

Extract from the Minutes of the 1063rd Licensing Meeting of the Agency was held on 2 November 2021, in EPA Headquarters, Johnstown Castle Estate, County Wexford

The 1063rd Licensing Meeting of the Agency was held on 2 November 2021, in EPA Headquarters, Johnstown Castle Estate, County Wexford.

Directors Present: L Burke (Chair);
G O’Leary (via Video Conference), M Lehane, E Cotter, T Ryan & S Finegan.

3. Recommended Decision of an Application for a Certificate of Authorisation for a Closed Landfill

Certificate of Authorisation holder: **Kildare County Council**

Location: **Digby Bridge
Barrettstown
Sallins
County Kildare**

Cert. of Authorisation No: **H0223-01**

The Directors considered a recommendation from the Office of Environmental Sustainability that the Agency approve the recommended decision to grant a Certificate of Authorisation for a Closed Landfill. The following documentation was submitted: Recommended Decision and Report of the Inspector dated 28 October 2021. The Directors noted a typographical error in the Agenda which should have stated ‘Application for a Certificate of Authorisation for a Closed Landfill’.

A copy of the Draft Certificate of Authorisation was available electronically.

Ewa Babiarczyk, Caitriona Collins and Marie O’Connor gave verbal presentations.

Inspector’s Report

The Directors noted the Inspector’s Report.

Recommended Decision

Table of Contents

Update the Table of contents to reflect the addition of a new Schedule B.

Conditions

3.1 Insert a new Condition 3.1 (combining the text of conditions 3.1(d) and 3.1(e) which are to be deleted) to read as follows and renumber subsequent conditions accordingly:

‘The local authority shall, within ~~12~~ 6 months of the date of grant of this Certificate of Authorisation, carry out a gas pumping trial with a temporary gas flare, for the purpose of determining the quantity and quality of landfill gas. ~~The local authority shall implement a~~ Any recommendations arising from the gas pumping trial *shall be implemented*, as agreed by the Agency.

Reason for Decision:

In the interest of clarifying the requirements of the conditions and expediting the landfill gas assessment.

3.2(b) ~~3.1(b)~~ Delete the comma in the Condition after ‘minimum 1m’ to read as follows: ‘Install a low permeability landfill cap over the entire waste body, minimum 1m with 1mm thick low permeability geomembrane, or equivalent, to achieve a hydraulic conductivity of less than or equal to 1×10^{-9} m/s.’

Reason for Decision:

In the interest of providing clarity.

3.5 ~~3.4~~ Amend the Condition as follows:
‘The local authority shall carry out appropriate monitoring on a biannual basis to identify any impact on the quality of water abstracted at wells downgradient of the landfill. *Monitoring results shall be assessed against drinking water standards.*’

Reason for Decision:

To provide clarity on the assessment criteria for monitoring results.

3.10(b) ~~3.9(b)~~ Consolidate the content of the Condition in a tabular format (Schedule B.1) and replace the text of the Condition to read as follows:
‘Monitoring (sample, analyse and characterise) of leachate as required in Schedule B.1.’

Reason for Decision:

In the interest of providing clarity.

3.10(c) ~~3.9(e)~~ Consolidate the content of bullet points (i), (ii) and (iii) of the Condition in a tabular format (Schedule B.2) and replace the text of the Condition to read as follows:
‘Monitoring of landfill gas as required in Schedule B.2.’

Retain bullet point (iv) of the Condition, renumber as bullet point (i) and amend as follows:

‘Landfill gas monitoring results shall be assessed and reported against the following:

- The trigger levels, for landfill gas measured at the monitoring wells, as set out in the EPA Landfill Manuals - Landfill Monitoring:
- Methane, greater than or equal to 1.0% v/v; and
- Carbon dioxide, greater than or equal to 1.5% v/v.

The emission limit values, for the gas flare, as set out in *Schedule A: Emission Limits.*’

Reason for Decision:

To improve the format of the compliance requirements.

3.10(d) ~~3.9(d)~~ Consolidate the content of the Condition in a tabular format (Schedule B.3) and replace the text of the Condition to read as follows:

'Monitoring (sample, analyse and characterise) of surface water as required in Schedule B.3.'

Reason for Decision:

To improve the format of the compliance requirements.

3.10(e) 3.9(e) Consolidate the content of the Condition in a tabular format (Schedule B.4) and replace the text of the Condition to read as follows:

'Monitoring (sample, analyse and characterise) of groundwater as required in Schedule B.4.'

Reason for Decision:

To improve the format of the compliance requirements.

3.10(g) 3.9(g) Amend the Condition as follows:

'The sensitivity of the monitoring methods utilised for monitoring under Condition 3.9 3.10 and Schedule B shall have an appropriate limit of detection to allow for comparison of pollutant concentrations against the relevant trigger levels as set out in Condition 3.10, emission limit values as set out in Schedule A and/or standard reference values or parametric values as set out in Condition 3.9 and Schedule A. The analysis shall be carried out in an appropriately accredited laboratory.'

Reason for Decision:

To ensure appropriate assessment and analysis methods in the monitoring of emissions.

3.10(h) 3.9(h) Amend the Condition as follows:

'The assessment and reporting of monitoring results for leachate, surface water and groundwater against trigger levels and/or standard reference values or parametric values for relevant pollutants including environmental quality standards in the European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended, European Communities Environmental Objectives (Groundwater) Regulations 2010, as amended, EPA Interim Guideline Values (IGV) and European Union (Drinking Water) Regulations 2014, as amended.'

Reason for Decision:

To reflect available standards for assessment.

3.11 3.10 Amend the Condition as follows:

'The Unless otherwise agreed with the Agency, the local authority shall carry out a monthly review of the gas management system, including operational status, number of wells connected and unconnected to the landfill gas collection system if relevant, quantity of gas collected and flared, estimated quantity of landfill gas being produced and details of any problems with equipment.'

Reason for Decision:

To strengthen the review of the gas management system.

3.12 3.11 Amend the Condition as follows:

'The local authority shall, on a quarterly basis, beginning immediately after the installation of the landfill cap required under Condition 3.1(b)

3.2(b) and the gas management system required under Condition 3.1(e) 3.2(c), for a period of one year and thereafter if required by the Agency, complete indoor and outdoor air monitoring for Methane and Carbon Dioxide in all relevant buildings including domestic dwellings. The *assessment of the monitoring results shall be compared against a relevant air quality standard identify the impact, if any, from the migration of gas.*

Reason for Decision:

To clarify the purpose of the monitoring required.

SCHEDULE A: Emission Limits

Emission Limit Values for Landfill Gas Flare

Amend the ‘Maximum volume to be emitted (m3/hr)’ as follows: ‘To be agreed with the Agency following the pumping trial as required under Condition 3.1(d).’

SCHEDULE B:

Insert a new Schedule B to read as follows and rename ‘Reasons for the Decision’ as Schedule C’.

Schedule B: Monitoring

B.1 Leachate Monitoring

Monitoring locations: MW-09, MW-12, MW-14, MW-15 and MW-16

Parameter	Monitoring frequency
Leachate levels	Quarterly
Biochemical Oxygen Demand (BOD) (mg O ₂ /l)	
Total Ammonia (mg N/l)	
Ammonium (µg/l N)	
Molybdate Reactive Phosphorus (MRP) (µg P/l)	
Electrical Conductivity (µS/cm)	
Arsenic (µg/l)	
Calcium (mg/l)	
Manganese (µg/l)	
Nickel (µg/l)	
Potassium (mg/l)	
Sodium (mg/l)	
Cyanide (µg/l)	
Tributyltin (µg/l)	
Polycyclic Aromatic Hydrocarbons (µg/l)	
relevant Heavy Metals	

B.2 Landfill Gas Monitoring

B.2.1 Monitoring at wells

Monitoring locations: *Inside the waste body:-*
Existing: MW-09, MW-10, MW-11, MW-12, MW-13, MW-15 and MW-16

New: MW-17, MW-18 and MW-19

Outside the waste body:-

Existing: MW-01, MW-02, MW-03, MW-04, MW-05, MW-06, MW-07A and MW-08A

Additional wells as may be required, between the waste body and relevant buildings including domestic dwellings

Parameter	Monitoring frequency ^{Note 1}
Presence and concentration of landfill gas	Quarterly
Gas flow	

Note 1: Landfill gas monitoring shall be carried out in accordance with the EPA Landfill Manuals - Landfill Monitoring and the EPA Guidance Note on Landfill Flare and Engine Management and Monitoring (AG7), including any subsequent amendments.

B.2.2 Monitoring of Landfill Gas Flare

Monitoring location: Landfill gas flare

Parameter	Monitoring frequency Note 1
Inlet	
Methane (CH ₄ %v/v)	Continuous
Carbon dioxide (CO ₂ %v/v)	Continuous
Oxygen (O ₂ %v/v)	Continuous
Process parameters	
Combustion temperature	Continuous
Outlet	
Flow rate	Continuous
Carbon monoxide (CO)	Continuous
Nitrogen Oxides (mg NO _x)	Annually
Sulphur dioxide (SO ₂)	Annually
Total organic carbon (TOC mg/m ³)	Annually
Hydrochloric acid (HCl)	Annually
Hydrogen fluoride (HF)	Annually

Note 1: Landfill gas monitoring shall be carried out in accordance with the EPA Landfill Manuals - Landfill Monitoring and the EPA Guidance Note on Landfill Flare and Engine Management and Monitoring (AG7), including any subsequent amendments.

B.3 Surface Water Monitoring

Monitoring locations: Grand Canal SW-02 (upstream) and SW-01 (downstream); and Drainage ditch SW-03

Parameter	Monitoring frequency
Biochemical Oxygen Demand (BOD) (mg O ₂ /l)	Quarterly
Total Ammonia (mg N/l),	
Molybdate Reactive Phosphorus (MRP) (mg P/l)	
Chromium (µg/l)	

Cyanide (µg/l)	
Lead (µg/l)	
Mercury (µg/l)	
Cadmium (µg/l)	
Tributyltin (µg/l)	
Polycyclic Aromatic Hydrocarbons (µg/l)	
Other relevant parameters listed in European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended	

B.4 Groundwater Monitoring

Monitoring locations:

Upgradient wells: MW-01, MW-02, MW-03; and

Downgradient wells: MW-04, MW-05, MW-06, MW-07 and MW-08

Parameter	Monitoring frequency
Groundwater levels	Quarterly
Electrical Conductivity (µS/cm)	
Ammonium (µg N/l)	
Chloride (mg/l)	
Cyanide (µg/l)	
Molybdate Reactive Phosphorus (µg P/l)	
Polycyclic Aromatic Hydrocarbons (µg/l)	
Faecal Coliforms (cfu/100ml)	
Total Coliforms (cfu/100ml)	
Other relevant parameters listed in European Communities Environmental Objectives (Groundwater) Regulations 2010, as amended, and EPA Interim Guideline Values (IGV)	

Following discussion, the Directors approved the recommendation to grant a Certificate of Authorisation, as modified, to Kildare County Council for the closed landfill at Digby Bridge, Barrettstown, Sallins, County Kildare, Register No H0223-01, subject to the conditions as set out in the authorisation.