

 <p><b>epa</b> Environmental Protection Agency An Ghníomhaireacht um Chaomhnú Comhshaoil</p>	<b>OFFICE OF ENVIRONMENTAL SUSTAINABILITY</b>
<b>ENVIRONMENTAL LICENSING PROGRAMME</b>	
<b>TO:</b>	Dr Eimear Cotter, Director
<b>FROM:</b>	Caitríona Collins, Senior Inspector, Environmental Licensing Programme
<b>DATE:</b>	7 May 2020
<b>RE:</b>	Technical Amendment to Waste Licence Register Number: W0254-01, held by Walshestown Restoration Ltd., Block A, Cashel Business Centre, Cashel Road, County Dublin

The Agency received a request on 6 March 2019 from Walshestown Restoration Ltd., Licence Reg. No. W0254-01 to technically amend their Licence.

This memo recommends that the change may be accommodated by a Technical Amendment, in accordance with Section 42B(1)(c) of Waste Management Act 1996 as amended.

## 1. Background

Cemex (ROI) Limited was granted a licence; Reg. No. W0254-01, on 23 October 2013 for an installation located at Walshestown, Blackhall, Tipperkevin & Bawnoge, Naas, County Kildare. The licence was transferred to Walshestown Restoration Ltd. on 8 December 2015. The installation is licenced under the 3<sup>rd</sup> and 4<sup>th</sup> Scheduled of the Waste Management Act as an inert landfill and construction and demolition waste recovery facility.

## 2. Technical Amendment request

The Agency received a request on 6 March 2019 from Walshestown Restoration Ltd., Licence Reg. No. W0254-01 to technically amend their Licence.

The licensee requested the inclusion of a table of acceptable pollutant limits for inert waste in accordance with the provisions of paragraph 2 of the annex to Council Decision 2003/33/EC, establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC (Landfill Directive), which states that in certain circumstances, up to three times higher limit values for specific parameters are acceptable. The request is specifically stated in relation to two waste types, names soil and stone (List of Waste Code 17 05 04) and dredging material (List of Waste Code 17 05 06). The licensee has requested the increases to be applied for the following parameters: metals (arsenic, barium, cadmium, total chromium, copper, lead, mercury, molybdenum, nickel, tin, selenium and zinc), chloride, fluoride, sulphate and total dissolved solids (TDS). The licensee also requested a two times increase for total organic carbon (TOC).

The licensee submitted a hydrogeological risk assessment (HRA) which comprised LandSim modelling in order to quantitatively assess the risk to groundwater arising from potential leakage of leachate through the basal liner of the proposed engineered inert landfill at the Site. The HRA was submitted to the Office of Environmental Assessment on 14th June 2018

to accompany a request for an increase in the waste acceptance criteria for all parameters to three times the limit specified in EC Council Decision (2003/33/EC). However, the request was refused on the basis that "...an increase of the limits is to be considered on a source case-by-case basis, not on a recipient site case-by-case basis".

The HRA was subsequently submitted in support of the current technical amendment request. While the HRA demonstrated that in the event that all the waste imported to the site leachate concentrations of three times the WAC for metals (arsenic, barium, cadmium, total chromium, copper, lead, mercury, molybdenum, nickel, tin, selenium and zinc), chloride, fluoride and sulphate, the risk to groundwater would still remain acceptable. LandSim modelling is not possible for TOC and TDS. However, it was asserted that since chloride and sulphate are major contributors to TDS, that it was reasonable to assume a three times increase in TDS would also not result in an unacceptable risk to groundwater. In relation to TOC, the licensee is proposing that the limit be increased to two times the WAC, as long as the site specific WAC for dissolved organic carbon (DOC) remains at 500mg/kg L/S = 10 l/kg).

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

I have consulted with the OEE Inspectors Brian Meaney and Ciaran Cuddihy, in relation to this technical amendment request. The OEE confirmed that the proposed request cannot be accommodated under the existing licence. OEE has confirmed that there are no legal proceedings in train in respect of this licence.

### **4. Assessment**

The licensee's proposal was accompanied by a Hydrogeological Risk Assessment (HRA), which included a conceptual site model (CSM), followed by a detailed quantitative risk assessment (DQRA). The CSM found that the risk to surface water was considered unlikely to be significant due to the large distance to the nearest surface water receptor, the river Liffey 8km north west of the site.

Using the LandSim modelling approach, the DQRA concluded that the landfilling of waste with up to three times the inert WAC limits for the specific substances considered would not pose an unacceptable risk to groundwater (or surface water) receptors.

The Agency sought an independent review by Geosyntec Consultants of the HRA that was submitted as part of the licence amendment request and it was considered that the input parameters were appropriate. However, it was considered that the compliance values selected for the DQRA, were not appropriate for non-hazardous constituents in groundwater; the review concluded that the values selected should have been based on Groundwater Threshold Values (GTVs) rather than Drinking Water Standards (DWSs) as the target receptor is a groundwater aquifer. The LandSim modelling found that for all model runs, the 95<sup>th</sup> percentile (generally accepted as being sufficiently conservative) and also the 99<sup>th</sup> percentile maximum concentrations of each constituent at the compliance point were below the respective compliance value (this outcome is still the case if compliance values for non-hazardous constituents are based on GTVs rather than DWSs). The conclusion of the licensee's DQRA, that the landfilling of waste with up to three times the inert WAC limits for the constituents considered in the DQRA would not pose an unacceptable risk to groundwater quality down-gradient of the facility, was found by Geosyntec Consultants to be valid. However, they further highlighted that while an increase in the WAC for those parameters can be justified from an environmental risk perspective, it is not clear that it is the intention of Council Decision 2003/33/EC that such an increase be applied generally,

which makes this provision for case-by-case situations only at the recipient site. However, given that there is no likely unacceptable risk to the environment, it is not considered practical for the licensee to seek approval from the Agency each time waste is to be accepted in accordance with the higher WAC limits. Therefore, it is proposed to allow the increased limits for the relevant parameters, relating to the List of Waste codes 17 05 04 and 17 05 06.

## 5. Appropriate Assessment

The table below lists the European Sites assessed, their associated qualifying interests and conservation objectives.

European Site (site code)	Direction/ Distance from facility	Qualifying interests (* denotes a priority habitat)	Conservation objectives
Red Bog, Kildare SAC [Site Code: 000397]	4.6km northeast of the facility	<b>Habitats:</b> Transition mires and quaking bogs	As per NPWS (2019) Conservation objectives for Red Bog, Kildare SAC [000397]. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht (dated 17/07/2019).
Poulaphouca Reservoir SPA [Site Code: 004063]	4.3 km southeast of the facility	<b>Species:</b> Greylag Goose ( <i>Anser anser</i> ) Lesser Black-backed Gull ( <i>Larus fuscus</i> )	As per NPWS (2018) Conservation objectives for Poulaphouca Reservoir SPA [004063]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht (dated 21/02/2018).
Wicklow Mountains SAC [Site Code: 002122]	8km southeast of the facility	<b>Habitats:</b> Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) Natural dystrophic lakes and ponds Northern Atlantic wet heaths with <i>Erica tetralix</i> European dry heaths Alpine and Boreal heaths Calaminarian grasslands of the <i>Violetalia calaminariae</i> Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) Blanket bogs (* if active bog) Siliceous scree of the montane to snow levels ( <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> ) Calcareous rocky slopes with chasmophytic vegetation Siliceous rocky slopes with chasmophytic vegetation Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles  <b>Species:</b> Otter ( <i>Lutra lutra</i> )	As per NPWS (2017) Conservation objectives for Wicklow Mountains SAC [002122]. Generic Version 1. National Parks and Wildlife Service Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (dated 31/07/2017).
Wicklow Mountains SPA [Site Code: 004040]	11km southeast of the facility	<b>Species:</b> Merlin ( <i>Falco columbarius</i> ) Peregrine ( <i>Falco peregrinus</i> )	As per NPWS (2018) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version

Code: 004040]			6.0. Department of Culture, Heritage and the Gaeltacht (dated 21/02/2018).
Mouds Bog SAC [Site Code: 002331]	12 km northwest of the facility	<b>Habitats:</b> Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	As per NPWS (2015) Conservation Objectives: Mouds Bog SAC [002331]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (dated 20/11/2015).
Pollardstown Fen SAC [Site Code: 000396]	14.5km west of the facility	<b>Habitats:</b> Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> Petrifying springs with tufa formation (Cratoneurion) Alkaline fens  <b>Species:</b> Geyer's Whorl Snail ( <i>Vertigo geyeri</i> ) Narrow-mouthed Whorl Snail ( <i>Vertigo angustior</i> ) Desmoulin's Whorl Snail ( <i>Vertigo moulinsiana</i> )	As per NPWS (2018) Conservation objectives for Pollardstown Fen SAC [000396]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht (dated 21/02/2018)
Ballynafagh Bog SAC [Site Code: 000391]	15.5 km northwest of the facility	<b>Habitats:</b> Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	As per NPWS (2015) Conservation Objectives: Ballynafagh Bog SAC [000391]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (dated 10/11/2015).
Ballynafagh Lake SAC [Site Code: 001387]	14.9 northwest of the facility	<b>Habitats:</b> Alkaline fens  <b>Species:</b> Desmoulin's Whorl Snail ( <i>Vertigo moulinsiana</i> ) Marsh Fritillary ( <i>Euphydryas aurinia</i> )	As per NPWS (2018) Conservation objectives for Ballynafagh Lake SAC [001387]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht (dated 21/11/2018).

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Site(s) at Red Bog, Kildare SAC [Site Code: 000397], Poulaphouca Reservoir SPA [Site Code: 004063], Wicklow Mountains SAC [Site Code: 002122], Wicklow Mountains SPA [Site Code: 004040], Mouds Bog SAC [Site Code: 002331], Pollardstown Fen SAC [Site Code: 000396], Ballynafagh Bog SAC [Site Code: 000391] and Ballynafagh Lake SAC [Site Code: 001387].

The activity is 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 activity, 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 activity was not required. The reasons for this determination are as follows:

- The installation is not located within the above European Sites.
- There is no hydrological connection between the facility and these European Sites.
- There will be no emissions of environmental significance from the activity.

- The activity will not result in damage to, or loss of, species and habitats of these European Sites.

## **6. Recommendation**

This memo recommends that the requested changes be accommodated by a Technical Amendment of Licence W0254-01 (held by Walshestown Restoration Ltd.), in accordance with Section 42B(1)(c) of the Waste Management Act 1996 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 40(4) of the Waste Management Act 1996 as amended, ceasing to be satisfied.

Signed,

*Catherine Collins*

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Senior Inspector  
Environmental Licensing Programme