

 <p><b>epa</b> Environmental Protection Agency <i>An Ghníomhaireacht um Chaomhnú Comhshaoil</i></p>	<b>OFFICE OF ENVIRONMENTAL SUSTAINABILITY</b>
<b>ENVIRONMENTAL LICENSING PROGRAMME</b>	
<b>TO:</b>	Dr. Eimear Cotter, Director
<b>FROM:</b>	Michael Martin, Inspector, Environmental Licensing Programme
<b>DATE:</b>	22 June 2020
<b>RE:</b>	Technical Amendment to Industrial Emissions Licence Register Number: W0078-03, held by Tipperary County Council, Civic Offices, Limerick Road, Nenagh, County Tipperary for an installation at Ballaghveny Landfill, Ballymackey, County Tipperary.

The Agency received a request on 11<sup>th</sup> October 2019 from Tipperary County Council, Licence Reg. No. W0078-03 to technically amend their Licence. The request relates to leachate management as per Condition 6.2.2 of Licence W0078-03. Condition 6.2.2 states "Leachate levels in the waste shall not exceed a level of 1.0m over the top of the liner at the base of the landfill".

This memo recommends that the change may be accommodated by a Technical Amendment, in accordance with Section 96(1)(b) of Environmental Protection Agency Act 1992 as amended.

## 1. Background

Tipperary County Council was granted a licence; Reg. No. W0078-01, on 04<sup>th</sup> May 2001 for an installation located at Ballaghveny Landfill, Ballymackey, County Tipperary. The installation is licenced under Classes 11.5 and 11.1 of the First Schedule to the EPA Act 1992 as amended.

A revised licence, Licence Reg. No. W0078-02 was issued to Tipperary County Council on 15<sup>th</sup> June 2006. This licence was further revised and Licence No. W0078-03 was issued on 21<sup>st</sup> December 2009.

The licence granted to Tipperary County Council (Reg. No. W0078-03) was amended for the purposes of Section 82A(11) of the EPA Act 1992 as amended, on 19<sup>th</sup> December 2013. This amendment gives effect to the requirements of Directive 2010/75/EU (Industrial Emissions Directive).

The licence was amended on 28<sup>th</sup> June 2010, (Technical Amendment A) which related to limits on acceptance of municipal waste at the installation, reporting and waste monitoring. A second amendment on 15<sup>th</sup> January 2013 (Technical Amendment B) was to bring the licence into conformity with the the provisions and requirements of the European Communities Environmental Objectives (Surface Waters) and Environmental Objectives (Groundwater) Regulations. A third amendment on 19<sup>th</sup> June 2018, (Technical Amendment C) was to allow a change to the licence boundary.

Waste acceptance at the landfill ceased in February 2011, however, the Office of Environmental Enforcement approved the recommencement of waste acceptance at Ballaghveny Landfill on 2<sup>nd</sup> April 2019.

On the 7<sup>th</sup> January 2019, the Agency received a request for a Technical Amendment of IE Licence Reg. No. W0078-03, to change the wording in Condition 6.2.2 in order to allow leachate levels in cells 8 & 9 to be managed to a minimum of 0.2m below the groundwater level at nominated reference groundwater wells. On the 29<sup>th</sup> August 2019 the Agency refused the request as the proposed alteration would regularise an on-going breach of a licence condition.

## **2. Technical Amendment request**

On the 11<sup>th</sup> October 2019, the Agency received a request for a Technical Amendment of IE Licence Reg. No. W0078-03. The licensee requests that the wording of Condition 6.2.2 be changed to allow for **the management of the leachate in a manner that prevents contamination of the surrounding groundwater with leachate subject to the agreement of the Agency.**

Condition 6.2.2 states "Leachate levels in the waste shall not exceed a level of 1.0m over the top of the liner at the base of the landfill".

The licensee proposes the following wording for Condition 6.2.2 "Leachate levels in the waste shall not exceed a level of 1.0m over the top of the liner at the base of the landfill **unless otherwise agreed by the Agency**".

## **3. Consultation with the Office of Environmental Enforcement (OEE)**

I have consulted with the Office of Environmental Enforcement (OEE) Inspector, Anthea Southey, in relation to this technical amendment request.

The OEE has agreed a leachate-groundwater management strategy with Tipperary County Council, to reduce groundwater contamination. A trial of the strategy commenced in January 2018. As part of the strategy, leachate levels are permitted to rise in tandem with groundwater level rise. The leachate-groundwater management strategy has been approved by OEE as the best option for managing groundwater contamination at the landfill. The OEE confirmed that elements of the trial management program relating to leachate levels cannot be accommodated under the existing licence and the licensee has applied for a technical amendment to regularize the situation with the EPA's Environmental Licensing Programme (ELP).

On the 27<sup>th</sup> May 2020 OEE confirmed they are not issuing non-compliances for Condition 6.2.2 and there are no legal proceedings in train in respect of this licence.

## **4. Assessment**

Condition 6.2.2 states "Leachate levels in the waste shall not exceed a level of 1.0m over the top of the liner at the base of the landfill".

There is no trigger level for the height of leachate in unlined cells. The licensee has determined that the liner of cells 8 & 9 at Ballaghveny Landfill has been compromised and these cells are now behaving as unlined cells.

In relation to the requirement for landfill lining, Condition 3.17 of the licence stipulates that:  
***Unless otherwise agreed in writing, the landfill lining system shall comprise:-***

- (i) A composite liner consisting of a 1m layer of clay with a hydraulic conductivity of less than or equal to  $1 \times 10^{-9} \text{ m}^3/\text{m}^2/\text{s}$ , overlain by a 2mm thick high density polyethylene (HDPE) layer;*
- (ii) A geotextile protection layer placed over the HDPE layer;*
- (iii) A 500mm thick drainage layer placed over the geotextile layer with a minimum hydraulic conductivity of  $1 \times 10^{-9} \text{ m}^3/\text{m}^2/\text{s}$ , of pre-washed, uncrushed, granular, rounded stone (16-32mm grain size) incorporating leachate collection drains;*
- (iv) For any new cells the lining system on the base of the facility shall be laid to a minimum slope of 1:50, and*
- (v) The side walls shall be designed and constructed to achieve an equivalent protection.*

The trial leachate - groundwater management program to address the issue of the compromised cells has been in place for phases 3 & 4 of the landfill since 2018 **with the written agreement of the OEE**. OEE have confirmed that cells 8 & 9 lie within phases 3 & 4.

The proposed change of wording in Condition 6.2.2 will allow for the continued implementation of elements in the management programme which require leachate levels to rise in tandem with groundwater levels, subject to the agreement of the Agency.

Section 96(1)(b) of Environmental Protection Agency Act 1992 as amended provides for the Agency to amend a licence or revised licence for the purposes of – “facilitating the doing of any thing pursuant to the condition attached to the licence where the doing of that thing may reasonably be regarded as having been contemplated by the terms of the condition or the terms of the licence taken as a whole but which was not expressly provided for in the condition”.

It is considered that the change request for Condition 6.2.2 may reasonably be regarded as having been contemplated by the terms of the licence taken as a whole but which was not expressly provided for in the condition and may be accommodated by a Technical Amendment, in accordance with Section 96(1)(b) of Environmental Protection Agency Act 1992 as amended.

## **5. Appropriate Assessment**

Table 1 lists the European Sites assessed, their associated qualifying interests and conservation objectives.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at Kilduff, Devilsbit Mountain SAC (Site code: 000934), Lough Derg, North East Shore SAC (Site code: 002241), Slievefelim to Silvermines SPA (Site code: 004165), Scohaboy (Sopwell) Bog SAC (Site code: 002206) and Sharavogue Bog SAC (Site code: 000585).

The activities are not directly connected with or necessary to the management of any

European Site and the Agency considered, for the reasons set out below, that it can be excluded, on the basis of objective information, that the activities, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activities was not required for the following reasons:

- There are no proposed discharges to surface water,
- There are no rivers, streams or drains within the site which would be impacted by the proposed strategy,
- There are not likely to be significant impacts which will affect the preservation of the European Sites at favourable conservation status.

## **6. Recommendation**

This memo recommends that the requested changes be accommodated by a Technical Amendment of Licence W0078-03 (held by Tipperary County Council), in accordance with Section 96(1)(b) of the EPA Act 1992 as amended.

I recommend that the licence amendment be approved as set out in the attached recommended Technical Amendment. The making of the amendment will not result in the relevant requirements of Section 83(5) of the EPA Act 1992 as amended, ceasing to be satisfied.

Signed,

A handwritten signature in black ink, appearing to be 'N. O'Connell', is written over a horizontal line.

Inspector  
Environmental Licensing Programme

**Table 1.**  
**List of European Sites assessed, their associated qualifying interests and conservation objectives.**

	<b>European Site (site code)</b>	<b>Distance/ Direction from installation.</b>	<b>Qualifying interests</b>  (* denotes a priority habitat)	<b>Conservation objectives</b>
1	Scohaboy (Sopwell) Bog SAC (002206)	10 km north of the installation	<b>Habitats:</b> 7120 Degraded raised bogs still capable of natural regeneration.	NPWS (2020) Conservation objectives for Scohaboy (Sopwell) Bog SAC [002206]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.
2	Kilduff, Devilsbit Mountain SAC (000934)	11 km southeast of the installation.	<b>Habitats:</b> 4030 European dry heaths, 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe).	NPWS (2018) Conservation Objectives: Kilduff, Devilsbit Mountain SAC 000934. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
3	Sharavogue Bog Bog SAC (000585)	13 km northeast of the installation	<b>Habitats:</b> 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration, 7150 Depressions on peat substrates of the Rhynchosporion.	NPWS (2015) Conservation Objectives: Sharavogue Bog SAC 000585. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
4	Lough Derg, North-east Shore SAC (002241)	15 km northwest of the installation.	<b>Habitats:</b> 5130 Juniperus communis formations on heaths or calcareous grasslands, 7210 Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae* 7230 Alkaline fens,	NPWS (2019) Conservation Objectives: Lough Derg, North-east Shore SAC 002241. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

			8240 Limestone pavements* 91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)* 91J0 <i>Taxus baccata</i> woods of the British Isles*	
5	Slievefelim to Silvermines SAC (004165)	13.5 km southwest of the installation.	<b>Birds</b> A082 Hen Harrier ( <i>Circus cyaneus</i> ).	NPWS (2020) Conservation objectives for Slievefelim to Silvermines Mountains SPA [004165]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.