

ANNUAL ENVIRONMENTAL REPORT

2018

Burgess Galvin & Co. Ltd.

IPPC Licence Register Number P0075-03

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All of the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

Aisling Colclough
Technical Manager

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Introduction

This Annual Environmental Report (AER) covers the activities of Burgess Galvin & Co. Ltd. (hereafter referred to as the Company in this report) for the period from 1 January to 31 December 2018.

Registration

The current version of the Company's Integrated Pollution Prevention Licence (IPPC) licence (register number P0075-03) was granted by the Environmental Protection Agency (EPA) on 7 November 2008.

Location

The site is located at Jamestown Road, Finglas, Dublin 11.

Site Description

The site is located in a mixed industrial and mature residential area in Finglas. The Company has been operating in Finglas since the 1950's and on the current site since the early 1970's. The business is a processing activity, manufacturing detergents, adhesives and wood preservatives. The manufacture of the latter two classes of product are licensable activities under the first schedule to the Environmental Protection Agency Acts, 1992 to 2011. About 41 people are employed by the Company, the majority of whom live locally.

Environmental Policy

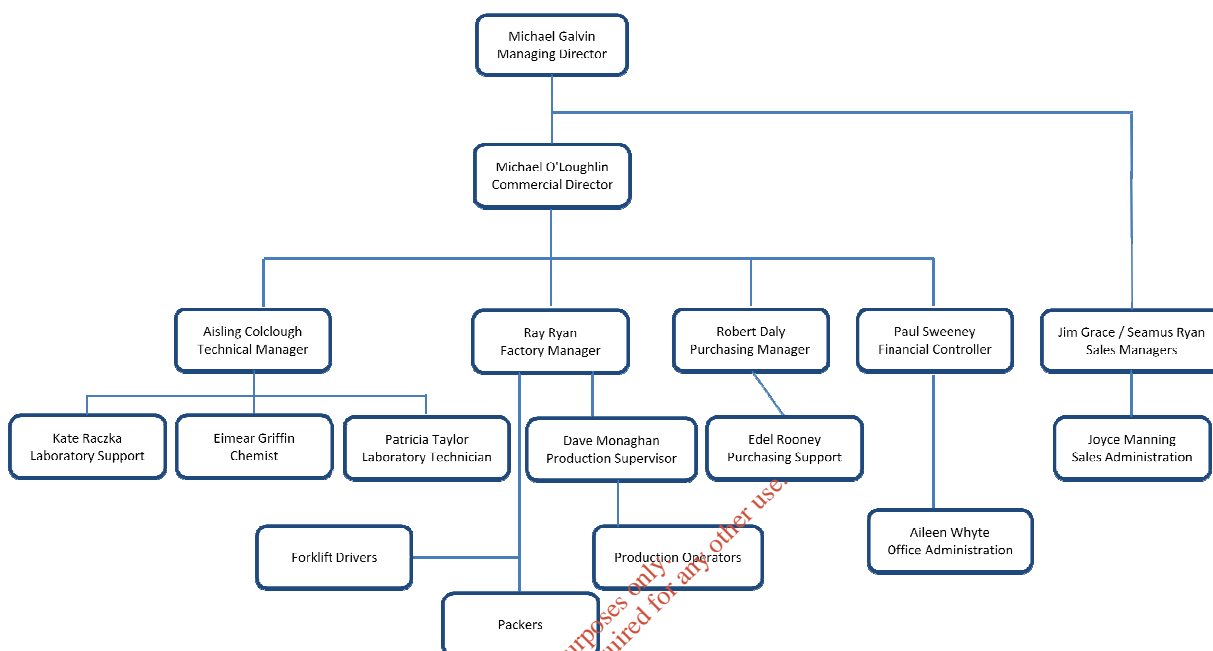
The following text is the environmental policy of the Company:

It is the policy of Burgess Galvin & Co. Ltd. to work with the Environmental Protection Agency (EPA) to monitor the necessary parameters as required by the company's Integrated Pollution Prevention and Control (IPPC) licence and take the appropriate corrective action where applicable. It is the company's policy to review its environmental management procedures and update them where appropriate; and where possible, to improve the standard of environmental protection achieved beyond those required by the IPPC licence.

Burgess Galvin & Co. Ltd. shall endeavour to: (1) minimise the quantity of waste generated from its activities and the resultant effect(s) on the environment; (2) minimise energy usage; (3) use environmentally friendly packaging; and (4) refrain from processing materials, intermediates or products where there is any doubt about their environmental suitability after taking into account the relevant national and EU regulations and internationally accepted guidelines.

Environmental Management at the Site

The following diagram identifies the parts of the company structure that are relevant to the environmental management of the site.



All employees of the Company are expected to carry out their duties in a manner that takes into account the effect of their work on the environment. The Commercial Director plans all activities that have an effect on the environment. The Purchasing Manager seeks tenders from suitable vendors based on their ability to supply raw materials that meet the required specifications and the Technical Manager or Chemist will check that each specification takes into account the environmental impact of the materials.

The material safety data sheet for both raw materials and products give instructions on handling, storage and disposal and where these instructions are relevant to environmental management, the Technical Manager or Chemist give appropriate instructions to the Production Manager and Foreman. The technical team supervise any production activity that has an environmental impact or the potential for one until they are satisfied that it can be routinely carried out without their presence.

In addition, the technical team will request samples of effluent or any other material to be discharged and based on measurements made, will give instructions on the adjustment of the effluent before it is discharged.

Emissions to Sewer

Effluent is discharged to a holding tank, from where it transfers to an overflow tank. The level of effluent in the overflow tank is checked daily. Prior to discharging, the pH and temperature of the effluent are measured and adjusted if necessary.

The table below summarises the characteristics of the emissions to the sewer from the site in 2018. With the exception of pH, which is measured internally, the values given were obtained from the data collated from The Water Lab.

Summary of Results of Tests on Effluent Generated on Site

Parameter	Limits	Average	Maximum Value Observed
C.O.D. (mg/l)	80000	21468	26040
B.O.D. (mg/l)	40000	5627	9000
Suspended solids (mg/l)	12500	3868	5959
Detergent as MBAS (mg/l)	10000	898.3	2750
Oils, Fats & Greases (mg/l)	[a]	145	200
Phosphate as PO ₄ (mg/l)	100	0.53606	0.98
Sulphate as SO ₄ (mg/l)	800	60.064	106.49
pH	6–10	6.91 [b]	9.85

[a] The Company's IPPC licence contains no limit for this parameter.

[b] The average pH value was calculated by:

- converting each pH measurement to the corresponding hydrogen ion activity [i.e. $a(\text{H}^+) = 10^{-\text{pH}}$];
- calculating the average hydrogen ion activity; and
- converting the average hydrogen ion activity to the corresponding pH value.

Temperature

The highest temperature recorded in the reporting period was 26°C. An emission limit maximum of 42°C is imposed by the Company's IPPC licence.

pH

The pH of all samples collected (when effluent was discharged) during the reporting period was inside the licence limits (6–10).

Chemical Oxygen Demand (C.O.D.)

The C.O.D. of the trade effluent generated at the site did not exceed the licence limit for this parameter on any occasion during the reporting period.

Biological Oxygen Demand (B.O.D.)

The B.O.D. of the trade effluent generated at the site did not exceed the licence limit for this parameter on any occasion during the reporting period.

Detergents as MBAS (methylene blue active substances)

The MBAS concentration in trade effluent generated at the site did not exceed the licence limit for this parameter on any occasion during the reporting period.

Suspended Solids

The concentration of suspended solids in trade effluent generated at the site did not exceed the licence limit for this parameter on any occasion during the reporting period.

Oils, Fats and Greases

The average concentration of Oils, Fats and Greases in the samples collected was found to be 145 mg/l. The maximum value observed was 200 mg/l. The site's IPPC licence contains no limit for this parameter.

Orthophosphate (as PO₄)

The Phosphate concentration in trade effluent generated at the site did not exceed the licence limit for this parameter on any occasion during the reporting period.

Sulphate (as SO₄)

The Sulphate concentration in trade effluent generated at the site did not exceed the licence limit for this parameter on any occasion during the reporting period.

Emissions to Sewer – Conclusion

The results of the analyses of the samples of trade effluent collected from the site during the reporting period show that none of the parameters exceeded their limit.

Sample Calculations

This sub-section explains how the results given in AER Returns Workbook for releases to the sewer were calculated. Using Detergent as MBAS as an example, the average value in the samples analysed during the reporting period was 327.9 mg/l \equiv 0.3279 kg/t. The amount of effluent discharged in 2018 was 612.5 t, meaning that the quantity of Detergent as MBAS released to the sewer as a result of effluent discharges in 2018 was $0.3279 \times 612.5 = 200.8$ kg.

Emissions to Air

Emissions to air occur on the site in two ways: fugitive emissions and emissions from the boilers on the site.

The results are given in the AER Returns Workbook. The next two sub-sections explain how the results were calculated.

Fugitive Emissions

Fugitive emissions to the atmosphere occurred in the reporting period during deliveries of vinyl acetate which is stored in bulk at the site.

Using vinyl acetate and assuming ideal gas behaviour, the concentration of vinyl acetate vapour emitted during intake of this material is

$$115 \times 86.09 / (760 \times 24.46) = 0.533 \text{ g/l} \equiv 0.533 \text{ kg/m}^3.$$

where: 115 is the vapour pressure (in mm of Hg) of vinyl acetate at 25°C;

86.09 is the molecular weight (in g/mol) of vinyl acetate;

760 is the atmospheric pressure (in mm of Hg) @ 25°C; and

24.46 is the volume (in cubic metres) occupied by 1 mole of an ideal gas at 25°C.

There are three scenarios in which fugitive emissions can occur:

Emission Scenario	Assumed Emission Rate (m ³ /h)
Bulk tank during filling	13.5
Pumping to monomer holding tank	1.1
Displacement through condenser	1.1
Total	15.7

Using a displacement rate of 15.7 m³/h, the hourly output is calculated as $0.533 \times 15.7 = 8.36$ kg/h.

It takes approximately 2 hours to offload the contents of a bulk tanker and in 2018, there were 11 deliveries of vinyl acetate, meaning that $8.36 \times 2 \times 11 = 183.92$ kg of vinyl acetate were released through fugitive emissions in 2018.

Boiler Emissions

Using the emission of sulphur oxides from the office boiler as an example, the concentration of sulphur oxides (SO_x/SO₂) emitted from the office boiler was found to be 24 mg/Nm³ = 2.4×10^{-5} kg/Nm³ ('N' refers to standard conditions of a temperature of 0°C and a pressure of 101.325 kPa).

The maximum steam output is 480 kg/h which is equivalent to $480/1.28 = 376.4$ m³/h (the density of air is 1.28 kg/m³ under standard conditions).

The maximum thermal output of this boiler is 0.048 kW ($\equiv 4.8 \times 10^{-5}$ MW) giving a maximum steam output of $376.4 \times (4.8 \times 10^{-5}) = 0.018$ m³/h.

This gives an hourly output of $0.018 \times (2.4 \times 10^{-5}) = 4.33 \times 10^{-7}$ kg/h.

Assuming that gases are emitted, on average, 5 minutes every working hour, then the boiler is active for $8 \times (5/60) = 0.67$ h per 8-hour day.

Given that the heater is rarely used from May to August, it is estimated that the boiler is active for 163 days per year, meaning that it is active for $0.67 \times 163 = 109.21$ h per year.

Therefore, sulphur oxides were released from this boiler at a rate of $(4.33 \times 10^{-7}) \times 110.55 = 4.78 \times 10^{-5}$ kg/year.

Surface Water Quality

Emissions to surface water are monitored daily. During the reporting period, no emissions were observed at times when it was not raining, which is to be expected.

One sample was taken during the reporting period when it was raining and tested for clarity, colour, pH and C.O.D. The sample taken was found to be clear and colourless. The pH and C.O.D. values of all the samples complied with the Company's IPPC licence, as demonstrated by the table below.

	Range Observed	Limits
pH	7.09	6.00 – 10.0

C.O.D. (mg/l)	32.14	Upper Action Limit: 80.00
		Upper Warning Limit: 50.00

Agency Monitoring and Enforcement

Emissions Sampling and Analysis by the EPA

Samples of effluent are submitted bimonthly for independent testing by The Water Lab. Samples are also collected by the EPA and Dublin City Council. These results are discussed in Section 2.

EPA Site Visits and Inspections

There was no site inspection carried by the EPA in 2018.

Use of Energy and Resources

The energy used at the site is detailed in the table below:

	2017	2018
Electricity Usage (MWh)	272.773	304.16
Gas Usage (m3)	58057.06	51899

Energy Audit

An energy audit of the site was conducted by independent consultants Environmental Efficiency in 2010. The measures implemented as a result of the audit are described in the document *Energy Audit – Recommendations and Actions*, which was submitted to the EPA.

Water Usage in 2018

Water usage for site	9833 m ³
Discharge of effluent to foul	612.5 m ³
Average weekly discharge (E = D/50)	12.25 m ³
Average daily discharge (F = D/248)	2.47 m ³

Summary of Complaints

No complaints of an environmental nature were received in the period covered by this report.

Waste Management Report

Waste generated on the site consists of packaging, settled solids ('sludge') in the holding tank and effluent in the discharge tank.

Packaging

Much of the packaging waste currently generated is recycled, and the remainder is sent for landfill. Steel drums are recycled by an external contractor. Cardboard is recycled.

Settled Solids

No Sludge was removed from the effluent holding tank in 2018.

Discharges to Sewer

The discharge of trade effluent to the sewer is permitted under the terms of a licence granted by Dublin City Council.

Summary of Waste Disposal/Recycling at the Site

The quantities of waste that were disposed of in 2018 are summarised as follows:

Waste Type	European Waste Code	Description	Quantity
Mixed packaging	15 01 06	Raw material packaging	57.6 t
Metal Drums	15 01 04	Raw material containers	1.35 t
Cardboard	19 12 01	Raw material packaging	10.08 t
Pallets	15 01 03	Pallets	15.8 t
Clinical Waste	18 01 03	Clinical Waste	0.043 t

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Spending on Environmental Protection in 2018

Monitoring / Laboratory Time / Data Analysis / Reports / Correspondence/ Housekeeping	€32,647
Preventative Measures	€16,105
Fees	€14,066
External Testing	€355
Infrastructure	€10,000
Total	€73,173

Pollutant Release and Transfer Register

None of the activities listed in Annex I of Regulation (EC) No. 166/2006 of the European Parliament and of the Council concerning the establishment of a European Pollutant Release and Transfer Register (PRTR) are carried out on the site.

The pollutants listed in Annex II of Regulation (EC) No. 166/2006 are either not released to the air, land or water as a result of activities on the site or if they are released, the quantities released are far less than the relevant thresholds specified in Annex II.

No off-site transfers of either hazardous waste or any pollutant specified in Annex II takes place as a result of activities on the site.

Pollution Emission Register (PER)

Reported incidents

No incident of an environmental nature took place in the period covered by this report.

Performance and Targets

Measurement of Performance in relation to Environmental Objectives for 2018

Objective	Target Date	Performance
1 To maintain the low usage of NaylerGloss has been consistently below 0.5t for 3 years. Aim to keep below 0.3t.	End of 2018	This target was not met. The amount of Naylergloss used in 2018 was 0.966t. Volume of Naylergloss increased as a new formulation came on stream.
2 Attempt to replace phosphates in automatic dishwash powders.	End of 2018	This is still proving difficult, very few raw material replacements available with the same performance and are expensive.

Environmental Objectives and Targets for 2019

Objective	Target
1 Additional improvements	Full review of management system to be done by end 2019
2 Waste reduction/Raw material usage efficiency	Cycle counts, maintain accurate stock +/- 2%.
3. Materials Handling/Storage/Bunding	Bund 2 to be hydrostatically tested by end of 2019.

Environmental Management Proposal for 2019

Burgess Galvin & Co. Ltd. is committed to maintaining an Environmental Management Proposal (EMP).

See Environmental Objectives and Targets for 2019

Designation of Responsibility

The Technical Department shall oversee this project.

Time Frames

Performance shall be reviewed at the end of 2019.

License-Specific Reports

Bund Testing

Of the six bunds on the site, one is scheduled to be done by end May 2019.

Solvent Management Plan

Fugitive emissions, *F*, of the volatile organic compounds (VOCs) were estimated using the methodology of *Statutory Instrument No. 543/2002 - Emissions of Volatile Organic Compounds From Organic Solvents Regulations 2002*, and expressed as a percentage of the total solvent intake.

The results of the analysis found the percentage emitted in fugitive emissions to be 1.875% for 2018. This is far less than the maximum of 5% of total solvent input specified in condition 5.10 of the site's IPPC licence.

Identification and Reduction in Fugitive Emissions

Leakage of material can occur in the following ways:

(a) Leaks from Valve Seals and Flanges

- (i) **Bulk Storage Tanks:** Leaks of liquids from bulk storage tanks, if they occur, would be contained with the bund wall. If it is found to be contaminated, it would be disposed of as described in the material and safety data sheet.
- (ii) **Production Vessels:** If a production vessel were to leak, the leak would be controlled by use of absorbent material and disposed of as described in the material and safety data sheet. In the case of a small leak, it may be released to foul but this will depend on the nature of the material and the instructions given in the material and safety data sheet.

- (iii) **Drum Leaks:** Leaks of liquids from drums would be controlled by use of absorbent material and disposed of as described in the material and safety data sheet.
- (iv) **Spillage of Powdered Material:** Spillage of powdered material would be handled according to instructions described in the material and safety data sheet
- (b) **Losses of Liquid from Storage and Processing Facilities**

Fugitive emissions arise from the addition of vinyl acetate to its storage tank and these emissions are estimated already in this document. Fugitive emissions arising from additions of materials to batches are negligible.
- (c) **Dust Emissions arising from Solids in the Open Air**

Dust arising from the use of the solids is negligible.
- (d) **Emissions arising from Loading and Unloading Operations**

As for (a), (ii) above.
- (e) **Emissions arising from Cleaning Operations**

Whenever possible, production vessels are not washed out between batches. The production schedule is designed so that compatible products are made consecutively.

The production vessels used to manufacture wood preservative do not need to be cleaned. The vessels used are dedicated and residue remaining in a vessel from the production of a given batch is used to produce the next batch of that product.
- (f) **Emissions arising from Waste Water Treatment**

There are no emissions arising from waste water treatment on the site.

Assessment of Water Usage

The vast majority of products manufactured on the site are water-based and this makes it difficult to reduce water usage.

When washing floors or equipment, water is used sparingly.

As stated above in Section 13.3, the production schedule is designed so that compatible products are made consecutively. This minimises the quantity of water used. If possible, product is recycled for use in the production of future batches of appropriate products.

Furthermore, the water-based products manufactured at the site are simply a blending of the materials involved and there are no post-production processes required. This means that the use of water in manufacturing at the site is 100% efficient.

Assessment of Efficiency of Use of Raw Materials

As stated above, the majority of processes used on the site are very mild; the raw materials are simply blended and this makes for very efficient use of those materials.

Wood Preservatives

The manufacture of wood preservatives on the site does not involve chemical reactions; the raw materials, conditions and processes employed are such that the materials used simply blend together with no side reactions. This makes it unnecessary to recover undesirable side products or unused raw materials.

The production vessels used are dedicated and do not need to be washed out in between manufacture of a given product.

Detergents

The vast majority of detergent-manufacturing processes on the site involve a simple blending of the raw materials used. The few processes that do involve chemical reactions do not require the separation of product from unreacted raw materials.

Adhesives

The manufacture of adhesives, all of which are water-based, involves some post-production filtering for some grades. The loss of product as a result of such filtering is relatively small, typically 0.5%.

Assessment of Efficiency of Use of Energy

The Company has a report from an independent consultant that has assessed the company use of energy.

Measures Designed to Prevent Environmental Damage

Mild Process Conditions

The amount heat input to or generated from the processes is either zero or very small. The use of extreme pressures is unnecessary. The mild conditions used make the processes easy to control and minimise any effect they have on the environment.

Discharges to Sewer

The manufacture of wood preservative at this site does not result in any discharges of effluent to the sewer.

The effluent discharged is essentially a mixture of detergents. If necessary, the pH is adjusted before discharge.

Off-site Disposal of Chemical Waste

No chemical waste was disposed of in 2018.

Zero Emissions to Ground

There are no emissions to ground as a result of any activities on the site.

Emissions to Groundwaters

The only emissions to groundwaters on the site result from the discharge of rainwater to surface water outfall, which is controlled by Dublin City Council. The outfall is monitored daily and when emissions occur, a sample is taken and tested for clarity, colour, pH and C.O.D. (see Section 4).

Tank and Pipeline Inspection

The pumps, pipelines and the storage / processing tanks on the site are inspected weekly for leaks. Leakages did not occur at the site in 2018.

Noise Monitoring

In compliance with Condition 6.13 of the Company's IPPC licence, a noise monitoring survey was conducted in 2009 by independent consultants.

The noise generated at the site is minimal and was found by the 2009 survey to comply with the terms of the Company's licence. There is no reason to believe that there has been an increase in the environmental impact of noise from the site since the survey was carried out.

Review of Company's Decommissioning Management Plan

In accordance with condition 10.2.2 of the licence, the Company has reviewed and updated its Decommissioning Management Plan (DMP). The Company does not plan to submit the revised DMP to the EPA because the changes made to the document were minor.

Environmental Liabilities Risk Assessment

As required by the Company's IPPC licence, the Company retained the services of independent consultants to prepare an Environmental Liabilities Risk Assessment (ELRA) in 2010. In accordance with condition 12.3.1 of the licence, the document details the measures in place at the site to prevent environmental damage and the corresponding financial provisions that have been decided upon. This document was submitted to the EPA.

In accordance with condition 12.3.2 of the licence, the Company has reviewed the changes to the site that have taken place since the ELRA was prepared and believes that those changes are not significant enough to affect the contents of the ELRA.

Financial Provision / Indemnity

The Company holds a policy to cover public products liability. The insurance in place to cover accidents under this policy in 2018 is €6.5 m.

13.11. Investigation of Substitution Options

13.11.1 Methyl Ethyl Ketoxime and Tebuconazole

In manufacturing wood preservatives, the Company uses Methyl Ethyl Ketoxime and Tebuconazole. Suitable alternatives to these materials are not currently available. However the customer is reviewing their product range with a view to change due to the BPR. The use of these product will be under review in June 2019.

Name of Material	Usage in 2017 (t)	Usage in 2018 (t)
MEKO	0.33	0.21
Tebuconazole	0.21	0.35

13.11.2 Examination of System to Catch Leaks from Overground Pipes

In accordance with condition 3.10 of its IPPC licence, the Company assessed the feasibility of installing a catchment system to collect any leaks from flanges and valves of all overground pipes used to transport material other than water.

The Company concluded that such a system is not required and the Company's view on this issue has not changed since the assessment. However, the regular checking of leaks (informal and formal) allows the Company to easily re-assess the need for such a system.

Management of Packaging Waste

Mixed Packaging

Packaging waste from the site is collected and disposed of by Thornton Recycling & Recovery. The open-top skips used have a capacity of 14 yd³ and are collected when they are full to minimise the number of collections (the approximate weight of a full skip is 1 tonne). In 2018, 36 skips were collected.

Steel Drums

All metal drums used on the site in 2018 were re-cycled drums.

Settled Solids

No settled solid, 'sludge', was collected in 2018.

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Facility Information Summary	
AER Reporting Year	2018
Licence Register Number	P0075
Name of site	Burgess Galvin & Co.ltd
Site Location	Jamestown Road, Finglas, Dublin 11
NACE Code	2041
Class/Classes of Activity	5.9
National Grid Reference (6E, 6 N)	53.397999, -6.291550

A description of the activities/processes at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental performance which was measured during the reporting year **and an overview of compliance with your licence listing all exceedances of licence limits (where applicable) and what they relate to e.g. air, water, noise.**

The site is located in a mixed industrial and mature residential area in Finglas. The company has been operating in Finglas since the 1950's and on the current site since the early 1970's. The business is a processing activity, manufacturing detergents, adhesives and wood preservatives. The manufacture of the latter 2 classes of product are licensable activities under the first schedule to the Environmental Protection Agency acts 1992 - 2011. About 41 people are employed by the company, the majority of whom live locally.

Declaration:

All the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

Signature	Asiling Colclough	Date
Group/Facility manager	Technical Manager	28/03/2019
(or nominated, suitably qualified and experienced deputy)		

AIR-summary template	Lic No:	P0075	Year	2018
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Answer all questions and complete all tables where relevant

- 1 Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If **you do not have** licenced emissions and **do not complete a solvent management plan** (table A4 and A5) you do not need to complete the tables

Additional information	
No	

Periodic/Non-Continuous Monitoring

- 2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below

No	
----	--

- 3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist?

[Basic air monitoring checklist](#)

[AGN2](#)

No	
----	--

Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision thereof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		

Note 1: Volumetric flow shall be included as a reportable parameter

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AIR-summary template	Lic No:	P0075	Year	2018
Continuous Monitoring				

4	Does your site carry out continuous air emissions monitoring?	No	
	If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)		
5	Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No	
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No	
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	No	

Table A2: Summary of average emissions -continuous monitoring

Emission reference no:	Parameter/ Substance	ELV in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
	SELECT			SELECT	SELECT					
	SELECT			SELECT	SELECT					
	SELECT			SELECT	SELECT					
	SELECT			SELECT	SELECT					
	SELECT			SELECT	SELECT					

note 1: Volumetric flow shall be included as a reportable parameter.

Table A3: Abatement system bypass reporting table

[Bypass protocol](#)

Date*	Duration** (hours)	Location	Reason for bypass	Impact magnitude	Corrective action

* this should include all dates that an abatement system bypass occurred

** an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency inspections please refer to bypass protocol link

AIR-summary template		Lic No:	P0075	Year	2018			
Solvent use and management on site								
8 Do you have a total Emission Limit Value of direct and fugitive emissions on site? if yes please fill out tables A4 and A5				<div>No</div>				
Table A4: Solvent Management Plan Summary Total VOC Emission limit value			<div>Solvent regulations</div> <div>Please refer to linked solvent regulations to complete table 5 and 6</div>					
Reporting year	Total solvent input on site (kg)	Total VOC emissions to Air from entire site (direct and fugitive)	Total VOC emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance			
					SELECT			
					SELECT			
Table A5: Solvent Mass Balance summary								
	(I) Inputs (kg)	(O) Outputs (kg)						
Solvent	(I) Inputs (kg)	Organic solvent emission in waste	Solvents lost in water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	Solvent released in other ways e.g.	Solvents destroyed onsite through	Total emission of Solvent to air (kg)
							Total	

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AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	Lic No:	P0075	Year	2018
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		Additional information
1	Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you <u>only</u> need to complete table W1 and or W2 for storm water analysis and visual inspections	Yes
2	Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising <u>only any evidence of contamination noted during visual inspections</u>	No

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licensed Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
	onsite	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

*trigger values may be agreed by the Agency outside of licence conditions

Table W2 Visual inspections-Please only enter details where contamination was observed.

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			SELECT		
			SELECT		

Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous)

3	Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below	No	Additional information
4	Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box	Yes	External /Internal Lab Quality checklist Assessment of results checklist

Table W3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous)

Emission reference no:	Emission released to	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision thereof ^{Note 2}	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	Procedural reference source	Procedural reference standard number	Annual mass load (kg)	Comments
S1	Wastewater/Sewer	pH	discrete	Daily	Weekly	6-10	No pH value shall deviate from	N/A	pH units	yes	pH Meter (Electrode)	Manufacturer	N/A	N/A	

Note 1: Volumetric flow shall be included as a reportable parameter

Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results against EQS for Surface water or relevant receptor quality standards

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)

Lic No:

P0075

Year

2018

Continuous monitoring

5 Does your site carry out continuous emissions to water/sewer monitoring?

No

Additional Information

If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)

6 Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below

No

7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?

No

8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below

No

Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to	Parameter/ Substance	ELV or trigger values in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Monitoring Equipment downtime (hours)	Number of ELV exceedences in reporting year	Comments
S1	Wastewater/Sewer	pH	6-10	Weekly	No pH value shall deviate from the .specified range	pH units	612500	2.51%	N/A	N/A	
S1	Wastewater/Sewer	Temperature	>42°C	Weekly	No temperature value shall exceed the limit .value	degrees C	612500	2.51%	N/A	N/A	

note 1: Volumetric flow shall be included as a reportable parameter.

Table W5: Abatement system bypass reporting table

Date	Duration (hours)	Location	Resultant emissions	Reason for bypass	Corrective action*	Was a report submitted to the EPA?	When was this report submitted?
						SELECT	

*Measures taken or proposed to reduce or limit bypass frequency

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Bund/Pipeline testing template	Lic No:	P0075	Year	2018
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Bund testing

dropdown menu click to see options

Additional information

Are you required by your licence to undertake integrity testing on bunds and containment structures? If yes please fill out table B1 below listing all **new bunds and containment structures** on site, in addition to **all bunds which failed the integrity test-all bunding structures which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period** (mobile bunds and chemstore included)

1 Please provide integrity testing frequency period

Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to

3 "Chemstore" type units and mobile bunds)

4 How many bunds are on site?

5 How many of these bunds have been tested within the required test schedule?

6 How many mobile bunds are on site?

7 Are the mobile bunds included in the bund test schedule?

8 How many of these mobile bunds have been tested within the required test schedule?

9 How many sumps on site are included in the integrity test schedule?

10 How many of these sumps are integrity tested within the test schedule?

Please list any sump integrity failures in table B1

11 Do all sumps and chambers have high level liquid alarms?

12 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?

13 Is the Fire Water Retention Pond included in your integrity test programme?

Yes	
3 years	
Yes	
6	
5	Remaining bund scheduled for April/May.
1	
Yes	
1	
0	
0	
No	
N/A	
N/A	

Table B1: Summary details of bund /containment structure integrity test

Bund/Containment structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)
Bund 1	reinforced concrete		Raw Material	112.62m3	46.33m3	Hydraulic test		25.06.2018	Yes	Pass		SELECT		
Bund 2	reinforced concrete		Raw Material					27.06.2018		To be completed end 2019	Bund 2 has yet to be hydrostatically tested.	Other (please describe)	May-19	
Bund 3	reinforced concrete		Raw Material	39.08m3	33.84m3	Hydraulic test		26.06.2018	Yes	Pass				
Bund 4	reinforced concrete		Raw Material	34.88m3	26.4m3	Hydraulic test		26.06.2018	Yes	Pass				
Bund 5	reinforced concrete		Raw Material	57.67m3	31.19m3	Hydraulic test		26.06.2018	Yes	Pass				
Bund 6	other (please specify)	Portable Plastic Bund (tapered)	Raw Material	1.25m3	N/A	Hydraulic test		26.06.2018	Yes	Pass		SELECT		
Commentary														

*Capacity required should comply with 25% or 110% containment rule as detailed in your licence

Has integrity testing been carried out in accordance with licence requirements and are all structures tested

15 in line with BS8007/EPA Guidance?

[bundings and storage guidelines](#)

16 Are channels/transfer systems to remote containment systems tested?

17 Are channels/transfer systems compliant in both integrity and available volume?

Yes	
Yes	
Yes	

Pipeline/underground structure testing

Are you required by your licence to undertake integrity testing* on underground structures e.g. pipelines or sumps etc? If yes please fill out table 2 below listing

1 all underground structures and pipelines on site **which failed the integrity test and all which have not been tested within the integrity test period as specified**

2 Please provide integrity testing frequency period

*please note integrity testing means water tightness testing of all underground pipelines (as required under your licence)

No	
SELECT	

Table B2: Summary details of pipeline/underground structures integrity test

Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?	Type of secondary containment	Type integrity testing	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT

Please use commentary for additional details not answered by tables/ questions above

		Comments
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	no
2	Are you required to carry out soil monitoring as part of your licence requirements?	no
3	Do you extract groundwater for use on site? If yes please specify use in comment section	no
4	Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below.	no
5	Is the contamination related to operations at the facility (either current and/or historic)	N/A
6	Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site	N/A
7	Please specify the proposed time frame for the remediation strategy	N/A
8	Is there a licence condition to carry out/update ELRA for the site?	N/A
9	Has any type of risk assessment been carried out for the site?	N/A
10	Has a Conceptual Site Model been developed for the site?	N/A
11	Have potential receptors been identified on and off site?	N/A
12	Is there evidence that contamination is migrating offsite?	N/A

Please provide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER

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Please enter interpretation of data here

Table 1: Upgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration+	unit	GTV's*	SELECT**	Upward trend in pollutant concentration over last 5 years of monitoring data
							SELECT			SELECT
							SELECT			SELECT

.+ where average indicates arithmetic mean

.++ maximum concentration indicates the maximum measured concentration from all monitoring results produced during the reporting year

Table 2: Downgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	SELECT**	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
							SELECT			SELECT
							SELECT			SELECT

Groundwater/Soil monitoring template		Lic No:	P0075	Year	2018															
<p>*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA.</p>		Groundwater monitoring template																		
<p>More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in G31)</p>		Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013)																		
<p>**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)</p>		<table> <tbody> <tr> <td>Groundwater</td> <td>Drinking water</td> <td></td> <td></td> <td></td> </tr> <tr> <td>regulations</td> <td>(private supply)</td> <td>Drinking water (public</td> <td>Interim Guideline</td> <td></td> </tr> <tr> <td>water EQS</td> <td>GTV's</td> <td>standards</td> <td>supply) standards</td> <td>Values (IGV)</td> </tr> </tbody> </table>				Groundwater	Drinking water				regulations	(private supply)	Drinking water (public	Interim Guideline		water EQS	GTV's	standards	supply) standards	Values (IGV)
Groundwater	Drinking water																			
regulations	(private supply)	Drinking water (public	Interim Guideline																	
water EQS	GTV's	standards	supply) standards	Values (IGV)																

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Table 3: Soil results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit
							SELECT
							SELECT

Where additional detail is required please enter it here in 200 words or less

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Environmental Liabilities template	Lic No:	P0075	Year	2018
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[Click here to access EPA guidance on Environmental Liabilities and Financial provision](#)

		Commentary
1	ELRA initial agreement status	Submitted and agreed by EPA
2	ELRA review status	Review required and completed
3	Amount of Financial Provision cover required as determined by the latest ELRA	€11k
4	Financial Provision for ELRA status	Submitted and agreed by EPA
5	Financial Provision for ELRA - amount of cover	€6.5 million
6	Financial Provision for ELRA - type	Environmental Impairment Liability insurance
7	Financial provision for ELRA expiry date	Renewed annually.
8	Closure plan initial agreement status	Closure plan submitted and agreed by EPA
9	Closure plan review status	Review required and completed
10	Financial Provision for Closure status	Submitted and agreed by EPA
11	Financial Provision for Closure - amount of cover	Sale of site.
12	Financial Provision for Closure - type	Environmental Impairment Liability insurance
13	Financial provision for Closure expiry date	Renewed annually.

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Environmental Management Programme/Continuous Improvement Programme template		Lic No:	P0075	Year	2018
Highlighted cells contain dropdown menu click to view		Additional Information			
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes	Environmental Management is covered in the Annual Management Review.		
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes			
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes			
4	Do you maintain an environmental documentation/communication system to inform the public on environmental performance of the facility, as required by the licence	Yes			

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Waste reduction/Raw material usage efficiency	Cycle counts, maintain accurate stock +/- 2%.	20	Scoped at the moment.	Section Head	Improved Environmental Management Practices
Additional improvements	Review IPPC Licence	10	Full review of IPPC licence and management system to be done by end 2019	Section Head	Increased compliance with licence conditions
Materials Handling/Storage/Bunding	Bund 2 to be hydrostatically tested by end of May 2019.	20	Scoped at the moment.	Section Head	Improved Environmental Management Practices

1 Was noise monitoring a licence requirement for the AER period?
If yes please fill in table N1 noise summary below

No

2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6?

No

3 Does your site have a noise reduction plan

No

4 When was the noise reduction plan last updated?

Enter date

5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

No

Noise
Guidance
note NG4

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT

*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection

If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?

SELECT

** please explain the reason for not taking action/resolution of noise issues?

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary

Lic No:

P0075

Year

2018

Additional information

- 1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below
- Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information
- Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information
- 3

26/08/2010	
No	
No	

Table R1 Energy usage on site				
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	885,275	924,04	6.88%	4.38% vs 6.88%
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	272,773	304,16	6.88%	10.32% vs 6.88%
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)				
Natural gas (m3)	58,057	51,899	6.88%	-11.87% vs 6.88%
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)				
Renewable Biomass				
Renewable energy generated on site				

* where consumption of energy can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

Table R2 Water usage on site					Water Emissions	Water Consumption
Water use	Water extracted Previous year m3/yr.	Water extracted Current year m3/yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Volume Discharged back to environment(m ³ /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr
Groundwater						
Surface water						
Public supply	9254	9833	6.88%	6.25% vs 6.88%	612.5	
Recycled water						
Total						

* where consumption of water can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

Table R3 Waste Stream Summary					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)					
Non-Hazardous (Tonnes)					

Resource Usage/Energy efficiency summary	Lic No:	P0075	Year	2018
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Table R4: Energy Audit finding recommendations								
Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Completion date	Status and comments
			energy audit					
			SELECT					
			SELECT					

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry)please complete the following information

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology					
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
Total Starts for year					
Total Running Time					
Total Electricity Generated (GWH)					
House Load (GWH)					
KWH per Litre of Process Water					
KWH per Litre of Total Water used on Site					

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Complaints and Incidents summary template	Lic No:	P0075	Year	2018
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Complaints		Additional information
Have you received any environmental complaints in the current reporting year? If yes please complete summary details of complaints received on site in table 1 below		<div>No</div>

Table 1 Complaints summary							
Date	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action< 20 words	Resolution status	Resolution date	Further information
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
Total complaints open at start of reporting year							
Total new complaints received during reporting year							
Total complaints closed during reporting year							
Balance of complaints end of reporting year							

Incidents		Additional information
Have any incidents occurred on site in the current reporting year? Please list all incidents for current reporting year in Table 2 below		<div>SELECT</div>
*For information on how to report and what constitutes an incident What is an incident		

Table 2 Incidents summary														
Date of occurrence	Incident nature	Location of occurrence	Incident category* please refer to guidance	Receptor	Cause of incident	Other cause (please specify)	Activity in progress at time of incident	Communication	Occurrence	Corrective action<20 words	Preventative action <20 words	Resolution status	Resolution date	Likelihood of reoccurrence
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
Total number of incidents current year														
Total number of incidents previous year														
% reduction/increase														

WASTE SUMMARY	Lic No:	P0075	Year	2018
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SECTION A- WASTE ACCEPTED ONTO SITE-TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES

Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility?; (waste generated within your boundaries is to be captured through PRTR reporting)

If yes please enter details in table 1 below

2 Did your site have any rejected consignments of waste in the current reporting year? If yes please give a brief explanation in the additional information

3 Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information

Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook)

Licenced annual tonnage limit for your site (total tonnes/annum)	EWC code	Source of waste accepted	Description of waste accepted Please enter an accurate and detailed description - which applies to relevant EWC code European Waste Catalogue EWC codes	Quantity of waste accepted in current reporting year (tonnes)	Quantity of waste accepted in previous reporting year (tonnes)	Reduction/ Increase over previous year +/- %	Reason for reduction/ increase from previous reporting year	Packaging Content (%) - only applies if the waste has a packaging component	Disposal/Recovery or treatment operation carried out at your site and the description of this operation	Quantity of waste remaining on site at the end of reporting year (tonnes)	Comments -

SECTION B-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES

4 Is all waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure required onsite

5 Is all waste storage infrastructure as required by your licence and approved by the Agency in place? If no please list waste storage infrastructure required on site

6 Does your facility have relevant nuisance controls in place?

7 Do you have an odour management system in place for your facility? If no why?

8 Do you maintain a sludge register on site?

SECTION C-TO BE COMPLETED BY LANDFILL SITES ONLY

Table 2 Waste type and tonnage-landfill only

Waste types permitted for disposal	Authorised/licenced annual intake for disposal (tpa)	Actual intake for disposal in reporting year (tpa)	Remaining licensed capacity at end of reporting year (m3)	Comments

Table 3 General information-Landfill only

Area ID	Date landfilling commenced	Date landfilling ceased	Currently landfilling	Private or Public Operated	Inert or non-hazardous	Predicted date to cease landfilling	Licence permits asbestos	Is there a separate cell for asbestos?	Accepted asbestos in reporting year	Total disposal area occupied by waste	Lined disposal area occupied by waste	Unlined area	Comments on liner type
										SELECT UNIT	SELECT UNIT	SELECT UNIT	
Cell 8													

WASTE SUMMARY		Lic No:	P0075	Year	2018
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Table 4 Environmental monitoring-landfill only [Landfill Manual-Monitoring Standards](#)

Was meteorological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments

+. please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

Table 5 Capping-Landfill only

Area uncapped*	Area with temporary cap	Area with final cap to LD Standard m2 ha, a	Area capped other	Area with waste that should be permanently capped to date under licence	What materials are used in the cap	Comments
SELECT UNIT	SELECT UNIT					

*please note this includes daily cover area

Table 6 Leachate-Landfill only

9 Is leachate from your site treated in a Waste Water Treatment Plant?

SELECT

10 Is leachate released to surface water? If yes please complete leachate mass load information below

SELECT

Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments

Please ensure that all information reported in the landfill gas section is consistent with the Landfill Gas Survey submitted in conjunction with PRTR returns

Table 7 Landfill Gas-Landfill only

Gas Captured&Treated by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
			SELECT	

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