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Submitted by: 1435698

Submitted time: 16 Jan 2025, 12:40:07

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16 Jan 2025, 12:08:45

survey_end

16 Jan 2025, 12:40:00

Compliance Assessment Report 1 for Landfill Sites

Inspection Team

PPC

assignment_title

BlueSky Resource Recovery Ltd : P0145/06A : Blue Sky Resource Recovery Ltd.

Company

BlueSky Resource Recovery Ltd

PPC/WML ID

P0145/06A

Operator

Blue Sky Resource Recovery Ltd.

Second Officer ID

lone visit

General weather conditions

- **Cloudy**
- **Dry**

Waste Type

- **Non-Hazardous**

Inspection Type

Follow-up

Is the site operational?

Closed landfill

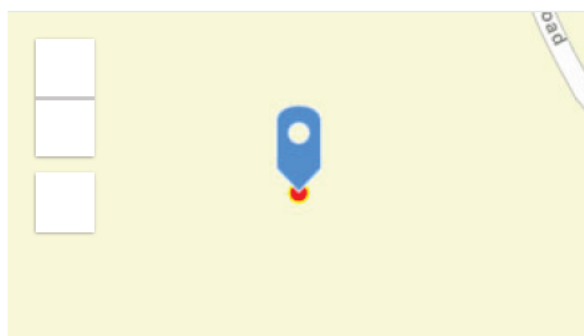
Operation notes

Site accepting filter cake only

Location Data

Site Location

Lat: 54.338666 Lon: -6.388607



Esri Community Maps Contributors, Esri UK, Esri, TomTom, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS Powered by Esri

Inspection Results

1. Specified operations

0

2. Permitted waste types and quantities

0

3. Staff understanding of permit

NI

4. Engineered Landfill Containment Systems

0

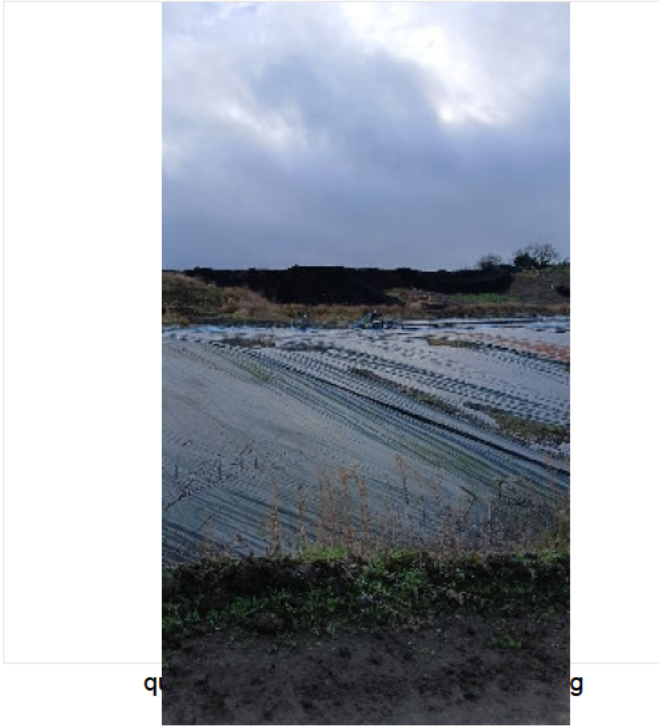
5. Leachate management and monitoring systems

0

6. Landfill Gas management and monitoring systems

1

Photo



7. Surface water management systems

NI

8. Installation, maintenance and protection of final cap

NI

9. Site Identification Board

0

10. Site Security

0

11. Control of mud and debris

0

12. Potentially polluting leaks and spillages

NI

13. Fires on site

0

14. Waste acceptance and control procedures

NI

15. Record of specified operation

NI

16. Daily and intermediate cover

NI

17. Phasing and methods of discharge and emplacement

NI

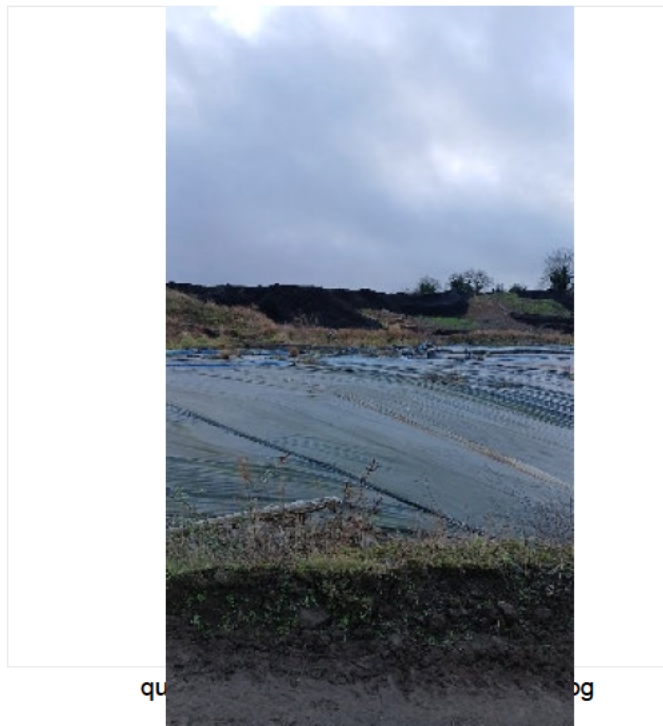
18. Monitoring/control of dusts, fibres and particulates

NI

19. Monitoring and Control of Odours

1

Photo



20. Control of noise

0

21. Control of pest infestations

0

22. Control of litter

0

23. Monitoring and control of Birds/Scavenging Animals

0

24. Security and availability of records

NI

25. Maintenance of financial provision

No

General Comments

**Strong landfill gas odour downwind at gas well 9. Likely to cause impact beyond boundary in terms of odour.
No appearance blending of filter cake deposited.**

Additional Photos

Photo



adog



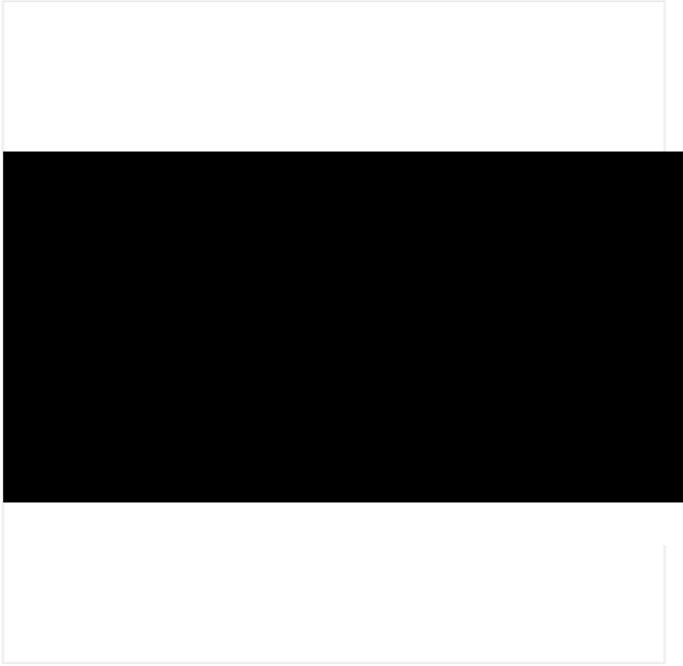
adog



adog

DAERA Privacy Statement

Lead Officer Signature



sig_lead-20250116-123543.jpg

Variation Notice with introductory note

The Pollution Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013

Lisbane Landfill Site

29 Aughlish Road
Tandragee
County Armagh
BT62 2EE

Permit number

P0145/06A

Variation Notice Number

P0145/06A/V7

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Lisbane Landfill Site

Variation Notice Number P0145/06A/V7

Introductory note

This introductory note does not form a part of the Permit

The following Notice is issued under Regulation 19 (Variation of Conditions) of the Pollution Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013 ("the Regulations") to vary the conditions of a Permit issued under those Regulations to operate an installation carrying out one or more of the activities listed in Part 1 to Schedule 1 of those Regulations. The Notice comprises a Schedule containing conditions to be deleted, amended and/or added.

The Notice includes conditions that have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by those conditions are subject to the condition implied by Regulation 12(9) of the Regulations, that the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

The enforcing authority for part A installations in Northern Ireland is the Chief Inspector. Under Regulation 8(4) any function of the Chief Inspector may be delegated to any other Inspector appointed by the Department of Agriculture, Environment and Rural Affairs and references to the Chief Inspector should be interpreted accordingly.

The Chief Inspector has assigned responsibility for specified waste management activities to the Regulation Unit.

The main features of the installation are as follows:

Lisbane Landfill occupies a former steep sided quarry within greywacke sandstones of the Gala Group, Silurian in age. This Gala group is considered to be a minor aquifer with a fracture based porosity/permeability. The site was excavated to approximately 30m deep below its eastern, and lowest, crest. It is an existing non-hazardous landfill, with a stable non-reactive hazardous cell. The site has accepted a variety of primarily non-hazardous waste types since the start of filling in 1997.

The site was engineered as a containment landfill with a groundwater management system outside a composite lining system. The basal liner incorporated a composite engineered containment system consisting of BES and GCL overlain by HDPE and protective geotextile. It is understood that the basal engineering progressed up the shallow side walls to a vertical height of 3m. The steeper quarry sides include a containment specification of GCL overlain by HDPE, protection geotextile and geogrid.

Directly beneath the basal containment a groundwater management system was constructed. The groundwater pipework emerges at two separate and independent sumps or abstraction points, to the northeast of the landfill footprint. Groundwater is no longer abstracted from these sumps as the site is hydraulically contained.

Leachate drainage over the base of the site is provided either in the form of herringbone drains or as a drainage blanket. Leachate is pumped to the onsite leachate treatment facility (MBR) before being tankered off site for further treatment at the wastewater treatment works. The site has gas exploitation with a single gas engine and flare installed.

The permit was varied in July 2018 (V5) to change the use of the site to allow for the acceptance of inert wastes only. Lisbane Landfill ceased accepting non-hazardous waste in June 2013, the site resumed accepting inert waste to bring the site to final approved restoration levels.

A surface sealing layer compliant with the Landfill Regulations is installed over the current temporary capping layer. This is comprised of a GCL and a surface water geocomposite drainage layer. The remaining slopes of the quarry will be lined with a minimum of 1m low permeability soils with a minimum permeability of $1 \times 10^{-7} \text{m/s}$ to allow for the acceptance of inert waste.

The annual waste acceptance tonnage and EWC codes were also amended. The variation also made changes to the monitoring regime by removing down gradient groundwater monitoring borehole BH5A and the groundwater lagoon from the monitoring requirements.

The change of company name from Quinn Environmental Limited to Armagh Power Generation Limited was also included in this variation.

The permit was varied in December 2020 (V6), this time to change the company name from Armagh Power Generation Limited to BlueSky Resource Recovery Limited and to update the registered office address to 29 Aughlish Road, Tandragee, Craigavon, Armagh, BT62 2EE. The company registration number remains the same.

Brief description of the changes introduced by this notice:

The purpose of this variation is to increase the annual waste acceptance tonnage from up to 75,000 to 200,000 and also to remove monitoring boreholes BH1, BH7A, BH11 and BH12 from the monitoring schedule. NIEA have determined that the monitoring conditioned in the varied permit will provide an accurate indication of impacts on the surrounding environment.

Status Log of the Permit

Detail	Date	Response Date
PPC Application Received	03/07/2006	
Permit Determined	17/07/2009	
Permit Variation Determined P0145/06A/V1	07/08/2009	
Permit Variation Determined P0145/06A/V2	13/10/2014	
Permit Variation Determined P0145/06A/V3	11/11/2015	
Permit Variation Determined P0145/06A/V4	16/02/2016	
Permit Variation Determined P0145/06A/V5	27/07/2018	
Permit Variation Determined P0145/06A/V6	16/12/2020	
Permit Variation Determined P0145/06A/V7	29/07/2021	

Other PPC Permits relating to this installation

Operator	Permit Number	Date of Issue
N/A		

Superseded or Partially Superseded Licences/Authorisations/Consents relating to this installation

Holder	Reference Number	Date of Issue	Fully or Partially Superseded
Sean Quinn Group	10920/94	18/01/2000	Fully Superseded
Quinn Concrete Ltd	LN/04/11A	04/01/2005	Fully Superseded

Other existing Licences/Authorisations/Registrations relating to this site

Holder	Reference Number	Date of issue
N/A		

Talking to us

This permit is issued by the Regulation Unit of the Northern Ireland Environment Agency. We can be contacted on the telephone using the telephone number 028 9056 9747.

The Operator should use the Emergency Hotline telephone number (0800 80 70 60) to notify of any accident which has caused or has the potential to cause water pollution.

Confidentiality

The Permit requires the Operator to provide information to the Chief Inspector. We will place the information onto the public registers in accordance with the requirements of the Regulations. If the Operator considers that any information provided is commercially confidential, they may apply to the Chief Inspector to have such information withheld from the register as provided in the Regulations. To enable us to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.

Variations to the permit

This Permit may be varied in the future. The Status Log within the Introductory Note to any such variation will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the permit

Before this Permit can be wholly or partially surrendered, an application to surrender the Permit has to be made. For the applicant to be successful, they would have to be able to demonstrate to the Chief Inspector, in accordance with Regulation 22, where applicable, of the Regulations, that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

Transfer of the permit or part of the permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 20 of the Regulations. A transfer will be allowed unless the Chief Inspector considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit. If the Permit authorises the carrying out of a specified waste management activity, then there is a further requirement that the transferee is considered to be a "fit and proper person" to carry out that activity.

End of Introductory Note

Permit

Pollution Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013

Landfill Regulations (Northern Ireland) 2003

Variation Notice

Landfill Classification: Non-hazardous

Variation Notice Number

P0145/06A/V7

The Chief Inspector in exercise of his powers under Regulation 19 of the Pollution Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013 and Regulation 6 of the Landfill Regulations (Northern Ireland) 2003 hereby varies Permit Number P0145/06A, as held by;

BlueSky Resource Recovery Limited ("the Operator"),

Whose Registered Office is

29 Aughlish Road

Tandragee

Craigavon

Armagh

BT62 2EE

Company Registration Number: NI067779

to operate an installation at

Lisbane Landfill Site

29 Aughlish Road

Tandragee

Armagh

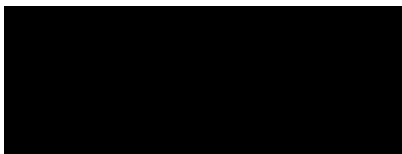
BT62 2EE

to the extent authorised by and subject to the conditions in the Schedule to this Notice

This Notice shall take effect from 29th July 2021

Signed

Date

	29 th July 2021
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Authorised to sign on behalf of the Chief Inspector

SCHEDULE TO NOTICE

1. CONDITIONS TO BE DELETED

All existing conditions for permit P0145/06A/V6.

2. CONDITIONS TO BE ADDED

The following conditions and schedules.

CONDITIONS

1. Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities in accordance with a Site Specific Management Plan (The Management Plan), agreed by the Chief Inspector, that shall detail the operational procedures to be used to manage the Activities at the Site.

The Management Plan shall detail measures to prevent emissions to soil and groundwater from non-landfill activities in addition to landfill activities.

The Management Plan shall include (but not limited to) the following:

- Site infrastructure
- Site management and control procedures
- Waste acceptance procedures
- Waste rejection and quarantine procedures
- Waste deposit procedures
- Emergency/incident procedures
- Environmental monitoring techniques and procedures
- Odour and odorous waste monitoring and management procedures
- Noise and vibration monitoring and management procedures
- Leachate monitoring and management procedures
- Surface water monitoring and management procedures
- Landfill gas monitoring , flaring/utilisation and management procedures
- Dusts and particulates monitoring and management procedures
- Birds, vermin and insects monitoring and management procedures
- Site closure management procedures

- 1.1.2 The Activities shall, subject to the conditions of this permit, be managed and operated:
- (a) using the techniques and in the manner described in the Management Plan provided and agreed in accordance with condition 1.1.1, unless otherwise agreed in writing by the Chief Inspector; and
 - (b) by sufficient persons who are technically competent in respect of the responsibilities to be undertaken by them in connection with the operation of the Activities.
- 1.1.3 Any proposed changes by the Operator to the Management Plan shall be submitted in writing by Recorded Delivery to the Chief Inspector. The Management Plan shall only be amended in accordance with the proposed change(s) if, and to the extent that, either;
- (a) the Chief Inspector gives written consent to the proposed change(s), or
 - (b) the Chief Inspector has not indicated in writing within 28 days of the proposed change(s) that the proposed change(s) are rejected.
- 1.1.4 Records demonstrating compliance with condition 1.1.2 shall be maintained.

- 1.1.5 Any person having duties that are or may be affected by the matters set out in this Permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.6 The Operator shall undertake a daily inspection of the site for compliance with the conditions of this Permit. The inspection shall include, but not be limited to:
- (a) Site boundary and security measures;
 - (b) Site infrastructure;
 - (c) Fugitive emissions;
 - (d) Gas,
 - (e) Odour;
 - (f) Noise and vibration;
 - (g) Birds, vermin and insects;
 - (h) Litter.
- 1.1.7 A record shall be kept of each inspection undertaken in accordance with condition 1.1.6, including the following details:
- (a) Date and start and finish times of inspection;
 - (b) Person(s) carrying out the inspection;
 - (c) Areas of non-compliance identified;
 - (d) Actions taken or to be taken to rectify any non-compliance, including timescales.

1.2 Breach of permit conditions

- 1.2.1 In the event that a breach of any permit condition poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the Operator shall immediately suspend the operation of the installation or the relevant part of it until compliance with permit conditions has been restored.
- 1.2.2 In the event of a breach of any permit condition, the Operator shall inform the Chief Inspector immediately using the means referred to in condition 5.3.2 and take the measures necessary to ensure that compliance is restored within the shortest possible time.

1.3 Accidents that may cause pollution

- 1.3.1 The Operator shall:
- (a) maintain and implement an accident management plan;
 - (b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;
 - (c) make any appropriate changes to the plan identified by a review.
- 1.3.2 The Operator shall inform the Chief Inspector, immediately, of any accident which has caused, is causing or has the potential to cause significant pollution and to immediately take all appropriate measures to limit the environmental consequences and to prevent further possible accidents.

1.4 Finance

- 1.4.1 The Operator shall make adequate financial provision which has been agreed with the Chief Inspector. This financial provision shall be maintained by the Operator throughout the subsistence of this Permit and the Operator shall produce evidence of such provision whenever required by the Chief Inspector.
- 1.4.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
- (a) the costs of setting up and operating the landfill;
 - (b) the costs of the financial provision required by condition 1.4.1; and
 - (c) the estimated costs for the closure and aftercare of the landfill.

1.5 Energy efficiency

- 1.5.1 The Operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the Activities;
 - (b) review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the Activities; and
 - (c) implement any appropriate measures identified by a review.

1.6 Avoidance, recovery and disposal of wastes produced by the activities

- 1.6.1 The operator shall take appropriate measures to ensure that:
- (a) The waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) Any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) Where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.6.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

1.7 Site security

- 1.7.1 Site security measures shall prevent unauthorised access to the Site, as far as practicable.

1.8 Multiple operator installations

- 1.8.1 This is not a multi operator installation.

2. Operations

2.1 Permitted activities

- 2.1.1 The Operator is authorised to carry out the activities specified in Schedule 1 Table S1.1 (the "Activities") at the Permitted Installation to which this permit applies.

2.2 The site

- 2.2.1 The Activities shall not extend beyond the site of the Permitted Installation ("the Site"), being the land shown edged in *red* on the Site Plan in Schedule 2 to this Permit.

2.3 Off-site conditions

- 2.3.1 There are no off-site conditions.

2.4 Commencement

- 2.4.1 The Operator shall not commence disposal operations in any new phase at the Permitted Installation until the Operator has received written confirmation from the Chief Inspector in terms of Regulation 13 of the Landfill Regulations (NI) 2003.
- 2.4.2 Nothing in condition 2.4.1 shall in any way reduce the obligations of the Operator to comply with the Conditions of this Permit.

2.5 Pre-operation Conditions

- 2.5.1 There are no pre-operating conditions.

2.6 Improvement programme

- 2.6.1 The Operator shall complete any improvements specified in Schedule 1 Table S1.3 by the date specified in that table unless otherwise agreed in writing by the Chief Inspector.

2.7 Engineering

- 2.7.1 The Operator shall ensure that the geological barrier and leachate collection and sealing system for the landfill part of the Installation shall be constructed to the specification and standards detailed within the Application for the Installation.
- 2.7.2 No construction of any New Phase/Cell shall commence until the Operator has submitted Construction Proposals and the Chief Inspector has confirmed that he is satisfied with the Construction Proposals.
- 2.7.3 The construction of a New Phase/Cell shall take place only in accordance with the approved Construction Proposals unless:
- (a) any change to the approved Construction Proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Chief Inspector.

- 2.7.4 No disposal of waste shall take place in a New Phase/Cell until the Operator has submitted a CQA Validation Report and the Chief Inspector has confirmed that he is satisfied with the CQA Validation Report.
- 2.7.5 No construction of Landfill Infrastructure shall commence until the Operator has submitted relevant Construction Proposals or a written request to use previous Construction Proposals and the Chief Inspector has confirmed that he is satisfied with the Construction Proposals.
- 2.7.6 The construction of the Landfill Infrastructure shall take place only in accordance with the approved Construction Proposals unless:
- (a) any change to the approved Construction Proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Chief Inspector.
- 2.7.7 The Operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant Landfill Infrastructure.
- 2.7.8 A resistivity leak location survey of the basal and sidewall flexible membrane artificial sealing liner shall be undertaken following completion of any containment works. Any defects identified in the liner shall be repaired and re-surveyed. The results of the surveys and details of the rectification of any defects shall form part of the CQA Validation Report.
- 2.7.9 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.7.5 and 2.7.6 do not apply and the relevant Landfill Infrastructure may be constructed, provided that the Construction Proposals are submitted to the Chief Inspector as soon as practicable.
- 2.7.10 For the purposes of conditions 2.7.2, 2.7.4 and 2.7.5, the Chief Inspector shall be deemed to be satisfied where he has not, within the period of 4 weeks from the date of receipt of the relevant Construction Proposals or CQA Validation Report, either:
- (a) confirmed whether or not he is satisfied; or
 - (b) informed the Operator that he requires further information.

2.8 Waste acceptance

- 2.8.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in Schedule 3, and
 - (b) they are not hazardous waste, and
 - (c) they are not whole used tyres (other than tyres used as engineering material, bicycle tyres and tyres with an outside diameter of more than 1400mm), and
 - (d) they are not shredded used tyres, and
 - (e) they are not liquid waste (including waste waters but excluding sludge), and
 - (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
 - (g) they are not hospital and other clinical waste arising from medical or veterinary establishments, which are infectious, and

- (h) there are not wastes which in the conditions of a landfill are explosive, corrosive, oxidising, highly flammable or flammable (55 °C flash point), and
- (i) they are not separately collected food wastes, and
- (j) all the relevant waste acceptance procedures set out in Schedule 1 of the Landfill Regulations (NI) 2003, and
- (k) they fulfil the relevant waste acceptance criteria, and
- (l) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
- (m) they are wastes which have been subject to prior treatment, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment.

2.8.2 The deposit of gypsum and other high sulphate bearing waste shall be prevented.

2.8.3 The deposit of waste sludges, screenings and any other similar inherently odorous wastes shall only be undertaken upon prior notification and approval by the Chief Inspector and in accordance with the approved Acceptance Procedure.

2.8.4 The Operator shall visually inspect:

- (a) without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill; and
- (b) waste at the point of deposit;

and shall satisfy itself that it conforms to the basic characterisation documentation submitted by the holder.

2.8.5 Where the Operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.

2.8.6 The Operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

2.8.7 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on Drawing No. 15047-405 (Site Closure Plan October 2016).

2.8.8 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in Schedule 1 Table S1.4.

2.8.9 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the Operator as commercially confidential shall be clearly identified in the record.

2.8.10 Where acceptance of waste is refused, the Operator shall notify the Chief Inspector by telephone immediately and shall notify the Chief Inspector in writing within seven days of refusing acceptance.

2.9 Leachate levels and control

- 2.9.1 The limits for the level of leachate listed in Table S4.1 of Schedule 4 shall not be exceeded.

2.10 Closure, aftercare and decommissioning

- 2.10.1 The Operator shall maintain and operate the Activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.
- 2.10.2 The Operator shall maintain a Site Closure Plan which demonstrates how the Activities can be decommissioned to avoid any pollution risk and return the site of operation to a satisfactory state.
- 2.10.3 The Operator shall carry out and record a review of the Site Closure Plan at least every 4 years.
- 2.10.4 The Site Closure Plan (or relevant part thereof) shall be implemented on final cessation or decommissioning of the Activities or part thereof.

2.11 System for the protection of soil and groundwater

- 2.11.1 The Operator shall carry out monitoring of the condition of groundwater and soil and compare with the measurements in the baseline report (or previous application site report), at least every 5 years for groundwater and every 10 years for soil unless such monitoring is based on a systematic appraisal of the risk of contamination.
- 2.11.2 Where the Operator has made an acceptable case that a baseline report is not required at the application stage, a review of this conclusion is required at least every 5 years.

3. Site Infrastructure

3.1 Site access

- 3.1.1 All roads within the Permitted Installation shall be adequate in both width and bearing capacity for all vehicles that may be required to use that particular road. All such roads shall be free of obstacles at all times that the site is open for the reception of waste. All such roads shall be maintained to ensure the safe passage of vehicles and in particular shall be free from mud and other debris, ruts, potholes and ponded surface water. Wheel cleaning facilities shall be installed and maintained at the site.

3.2 Noticeboards

- 3.2.1 A notice board of durable material and finish shall be displayed at the entrance to the Site. The notice board shall contain the following information, which shall be legible from outwith the boundary of the Site:-
- the Site name, address and PPC number;
 - the Site Operator's name;
 - the Site opening times;
 - emergency contact telephone number for the Operator; and
 - telephone number of the NIEA Regulation Unit.

3.3 Liquid storage

- 3.3.1 All containers used to store any liquids whose emission to water or land could cause pollution within the Permitted Installation shall be located in a bund. The minimum capacity of any bund shall be either 110% of the capacity of the largest container, or 25% of the total capacity of all the containers within the bund, whichever is the greater. In the event of any containers being connected to one another, they shall be treated as one container.
- 3.3.2 The bunded area(s) and containers shall conform to the following standards:
- (a) the walls and base of the bund shall be impermeable;
 - (b) the base shall drain to a sump;
 - (c) when not in use all taps, valves, pipes and every part of each container shall be located within the area served by the bund;
 - (d) vent pipes shall be directed downwards into the bund;
 - (e) no part of the bund shall be within 10 metres of a watercourse; and
 - (f) all containers with a design capacity above 1000 litres shall be fitted with a device for continuously monitoring the level of the contents.
- 3.3.3 The accumulation of rainwater, spillages or leaks shall be managed to ensure that at least 95% of the capacity of the bund is free of liquid.

4. Emissions and monitoring

4.1 Emissions to water, air or land

- 4.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in Tables S4.5 and S4.7 of Schedule 4.
- 4.1.2 The limits given in that Schedule shall not be exceeded, save that compliance with an emission limit shall include incorporation of the uncertainty allowance stated in Environment Agency guidance documents LFTGN 05 and LFTGN 08.

4.2 Emissions to groundwater

- 4.2.1 There shall be no emission from the Activities into groundwater of any Hazardous Substance (as defined by the Groundwater Regulations) contrary to those Regulations.
- 4.2.2 There shall be no emission from the Activities into groundwater of any Non Hazardous Pollutants (as defined in the Groundwater Regulations) so as to cause pollution (as defined in those Regulations).
- 4.2.3 Where the results of any groundwater monitoring exceed any of the trigger levels set out in Table S4.3 of Schedule 4 then the following actions shall be taken:
- (a) The Chief Inspector shall be informed forthwith;
 - (b) A repeat sample shall be taken, and submitted for analysis, within 7 days;

- (c) Within 14 days of the repeat sample the Operator shall submit a report to the Chief Inspector, in writing, detailing the breach of the trigger level and proposed remedial actions.
- 4.2.4 The Operator shall evaluate all groundwater monitoring results against control levels following receipt of results. Where the evaluation of the monitoring data shows any parameter exceeding a control level, the Operator shall report this to the Chief Inspector, in writing, within 28 days.
- 4.2.5 The Operator shall submit to the Chief Inspector a review of the Hydrogeological Risk Assessment:
 - (a) between 9 and 6 months prior to the fourth anniversary of the granting of the original Permit, and
 - (b) between 9 and 6 months prior to every subsequent 4 years after the fourth anniversary of the granting of the Permit, unless otherwise agreed in writing with the Chief Inspector.

4.3 Fugitive emissions of substances

- 4.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The Operator shall not be taken to have breached this condition if appropriate measures have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 4.3.2 Litter or mud arising from the Activities shall not cause pollution. The Operator shall not be taken to have breached this condition if appropriate measures have been used to prevent or where that is not practicable to minimise, the litter and mud.
- 4.3.3 Litter or mud arising from the Activities shall be cleared from affected areas outside the Site as soon as practicable.
- 4.3.4 The measured values from the monitoring specified in Tables S4.7, S4.9 and S4.10 of Schedule 4 shall not exceed the limits for the parameter(s) at the monitoring point(s) listed in that schedule.

4.4 Odour

- 4.4.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an Authorised Officer of the Chief Inspector, unless the Operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise odour.

4.5 Noise and vibration

- 4.5.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause annoyance outside the Site, as perceived by an Authorised Officer of the Chief Inspector, unless the Operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

4.6 Birds, Vermin and insects

- 4.6.1 All operations on the Site shall be carried out so as to prevent or minimise the nuisance and hazards arising from the Site in respect of the presence of birds, vermin and insects. In addition to the daily inspection required by Condition 1.1.6, the Site shall be inspected for the presence of birds, vermin and insects at least once every three months by a person suitably qualified and experienced in pest control and a treatment programme shall be immediately undertaken to deal with any identified infestation.

4.7 Monitoring

- 4.7.1 The Operator shall, unless otherwise agreed in writing by the Chief Inspector, undertake monitoring for the parameters, at the locations and at not less than the frequencies specified in the following tables in Schedule 4 to this Permit:
- (a) Leachate specified in Tables S4.1 and S4.2;
 - (b) Point source emissions specified in Table S4.5 and S4.7;
 - (c) Groundwater specified in Tables S4.3, and S4.4;
 - (d) Landfill gas specified in Tables S4.8, S4.9 and S4.10;
 - (e) Surface water specified in Table S4.5 and S4.6.
 - (f) Particulate matter specified in Table S4.11.
- 4.7.2 The Operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 4.7.3 A topographical survey of the site referenced to Ordnance Datum shall be carried out:
- (a) annually, and
 - (b) prior to the disposal of waste in any new Phase or Cell or new development area of the landfill, and
 - (c) following closure of the landfill or part of the landfill.

The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the Site. A calculation of void space shall be carried out upon completion of each annual survey and the results of the survey and the calculation shall be provided to the Chief Inspector within one month of the survey being carried out.

5. Information

5.1 Records

- 5.1.1 All records required to be made by this Permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;

- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Chief Inspector, for at least 6 years from the date when the records were made, or in the case of the following records until Permit surrender:
 - (i) the results of groundwater monitoring;
 - (ii) the results of soil and groundwater monitoring referred to in condition 2.11.1;
 - (iii) ambient air monitoring for landfill gas and particulate matter;
 - (iv) sub-surface landfill gas monitoring;
 - (v) leachate levels, quality and quantities;
 - (vi) landfill gas generation and collection;
 - (vii) waste types and quantities;
 - (viii) topographical surveys; and
 - (ix) the specification and as built drawings of the basal, sidewall and capping engineering systems.
- 5.1.2. Any records required to be made by this permit shall be supplied to the Chief Inspector within 14 days where the records have been requested in writing by the Agency.
- 5.1.3 All records required to be held by this permit shall be held on site and shall be available for inspection by the Chief Inspector at any reasonable time.

5.2 Reporting

- 5.2.1 A report or reports on the performance of the Activities over the previous year shall be submitted to the Chief Inspector by 31 January (or other date agreed in writing by the Chief Inspector) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with this Permit against the relevant assumptions, parameters and results in the risk assessments submitted with the Application;
 - (b) where the Operator's Management Plan encompasses annual improvement targets, a summary report of the previous year's progress against such targets;
 - (c) the energy consumed at the Site, reported in the format set out in Schedule 5 Table S5.3;
 - (d) the water consumed at the Site, reported in the format set out in Schedule 5 Table S5.3;
 - (e) the annual production/treatment set out in Schedule 5 Table S5.2;
 - (f) details of any contamination or decontamination of the Site which has occurred;
 - (g) the topographical surveys required by condition 4.7.3 other than those submitted as part of a CQA validation report;
 - (h) the volumetric difference (reported in cubic meters) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;

- (i) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
 - (j) a calculation of the remaining capacity (reported in cubic meters) derived from the pre-settlement contours and the most recent topographical survey; and
 - (k) the compliance testing undertaken in the period.
 - (l) a summary of the WAC compliance testing undertaken in the period.
- 5.2.2 Within 28 days of the end of the reporting period the Operator shall, unless otherwise agreed in writing by the Chief Inspector, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in Table S5.1 of Schedule 5;
 - (b) for the reporting periods specified in Table S5.1 of Schedule 5.
- 5.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Chief Inspector within one month of the end of the quarter and shall be in the format required by the Chief Inspector.
- 5.2.4 The Operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Chief Inspector, within 6 months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 5.2.5 The results of reviews and any changes made to soil and groundwater monitoring referred to in condition 2.11.2 shall be reported to the Chief Inspector, within 1 month of the review or change.
- 5.2.6 The Operator shall complete a Pollution Inventory Reporting Form in respect of the Permitted Installation during the previous year in accordance with the instructions and definitions included in the Form and submit the completed Form to the Chief Inspector by 31 January each year.

5.3 Notifications

- 5.3.1 The Chief Inspector shall be notified without delay following the detection of:
- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;
 - (b) the breach of a limit specified in the Permit;
 - (c) the breach of a permit condition; and
 - (d) any significant adverse environmental effects.
- 5.3.2 Any information provided under condition 5.3.1 shall be confirmed by sending the information listed in Schedule 6 to this Permit within the time period specified in that schedule.
- 5.3.3. Prior written notification shall be given to the Chief Inspector of the following events and in the specified timescales:

- (a) as soon as practicable prior to the permanent cessation of any of the permitted activities;
 - (b) as soon as practicable prior to the cessation of the landfill disposal activities, for a period likely to exceed 1 month; and
 - (c) at least 7 days prior to the resumption of the landfill disposal activities after a cessation notified under (b) above.
- 5.3.4 The Chief Inspector shall be given at least 14 days notice before implementing any part of the Site Closure Plan in respect of any activities other than the disposal of waste in the landfill.
- 5.3.5 Where the Chief Inspector has requested in writing that he shall be notified when the Operator is to undertake monitoring and/or spot sampling, the Operator shall inform the Chief Inspector when the relevant monitoring is to take place. The Operator shall provide this information to the Chief Inspector at least 14 days before the date the monitoring is to be undertaken.
- 5.3.6 The Chief Inspector shall be notified within 7 days of any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence.
- 5.3.7 The Chief Inspector shall be provided, within 14 days of the Operator or any relevant person being convicted of a relevant offence, (unless such information has already been notified to the Chief Inspector), with details of the nature of the offence, the place and date of conviction, and the sentence imposed.
- 5.3.8 The Chief Inspector shall be notified within 14 days of the Operator and/or any relevant person lodging an appeal against a conviction for any relevant offence and of the outcome when the appeal is decided.
- 5.3.9 The Chief Inspector shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
 - (a) any change in the Operator's trading name, registered name or registered office address;
 - (b) any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary); and
 - (c) any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.

5.4 Interpretation

- 5.4.1 In this Permit the expressions listed in Schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 Activities

Activity listed in Schedule 1 of the PPC Regulations	Description of specified activity	Limits of specified activity
Section 5.2 Part A (a) The disposal of waste in a landfill	Landfill for non-hazardous waste (landfill classification under the Landfill Regulations 2003)	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in condition 2.8, as an integral part of landfilling. Only wastes which meet the waste acceptance criteria for inert landfills shall be accepted.
Section 5.4 Part A (a) (i) The disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by biological treatment	Leachate treatment system	Receipt and treatment of leachate from the Permitted Lisbane Landfill.
Directly Associated Activity		
Landfill gas management	Collection and utilisation of landfill gas for flaring or for energy recovery in an appliance with a rated thermal input of less than 3MW.	Landfill gas arising from the Permitted Lisbane Landfill.
Surface water discharges to controlled waters	Collection, storage and discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.
Fuel storage	Storage of fuel for operation of plant, equipment and for heating welfare facilities.	Fuel storage tanks.
Chemical storage	Storage of chemicals for operation of plant, equipment, particularly leachate treatment facilities.	Chemical storage units.

Table S1.2 Pre operational Measures

Reference	Pre-operational Measures
N/A	

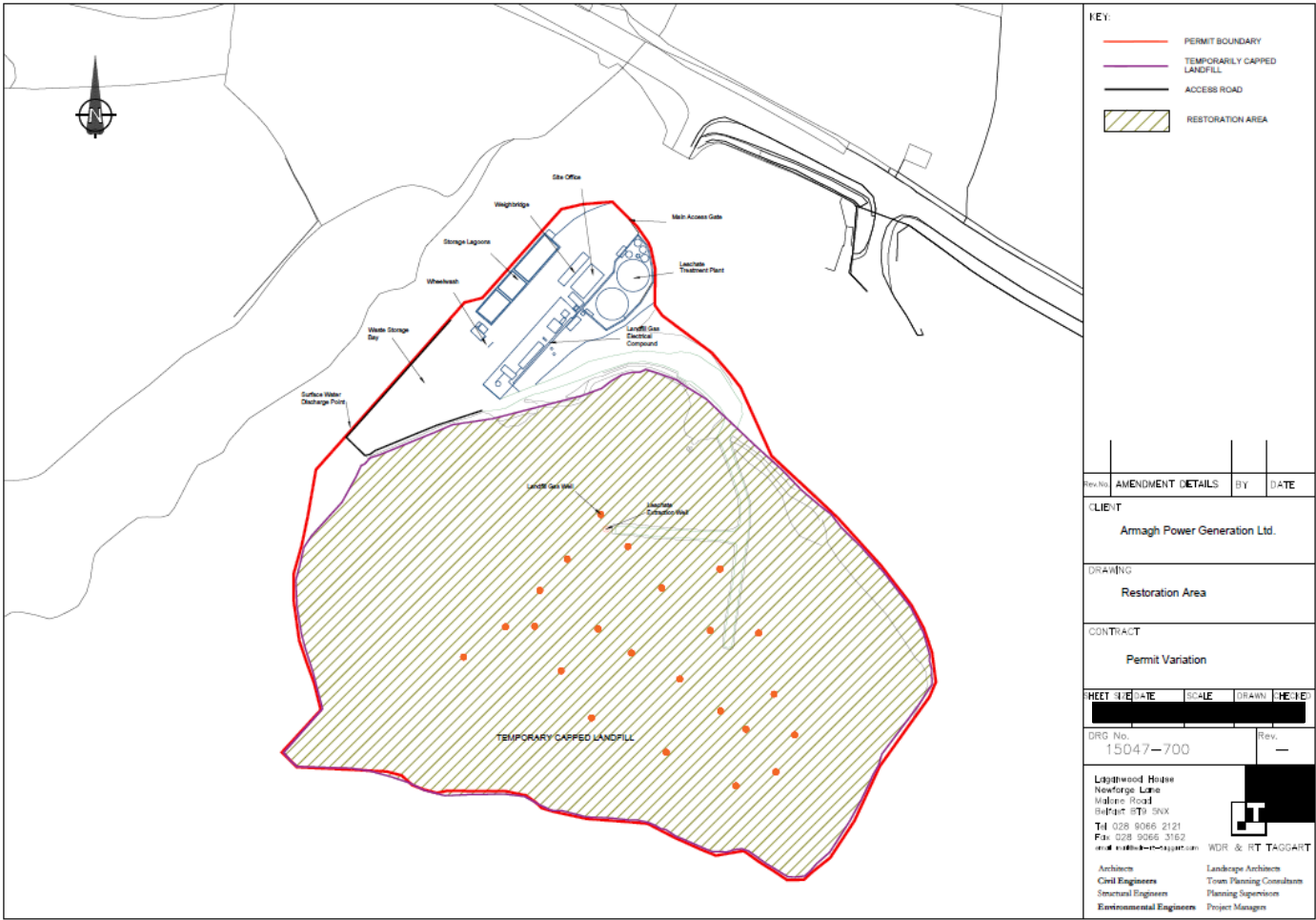
Table S1.3 Improvement Programme Requirements

Reference	Requirement	Date
1	The operator shall submit proposals to ensure leachate extraction is provided for each cell of the landfill which shall include a contingency plan in event of breakdown. The proposals shall demonstrate consideration of the EA guidance document LFTGN02 Monitoring of Landfill Leachate, Groundwater and Surface Water.	Within 3 months of Permit Issue

Table S1.4 Annual Waste Input Limits (excluding wastes placed above any final cap for restoration purposes)

Category	Limit Tonnes/ Year
Inert	200,000

Schedule 2 - Site Plan



Schedule 3 - List of permitted wastes

(Only wastes which meet the waste acceptance criteria for inert landfills shall be accepted)

European Waste Catalogue Code	Description including physical form.
10	Wastes from thermal processes
10 01	Wastes from power stations and other combustion plants (except 19)
10 01 01 (x)	Bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02 (x)	Coal fly ash
10 01 03 (x)	Fly ash from peat and untreated wood
10 01 15 (#)	Bottom ash, slag and boiler dust from incineration other than those mentioned in 10 01 14
10 01 17 (#)	Fly ash from co-incineration other than those mentioned in 10 01 16
10 11	Wastes from manufacture of glass and glass products
10 11 03	Waste glass-based fibrous materials
10 13	Wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 13 (#)	Solid waste from gas treatment other than those mentioned in 10 13 12
15	Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	Packaging (including separately collected municipal packaging waste)
15 01 07	Glass packaging
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 01	Concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	Wood, glass and plastic
17 02 02	Glass
17 05	Soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	Soil and stones other than those mentioned in 17 05 03
17 05 06 (#)	Dredging spoil other than those mentioned in 17 05 05
17 05 08 (#)	Track ballast other than those mentioned in 17 05 07

European Waste Catalogue Code	Description including physical form.
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 01	Wastes from incineration or pyrolysis of waste
19 01 12 (#)	Bottom ash and slag other than those mentioned in 19 01 11
19 01 14 (#)	Fly ash other than those mentioned in 19 01 13
19 02	Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 06 (#)	Sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 03	Stabilized/solidified wastes
19 03 05 (x)	Stabilised wastes other than those mentioned in 19 03 04
19 03 07 (x)	Solidified wastes other than those mentioned in 19 03 06
19 08	Wastes from waste water treatment plants not otherwise specified
19 08 02 (x)	Waste from desanding
19 09	Wastes from the preparation of water intended for human consumption or water for industrial use
19 09 01 (x)	Solid waste from primary filtration and screenings
19 09 02 (x)	Sludges from water clarification
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 05	Glass
19 12 09 (x)	Minerals (for example sand and stones)
19 12 12 (#)	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 02	Glass
20 02	Garden and park wastes (including cemetery waste)
20 02 02	Soil and stones (only from garden and park waste)

(x) **Absolute non-hazardous entries** - inert landfill waste acceptance criteria assessment required. This material may only be accepted with prior approval of the Chief Inspector.

(#) **Mirror non-hazardous entries** - WM3 waste classification and inert landfill waste acceptance criteria assessment required. This material may only be accepted with prior approval of the Chief Inspector.

Schedule 4 – Emissions and monitoring

Table S4.1 Leachate level limits and monitoring requirements

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring method
Leachate Head Monitoring Points: LEP A LEP B	3m above cell base	Monthly	Dip Meter

Table S4.2 Leachate– other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
MBR Inlet MBR Outlet	pH, Temperature, Electrical Conductivity, Ammoniacal Nitrogen, Chloride, BOD, COD, Total Suspended Solids.	Monthly	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'	
MBR Inlet MBR Outlet	TON, TOC, Calcium, Magnesium, Sodium, Potassium, Manganese, Iron, Zinc, Nickel, Chromium, Cadmium, Arsenic, Mercury Sulphate, Lead, Alkalinity, Mecoprop, Naphthalene, Phenols.	Quarterly	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'	
MBR Inlet MBR Outlet	Hazardous Screen	Annually	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'	

Table S4.3 Trigger and Control levels for emissions into groundwater and monitoring requirements

Monitoring point reference	Parameter	Control Limit (including unit)	Trigger Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
BH2, BH4, BH5, BH6, BH6A, BH8, BH9, BH10, BH13	Chloride Ammoniacal Nitrogen	150 mg/l 0.25 mg/l	250 mg/l 1 mg/l	Spot Sample	Monthly	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'
BH2, BH4, BH5, BH6, BH6A, BH8, BH9, BH10, BH13	Nickel Cadmium Mercury Zinc Mecroprop Naphthalene Phenol	19 ug/l 1 µg/l 0.1 µg/l 0.8 mg/l 20 µg/l 10 µg/l 20 µg/l	20 ug/l 1 µg/l 0.1 µg/l 1 mg/l 20 µg/l 10 µg/l 30 µg/l	Spot Sample	Quarterly	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'

Table S4.4 Groundwater – other monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
BH2, BH4, BH5, BH6, BH6A, BH8, BH9, BH10, BH13	pH Water level Temperature COD Electrical Conductivity	Monthly	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'	
BH2, BH4, BH5, BH6, BH6A, BH8, BH9, BH10, BH13	Alkalinity TON TOC BOD Calcium Magnesium Sodium Potassium Manganese Iron Chromium Lead Arsenic Sulphate	Quarterly	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'	
BH2, BH4, BH5, BH6, BH6A, BH8, BH9, BH10, BH13	Hazardous substance screen	Annually	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'	

Table S4.5 Point Source Emissions to Water (Other than Sewer) – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
SW1,SW2,SW3, SW4	Suspended Solids pH BOD Ammoniacal Nitrogen Oil and Grease	50mg/l >6 and <9 5mg/l 1mg/l None Visible	Spot Sample	Monthly	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'

Table S4.6 Surface water – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method
SW1,SW2,SW3, SW4	Chloride Electrical Conductivity Temperature	Monthly	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'
SW1,SW2,SW3, SW4	COD TON TOC Total Alkalinity Copper Calcium Magnesium Sodium Potassium Manganese Iron Nickel Cadmium Chromium Zinc Lead Sulphate Dissolved Oxygen Mecroprop Naphthalene Phenols	Quarterly	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'
SW1,SW2,SW3, SW4	Hazardous substance screen	Annually	In accordance with Environment Agency Document TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'

Table S4.7 Point Source Emissions to Air – emission limits and monitoring requirements						
Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Landfill gas flare emission monitoring points	Oxides of Nitrogen	Landfill Gas Flare	150 mg/m ³	Hourly mean	Annually*	In accordance with the relevant Environment Agency's Technical Guidance Note
	CO	Landfill Gas Flare	50 mg/m ³	Hourly mean	Annually*	
	Total VOCs	Landfill Gas Flare	10 mg/m ³	Hourly mean	Annually*	
Landfill gas engine emission monitoring points	Oxides of Nitrogen	Gas utilisation plant	500 mg/m ³	Hourly mean	Annually	In accordance with the relevant Environment Agency's Technical Guidance Note
	CO	Gas utilisation plant	1400 mg/m ³	Hourly mean	Annually	
	Total VOCs	Gas utilisation plant	1000 mg/m ³	Hourly mean	Annually	

* If the flare has operated as a standby flare to the gas engines for less than 10% of the time of the operation of the gas engines within the 12 months prior to the required monitoring date then the flare need not be monitored.

Table S4.8 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
LISBH002	Methane	1 %v/v	Monthly	In accordance with Environment Agency Guidance Document LFTGN03 'Guidance on the Management of Landfill Gas'.
LISBH004	Carbon Dioxide	1.5 %v/v		
LISBH005	Oxygen	no limit		
LISBH05A	Atmospheric pressure	no limit		
LISBH06A	Differential Pressure	no limit		
LISBH008	Temperature	no limit		
LISBH009	Meteorological data	no limit		
LISBH010				
LISBH013				

Table S4.9 Landfill gas – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All in-waste landfill gas monitoring boreholes	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Differential pressure Temperature Meteorological data	Fortnightly	In accordance with Environment Agency Guidance Document LFTGN03 'Guidance on the Management of Landfill Gas'	Limit of 100ppm for Carbon Monoxide
All landfill gas extraction wells	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Differential pressure Temperature Gas flow rate Meteorological data	Fortnightly	In accordance with Environment Agency Guidance Document LFTGN03 'Guidance on the Management of Landfill Gas'	Limit of 5% for oxygen

Table S4.10 Landfill gas from capped surfaces - limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (Including unit)	Monitoring frequency	Monitoring Standard or method
Permanently capped zone	Average Methane flux	0.001 mg/m ² /second	Annually *	In accordance with Environment Agency Document TGN07 'Guidance on Monitoring Landfill Gas Surface Emissions'
Temporarily capped zone	Average Methane flux	0.1 mg/m ² /second	Annually *	In accordance with Environment Agency Document TGN07 'Guidance on Monitoring Landfill Gas Surface Emissions'

Footnote * If a cap has previously been shown compliant and there have been no significant physical changes in the gas management during the year, a detailed walkover survey can be used to demonstrate that the surface emissions are under control. If this survey shows no change in the pattern of methane emissions, it may be used as the annual survey. If the zone remains stable, the results of a full walkover survey may be accepted as the site report for a period of four years before a further quantitative flux box survey is required.

Table S4.11: Particulate emission limits into air			
Parameters	Frequency	Monitoring point(s)	Emission Limit at site boundary
Suspended Particulate PM10	N/A		
Deposited dust	N/A		
Asbestos Fibres	N/A		

Schedule 5 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this Permit, are listed below.

Table S5.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Leachate levels As required by condition 4.7.1	All leachate monitoring points	Every 3 months	From date of installation of monitoring boreholes
Emissions to air Parameters as required by condition 4.7.1	Landfill gas flare emission monitoring point	Every 12 months	From date of commencement of flaring
	Landfill gas engine emission monitoring point	Every 12 months	From date of commissioning of gas engines
Emissions to water Parameters as required by condition 4.7.1	All surface water monitoring points	Every 3 months	From date of issue of Permit
Groundwater Parameters as required by condition 4.7.1	All groundwater monitoring points	Every 3 months	From date of issue of Permit and date of installation of boreholes
Landfill gas surface emissions Parameters as required by condition 4.7.1	All permanently or temporarily capped areas	Every 12 months	From date of issue of Permit
Landfill gas lateral migration Parameters as required by condition 4.7.1	All perimeter landfill gas monitoring boreholes	Every 3 months	From date of issue of Permit and date of installation of boreholes
Other landfill gas monitoring Parameters as required by condition 4.7.1	All landfill gas in-waste monitoring points.	Every 3 months	From date of installation of boreholes, wells and manifolds.
	All landfill gas extraction wells.	Every 3 months	
	Gas collection system manifolds	Every 12 months	
Other leachate monitoring Parameters as required by condition 4.7.1	MBR Inlet and MBR Outlet	Every 3 months	From date of issue of Permit
	Hazardous Substance Screen	Every 12 months	

Table S5.2: Annual Production/Treatment

Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass	Cubic metres/year
Surface water and/ or groundwater: Disposed of off site; Disposed of to any onsite effluent treatment plant	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year

Table S5.3 Performance Parameters

Parameter	Frequency of assessment	Annual total	Unit
Potable water use	Annually		Cubic metres
Energy used	Annually		MW of electricity
Non potable water use	Annually		Cubic metres

Schedule 6 - Notification

This page outlines the information that the Operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the Pollution Prevention and Control (Industrial Emissions) Regulations.

Part A

Permit Number	
Variation Notice Number	
Name of Operator	
Location of Installation	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution

To be notified immediately following detection	
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Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to limit the environmental consequences and prevent further possible incidents or accidents.	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

(c) Notification requirements for the breach of a permit condition	
To be notified within 24 hours of detection	
Condition reference	
Description of breach and effect on the environment	
Date and time of detection	
Measures taken, or intended to be taken, to restore compliance	

(d) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B to be supplied as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Operator.

Schedule 7 - Interpretation

“*Accident*” means an accident that may result in pollution.

“*Annually*” means once every Year.

“*Application*” means the application for this Permit, together with any additional information supplied by the Operator as part of the application and any response to a notice served under Schedule 4 to the PPC Regulations

“*Authorised Officer*” means any person authorised by the Chief Inspector under Regulation 8 of the Pollution Prevention and Control (Industrial Emissions) Regulations 2013

“*BAT*” means Best Available Techniques, as defined in Regulation 3 of the Regulations.

“*Biannual*” means twice per year with at least five months between tests.

“*Chief Inspector*” means the person so appointed under Regulation 8 of the PPC Regulations.

“*Construction Proposals*” means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the New Cell or Landfill Infrastructure.

“*CQA Validation Report*” means the final “as built” construction and engineering details of the New Cell or of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“*Fugitive emission*” means an emission to air, water or land from the Activities which is not controlled by an emission limit.

“*Groundwater*” means all water which is below the surface of the ground in the saturation zone and in direct contact with the soil and sub-soil.

“*Groundwater Regulations*” means the Groundwater Regulations (Northern Ireland) 2009, and words and expressions used in this Permit which are also used in the Regulations shall have the same meanings as in those Regulations.

“*Gypsum based or other high sulphate material*” means any wastes containing more than 10% sulphate in any one load.

“*Inspector*” means a person appointed under Regulation 8 of the Regulations.

“*Landfill Infrastructure*” means any specified element of the:

- permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;

within the Site.

“*Landfill Regulations*” means the Landfill Regulations (Northern Ireland) 2003 and words and expressions used in this Permit which are also used in the Regulations shall have the same meanings as in those Regulations.

“*Liquids*” means any liquid other than leachate within the engineered landfill containment system.

“*LFTGN 05*” means Environment Agency Guidance for monitoring enclosed landfill gas flares, September 2004.

“*LFTGN 08*” means Environment Agency Guidance for monitoring landfill gas engines, September 2004.

“*New Cell*” means any new cell, part of a cell or other similar new area of the Site where waste deposit is to commence after issue of this Permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

“*No impact*” means that the change made to the construction process will not alter the agreed design criteria, specification or performance.

“*The Regulations*” means The Pollution, Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013 and words and expressions used in this Permit which are also used in the Regulations have the same meanings as in those Regulations.

“*Quarter*” means a calendar year quarter commencing on 1 January.

“*Relevant person*” and “*relevant offence*” shall have the meanings given to them in the Waste and Contaminated Land (Northern Ireland) Order 1997

“*Review of the Hydrogeological Risk Assessment*” means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the Groundwater Regulations. The review shall assess whether the activities of disposal or tipping for the purpose of disposal of waste authorised by the Permit continue to meet the requirements of the Groundwater Regulations

“*Technically competent management*” and “*technical competence*” shall have the meanings given to them in the Waste and Contaminated Land (Northern Ireland) Order 1997.

“*Year*” means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

END OF PERMIT

From: [REDACTED]
To: [REDACTED]
Subject: Lisbane Landfill DW Sludge (Alum Sludge)
Date: 05 June 2025 14:53:27
Attachments: [REDACTED]

[REDACTED]

I hope all is well with you.

As you are aware from previous correspondence raising concerns regarding the condition of the gas extraction infrastructure at Lisbane landfill, we also have concerns.

Further work needs to be carried out on this gas infrastructure, hence NIEA have taken the decision to suspend acceptance of all DW filter cake until such time as the NIEA are content that the gas infrastructure at Lisbane is fit for purpose.

All acceptance of DW filter cake into Lisbane landfill should cease by Thursday 12th June 2025.

I am under the understanding that this DW filter cake is being brought in by NWPe to your permitted site, a curtesy email will be sent to NWP for information.



From: [REDACTED]
To: [REDACTED] [\[REDACTED\]@blueskyresourcerecovery.com](mailto:[REDACTED]@blueskyresourcerecovery.com)
Cc: [REDACTED] (DAERA NIEA); [REDACTED]
Subject: Lisbane landfill
Date: 01 November 2022 14:05:00
Attachments: [REDACTED]

Hi [REDACTED],

We have received the results back from the samples collected on 14th October 2022.

None of the samples collected passed the inert landfill acceptance criteria.

So following on from this, can you confirm that McKinstry's fines have been removed from site, including the tonnages and dates removed.

The site is no longer permitted to accept fines from Starrus or McKinstry.

Kind regards

[REDACTED]

[REDACTED] | Higher Scientific Officer | Northern Ireland Environment Agency
[REDACTED]st B [REDACTED], 111 Ballykelly Road, Limavady, BT49 9HP
[REDACTED]

DAERA Signature Strip New 2020 Green

