system.

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

Liffey Estuary Lower (Transitional Waterbody) & Dublin Bay (Coastal Waterbody) (from emission points SE1 & SE2)

Table 9 Summary of Waste Water Monitoring

Parameter measured	No. of Samples	% Compliant	Comment
N/A	N/A	N/A	N/A

Add rows as necessary

Comment

Waste water produced at the site discharging to the foul sewer consists of sanitary waste water only. Under the site's licence there are no ELVs in place and no requirements to monitor waste water discharge.

The excess cooling water comprising of clean main water is discharged through the storm water system.

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.

Minor Emissions – A3-1 to A3-43 (except Fire Pumps A3-16 and A3-17)
Ambient Monitoring – One temporary continuous monitor to the east of the site and one temporary continuous monitor to the west of the site. These will be replaced by one EPA approved reference monitor.

Table 10 Summary of Air Emissions Monitoring

Parameter measured	No. of Samples	% Compliant	Comment
NO	Continuous monitoring	N/A	No ELV or trigger level applicable
NO _x	Continuous monitoring	N/A	No ELV or trigger level applicable
NO ₂	Continuous monitoring	100%	NO ₂ thresholds set out in

			Directive 2008/50/EC
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Add rows as necessary

Comment

The site's licence requires minor emission points to be monitored once every five years or when three times the permitted maximum annual operating hours have elapsed. As the licence was granted in 2023 neither of these scenarios apply and no minor emission point monitoring was undertaken.

Continuous ambient air monitoring has been in place on site since October recording hourly measures of NO, NO_x and NO₂. Two relevant thresholds apply to ambient NO₂ at the site; a threshold of 400µg/m³ measured over three consecutive hours and a threshold of 200µg/m³ as an hourly mean. Regarding the data collected to date, the site was 100% compliant with both of these thresholds. Full results of the ambient air monitoring are reported to the EPA annually.

Table 11 Summary of Odour Assessments Carried Out

Assessment Conducted By	No. of Odour Assessments	% Compliant⁸	Comment
Licence Holder	-	-	-
EPA	-	-	-

Add rows where necessary

Comment

The activities on site do not generate odour sources. There is no requirement to carry out odour assessments.

⁸ 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) Regulations⁹. 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
-	-	-

Comment

The activities on site do not generate fugitive solvent emissions.

⁹ 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
N/A

Add rows as necessary

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

N/A

Comment

The site's licence requires groundwater to be monitored for relevant hazardous substances every five years. As the licence was granted in 2023 no monitoring has been undertaken to date.

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:

Day Survey: 10:40 – 15:25 on 17th August 2023

Evening Survey: 19:18 – 21:03 on 17th August 2023

Night Survey: 23:00 on 17th August 2023 – 00:39 on 18th August 2023

2. Where was the noise monitoring carried out?

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

2 noise sensitive locations off-site and 1 boundary monitoring point

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?

No specific actions were taken as the one instance of an elevated noise level was not related to the site. The survey engineer undertaking the noise monitoring noted that the dominant sources of noise were road traffic from the R120 and construction from an adjacent site.

A Noise Management Plan is in place at the site which will be reviewed annually based on the results of the annual noise monitoring, or in the event that the site receives a valid noise complaint.

Comment

17 out of 18 site specific noise levels (i.e. noise attributable to activities within the IEL boundary) fell within the ELVs for noise as set out in the licence. Where the apparent exceedance was found, it was due to noise sources unrelated to the site. In addition, no audible tonal or impulsive noise was recorded at any period.

7) Waste

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	2.01	N/A	100%
Non-Hazardous	51.5972	N/A	90.07%
Inert	0	N/A	-
Total Tonnes	53.6072	N/A	90.43%

Comment

The table shows the total quantity of waste generated and % recovery from June (month of licence grant) to December. As the site's licence was granted in 2023 the % increase/decrease column of Table 14 is not applicable to this 2023 report.

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	-	-	-
Non-Hazardous	-	-	-
Inert	-	-	-
Total Tonnes	-	-	-

Comment

No waste is accepted on site.

8) Financial Provision

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 facility¹⁰ 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?

N/A

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

N/A

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 ☒

¹⁰ 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 ¹¹
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

¹¹ 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.

Microsoft Ireland Operations Ltd carried out a feasibility study in 2023 on the possibility of recovering waste heat from the DB3 data hall for reuse in other areas of the site. The process involves recovering waste heat which is generated at the DB3 data hall and transferring it to other zones of the site, such as administrative and ancillary areas of the site. The waste heat is then used to heat these areas of the site, rather than traditional electric heaters, reducing the amount of energy required for onsite heating.

The environmental benefit of recovering waste heat is a reduction in CO₂ emissions associated with running the site, as less energy would be used in day-to-day operations. There are additional benefits to the indoor air quality of the buildings utilising recovered waste heat in the winter, as it supplies outdoor air into occupied buildings that would otherwise be circulating indoor air with higher CO₂ and humidity levels.

The feasibility study outlines three potential options which would be feasible at the site. Each of the heat recovery solutions would have positive environmental benefits in terms of CO₂ emissions reduction. The recovered energy capacities range from 381kW to 951kW, depending on the option chosen.

Figure 1 below outlines broadly how the process of waste heat recovery works.

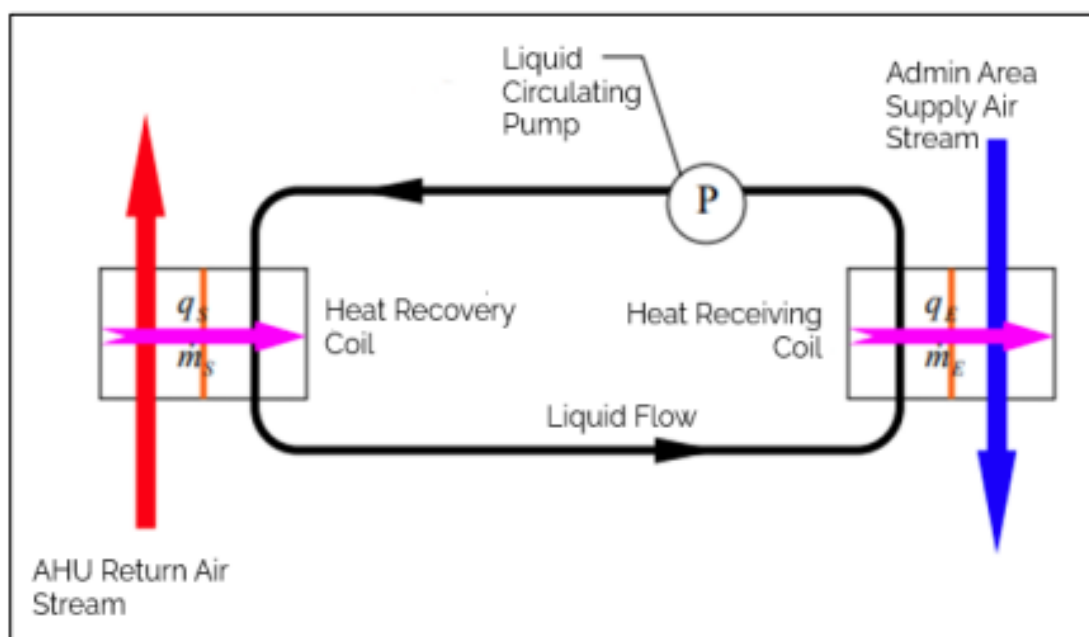


Figure 1 Example of a Run-Around Heat Recovery System (Ethos Engineering, 2023)