

Site Visit Report

The site visit process is a sample on a particular day of an installation's compliance with some of its licence conditions. Where non-compliance against a particular condition has not been reported, this should not be construed to mean that there is full compliance with that condition of the licence.

Instructions and actions arising from the visit shall be addressed, or where applicable noted, by the licensee in order to ensure compliance, to improve the environmental performance of the installation and to provide clarification on certain issues.

The licensee shall take the actions specified to close out the non-compliances and observations raised in this Site Visit Report.

The licensee may also be requested to provide a response to the Environmental Protection Agency (hereafter referred to as the Agency) in relation to the site visit report findings.

Licensee	
Name of Installation	Inagh
Licensee	Clare County Council
Licence Register No.	W0109-02
CRO Number	
Site Address	Ballyduff Beg, Inagh, Clare
Site Visit Reference No.	SV27177

Report Detail	
Issue Date	05/12/2023
Prepared By	Aisling Carroll

Site Visit Detail			
Date Of Inspection	17/10/2023		
Time In	14:34	Time Out	16:30
EPA Inspector(s)	Aisling Carroll		
Additional Visitors			
Licensee Personnel and Role	Maire Rutledge - Assistant Scientist Brendan Flynn - Senior Executive Engineer Pat Baker - Facility Manager Eamon Reynolds - Site Supervisor		

> Summary

The Agency carried out this site visit as part of the OEE annual site visit programme to evaluate the Licensee's compliance with the requirements of the licence. The Licensee was found to be compliant with licence conditions at the time of the Agency site visit.

Five observations were raised relating to:

- Landfill gas collection infrastructure;
- Integrity testing of all bunds, tanks and containers;
- WEEE collection and storage areas;
- Telemetry system procedures; and
- Elevated concentrations of Total Coliform and E.coli in groundwater samples collected from monitoring locations.

The issues raised require action to be taken by the Licensee as specified in this report.

The licensee is reminded that failure to comply with any condition attached to a licence or revised licence is an offence.

> Site Areas Inspected

The following areas were inspected as part of the site visit:

- Surface water monitoring locations;
- Hardstanding;
- Civic amenity site including storage of paints, oil, WEEE, waste wood;
- Leachate storage infrastructure;
- Composting pad;
- Flare; and
- Integrated constructed wetland system.

> Documents Inspected

The following documents were inspected post site visit:

- Landfill gas monitoring reports; and
- Quarterly groundwater monitoring reports 2019 - 2022.

> 1. Health and Safety

	Answer	Condition Number	Non Compliance	Observation
1.1	Were any health and safety issues noted during the site inspection?	No		
	Answer	Condition Number	Non Compliance	Observation
1.2	Was safe and permanent access to sampling/monitoring points provided?	Yes	9.9	



2. Landfill Sector

	Answer	Condition Number	Non Compliance	Observation
2.1	Is there a suitably qualified facility manager, or a suitably qualified and experienced deputy present on site at all times during the operation of the facility, or as otherwise agreed by the Agency?	Yes	2.4	

	Answer	Condition Number	Non Compliance	Observation
2.2	Is leachate storage capacity available onsite to ensure compliance with the 1m leachate level within lined cells and to maintain freeboard in the leachate lagoon / storage tank?	Yes	4.17.3	

	Answer	Condition Number	Non Compliance	Observation
2.3	During this inspection, were practices in relation to landfill gas management (collection, treatment methods and use) satisfactory?	Checked	4.17.3	Yes

Comment / Action Required

The landfill gas flare is operational for six hours per day. Following the site visit, the Agency assessed landfill gas monitoring reports submitted via EDEN by the Licensee. These reports indicate:

- Certain landfill gas wells are generating considerably less CH₄ than neighbouring landfill gas wells in the same cell;
- CH₄ concentrations in certain landfill gas wells vary widely from month to month; and
- Six landfill gas wells frequently demonstrate O₂ ingress which poses a risk of fire or self-ignition in the presence of CH₄.

These circumstances indicate the landfill gas collection infrastructure is malfunctioning.

Licence Condition 4.18.3 requires all gas wells, pipework, valves, pumps, flares and other infrastructure, that form part of the landfill gas management infrastructure, be maintained in a safe and fully operational manner.

Action Required:

1. Investigate the landfill gas collection pipework and manifolds for breaks, kinks and blockages by tracing landfill gas volumes in the pipework from landfill gas wells back to the flare and identifying any issues; and
2. Submit to the Agency a plan, including timeframes, to restore compliance with Licence Condition 4.18.3. This shall include recommended actions for issues found during the investigations such as, removing the landfill capping to expose the landfill gas pipework, and installing additional knockout pots or gravity drains to remove condensate build-up.

Please respond to the above matters via Licensee Return in EDEN as soon as possible and no later than 25/03/2024.

	Answer	Condition Number	Non Compliance	Observation
2.4	Is there lateral migration of landfill gas to perimeter monitoring wells?	No		

	Answer	Condition Number	Non Compliance	Observation
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2.5

During this inspection, were practices in relation to leachate management (collection, treatment and impact) considered satisfactory?	Yes	4.17		
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3. Civic Amenity Site

	Answer	Condition Number	Non Compliance	Observation
3.1	Is the activity authorised under the waste licence?	Yes	1.1	
	Answer	Condition Number	Non Compliance	Observation
3.2	Are the waste types accepted at the site compliant with the licence ?	Yes	1.5	
	Answer	Condition Number	Non Compliance	Observation
3.3	Are the tonnages accepted at the site compliant with the licence ?	Yes	1.5	



4. Compliance & Reporting

	Answer	Condition Number	Non Compliance	Observation
4.1	Did the licensee submit an EPR return for calendar year 2021 and calendar year 2022 (the latter being due by 31st March 2023)?	Yes		
4.2	Does the EMS include actions/initiatives completed which demonstrate that the licensee has gone beyond regulatory compliance?	Yes		
Comment / Action Required				
An integrated constructed wetland has been established to treat contaminated surface water run-off from capped areas of the landfill. The treated run-off is collected in a storm water settling pond before being discharged to a stream connected to the River Inagh. The wetland is well established and supports local wildlife.				
4.3	Has the licensee installed any additional temporary/ emergency power generation units over the past 12 months?	No		
4.4	Has the licensee changed fuel types over the past 12 months (other than as provided for in the licence)?	No		



5. Site Specific Issues

	Answer	Condition Number	Non Compliance	Observation
5.1	Has the integrity and water tightness of all bunds, tanks and containers, and their resistance to penetration by water or other materials stored therein been tested?	Not Checked	4.15.6	Yes
Comment / Action Required				
<p>Licence Condition 4.15.6 requires the integrity and water tightness of all bunds, tanks and containers, and their resistance to penetration by water or other materials stored therein, to be tested at least once every three years.</p> <p>Records of this testing were not available during the site visit for inspection.</p> <p>Action Required:</p> <p>Submit to the Agency an itemised list of all bunds in operation at the facility, the date each bund was previously tested and the date the next test must be completed by.</p> <p>Please respond to the above matters via Licensee Return in EDEN as soon as possible and no later than 29/01/2024.</p>				

	Answer	Condition Number	Non Compliance	Observation
5.2	Are appropriate receptacles for the collection of recoverable and recyclable materials being provided and maintained?	Checked	4.22.2	Yes
Comment / Action Required				
<p>The Civic Amenity Site at the facility collects and temporarily stores Waste Electrical and Electronic Equipment (WEEE) from residential customers (Photographs 1 & 2 refer). Certain WEEE, and fractions thereof, can cause emissions that are hazardous to the environment.</p> <p>Fluorescent tubes, which are classed as hazardous, were not being stored under a weather-proof covering at the facility.</p> <p>Licence Condition 4.22.2 requires the Licensee to provide and maintain appropriate receptacles at the facility for the collection of recoverable and recyclable material.</p> <p>Action Required:</p> <p>Provide and maintain appropriate receptacles for collection and storage of hazardous WEEE at the facility to ensure compliance with Licence Condition 4.22.2 and the Agency's <i>Guidance for the Management of Household Hazardous Waste at Civic Amenity Sites</i>.</p>				

	Answer	Condition Number	Non Compliance	Observation
5.3	Is the telemetry system being maintained at the facility?	Yes	9.8.1	Yes
Comment / Action Required				

Licence Condition 9.8.1 requires a telemetry system to be installed and maintained at the facility. Evidence of the operation of this system was not available for demonstration during the site visit.

Action Required:

Provide to the Agency a report concerning the telemetry system currently in use at the facility which:

1. Lists and describes all the alarms/notifications in operation;
2. Describes when and how each alarm/notification is generated;
3. Lists the person(s) who receive(s) each alarm/notification generated; and
4. Includes the procedure for responding to alarms/notifications received.

Please respond to the above matters via Licensee Return in EDEN as soon as possible and no later than 29/01/2024.

5.4

	Answer	Condition Number	Non Compliance	Observation
Elevated concentrations of Total Coliforms and E.coli in groundwater samples collected from monitoring locations.	Checked	7.1 & 7.7		Yes

Comment / Action Required

Following the site visit, quarterly groundwater monitoring reports from 2019 to 2022 were reviewed. An increase in the presence and concentration of *E.coli* in a number of bedrock and overburden groundwater monitoring locations, both off-site and on-site, during this time period were noted. Elevated concentrations of Total Coliforms were also noted to be persistent in certain groundwater monitoring locations. The groundwater monitoring locations in question include, but are not limited to,; BH2, BH3, BH4, BH6aS, BH12S, BH13, and all wells sampled on private land.

Action Required:

- Conduct an investigation to determine the source, and the cause of the increase in concentrations, of Total Coliforms and E.coli in groundwater monitoring locations;
- Ensure all private wells within (a) 100m upgradient, and (b) 500m downgradient, of the facility are included in the monitoring programme set out in Schedule E of Licence No.: W0109-02; and
- As recommended by JRE Environmental Consulting's Report entitled *Extended Groundwater Risk Screening and Technical Assessment Report 2016 for Central Waste Management Facility* dated December 2016, consider the inclusion of the existing groundwater well (located at No.1 Settlement Lagoon at the northwest corner of the site) in the groundwater monitoring program as a cross-gradient groundwater monitoring location.

Please respond to the above matters via Licensee Return in EDEN as soon as possible and no later than 25/03/2024.



Photographs



Photograph 1: WEEE collection area for household batteries.



Photograph 2: WEEE collection area for household appliances.

FOLLOW-UP ACTIONS

The licensee is required to complete the actions outlined in this site visit report within the specified timeframes. Where required, the licensee shall also respond to actions specified in Compliance Investigations and/or submit a response to this site visit report via the EDEN system. The licensee shall maintain a documentary evidence, for review by the Agency, that the prescribed actions were completed within the required timeframe.

(i) Compliance Investigations

The Agency may generate a Compliance Investigation through the EDEN system and issue instructions and actions to the licensee. The licensee will receive notification when an instruction or action is issued and the licensee must respond to the actions within the Compliance Investigation within the specified timeframe.

(ii) Response to Site Visit Report

Where the licensee is requested to (or wishes to) respond to the Agency in relation to this site visit report, the licensee may select the 'Make a Response' link on the Site Visits page in EDEN where a .pdf document containing the response can be attached and submitted. The response should include details of the actions taken by the licensee to address the issues raised in this site visit report and the target completion dates. This Licensee Public Response provides the licensee with an opportunity to inform both the Agency and the public about the implementing of actions set out in the Agency site visit report. The response must be submitted **within 21 calendar days** of the issue date of this site visit report.

(iii) Publication of Reports

This site visit report will be published on the EPA's website, www.epa.ie, 30 calendar days after the site visit report issue date.

Any licensee response to this site visit report will be published on the EPA's website simultaneously (i.e. 30 calendar days after the site visit report issue date).

Please note that licensees are required to comply with the conditions of the licence at all times, and where non-compliance occurs, compliance must be restored within the shortest possible time. These actions will be verified during subsequent Agency visits. Please quote the above Inspection Reference Number in any correspondence in relation this Report.