



CONSULTANTS IN ENGINEERING & ENVIRONMENTAL SCIENCES

IRELAND UNITED KINGDOM POLAND SAUDI ARABIA

Our Ref: Q: LW14/120/02/Let003/TR/MG

Ms. Ewa Babiarczyk
The Environmental Protection Agency
Environmental Licensing Programme
Office of Climate, Licensing, Resources & Research
PO Box 3000
Johnstown Castle Estate
County Wexford

03 March 2015

Re: Response to Notification Re Regulation 10 (EPA Industrial Emissions (Licensing) Regulations 2013 (W0025-04)

Dear Ms. Babiarczyk,

Fehily Timoney and Company (FTC) is retained by Carlow County Council (CCC) to prepare the IED Licence Review Application for Powerstown Landfill (W0025-04) and to respond to any further requests for information.

This is in response to a letter dated 28 January 2015 from the Environmental Protection Agency (EPA) to Mr. Pat Connolly, Landfill Manager, Powerstown Landfill.

The EPA, in accordance with Regulation 10 of the Industrial Emissions (Licensing) Regulations, requests the information as follows in support of the application under Regulation 9 of the Regulations.

Documents referenced in this letter:

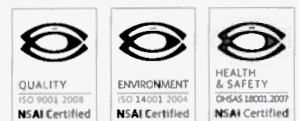
- Industrial Emissions Activities Licence Review Application for Powerstown Landfill, submitted to the EPA on 28 November 2014. This is referred to here as the Licence review application form.
- Included in the licence review application form is Annex 2: Checklist for Regulation 9 Compliance. This is referred to here as Annex 2 checklist.
- Attachments in Support of an Industrial Emissions Activities Licence Review Application for Powerstown Landfill, submitted to the EPA on 28 November 2014. This is referred to here as Attachments.

Based on the responses to some of the questions posed in this letter, updates were made to the above referenced Attachments document (Rev 0) which resulted in changes to the page numbering. It was not therefore practical to submit single pages where changes were made. Instead the entire Attachments document, which contains the Non-Technical summary is being re-submitted with this letter as Rev 1. Two hard copies and a pdf copy on CD-Rom are attached. The responses below indicate where a change has been made to the original Attachments.

Cont'd...

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Gerry O'Sullivan John Nolan Sarah Toal Stephen Byrne Tina Raleigh
Financial Controller: Colin O'Herlihy



EPA

1. As required under Regulation 9(2)(g), describe the practices at the installation that are covered by Class D1: Deposit into or on to land (e.g. including landfill, etc.), of the Third Schedule of Waste Management 1996, as amended, as a relevant class of activity.

Response

1. The Annex 2 checklist refers the reader to Attachment D.1 of the Attachments. Attachment D.1 Operational Information Requirements. This Attachment includes information on the developmental and operational history of the site, a site layout drawing, existing operations, plant, methods and processes which include recycling centre operations and landfilling operations, diversion of NMW, and ancillary infrastructure such as surface water, landfill gas, leachate and roads. There is also a section of emissions to the environment, abatement, treatment and recovery systems and a list of operational procedures. Supporting information on waste acceptance, the class of landfill, scale of deposition etc. is contained in Attachments D.2 and D.3. CCC does not propose any changes in landfilling operations as a result of an increase in tonnage from 40,000 tpa to 50,000 tpa. Landfilling operations will be in accordance with the conditions of the existing licence.

EPA

2. As required under Regulation 9(2)(k)(ii), state how the integrity of the liner in Cell 18 will be verified for its use for waste deposition. State when the cell was constructed. State the date it was quality assurance validated.

Response

2. The Annex 2 checklist refers the reader to Attachment F (Control and Monitoring). Attachment F.1 summarises the barrier system and other treatment, control and abatement systems. It refers the reader to Attachment D.1 which states that Cell 18 was constructed as part of the Phase 3 development of the landfill which took place in 2006. The liner specification is included. In accordance with Schedule B of Licence W0025-03, CCC was required to prepare a Specified Engineering Works (SEW) report for the development of the facility including preparatory works and lining. These works were subject to Construction Quality Assurance (CQA).

The CQA Report for Cell 17 and 18 was submitted to the EPA for approval on 22 August 2012. The EPA granted approval to commence waste acceptance in Cells 17 and 18 from 1 December 2012 (EPA reference W0025-03/ap08dm). This letter of approval is included as an Appendix 1 to this letter.

Cont'd...

EPA

3. As required under Regulation 9(2)(j) and 9(4)(d)(iv), clarify whether there have been any changes to monitoring locations, considering that Drawing LW14-120-02-002 dated 20.11.14 of the application form shows more monitoring locations than Table D.1.1 of the existing licence Reg. No. W0025-03. In support of your response, submit a drawing showing all active monitoring locations.

Response

3. Drawing LW14-120-02-002 dated 20.11.14 of the application shows all active monitoring locations. It is an updated drawing prepared in respect of the licence review application. The Annex 2 Checklist refers the reader to Attachment F. Attachment F.3 contains the tabular data on monitoring and sampling points (also submitted in excel format on CD-Rom in accordance with requirements). This table matches Drawing LW14-120-02-002 Rev A.

In accordance with Section B.13 of the licence application form, any agreed variations or adjustments to the conditions or schedules of the existing licence were included in Attachment B.13 Review of a Licence.

In respect of changes to monitoring locations as per Table D.1.1 of the existing licence (W0025-03), Attachment B.13 contains an explanation of the changes under heading 'Schedule D Monitoring'. 'Table 2.6 Amended Table D1 from W0025-03' contains the active monitoring locations. Information provided in Attachment B.13 reflects the monitoring locations as per Drawing No. LW14-120-02-002 Rev A.

Based on the time lapse between the licence application and this letter, Note 4 on Table 2.6 in Attachment B.13 can be removed. BH4 is located as per the Drawing.

Please find an updated version of Table 2.6 attached to reflect that change in Appendix 2.

EPA

4. As required under Regulation 9(2)(n), provide a baseline report in accordance with section 86B of the Environmental Protection Agency Act 1992, as amended. The baseline report should be prepared in accordance with European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions (2014/C 136/03).
 - a. Inclusive of this report please provide a quantified assessment of soil and groundwater pollution, if any, by the relevant hazardous substances that you have identified. Please any take into consideration their degradation products and metabolites.

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Response

4. Annex 2 Checklist refers the reader to Attachment I.4. That refers the reader to the Baseline Report Stages 1-5 included as Appendix I.4 to the Attachments. Groundwater monitoring has been carried out for substances which are hazardous to groundwater. Soil sampling has been completed and laboratory analysis is underway. A final version of the baseline report will be submitted in March 2015.

EPA

5. As required under Regulation 9(2)(s), describe arrangements for meeting the licence limits on acceptance of biodegradable municipal waste (BMW). State how it is intended that these targets will be complied with at the installation.

Response

5. The Annex 2 checklist refers the reader to Attachment H. Attachment H.5 states that 'Licence conditions 5.6 and 5.7 set the allowable quantities of biodegradable municipal waste (BMW) that can be accepted for landfilling. Licence condition 5.6.11 was updated by both TA (A) and by letter (W0025-03/gc10rc(bmw limit)). CCC does not propose any changes to the current method of waste acceptance. Currently waste accepted at the landfill is generated from both a 2 bin and a 3 bin waste collection system. With the introduction of the 3-bin system under the Waste Management (Food Waste) Regulations 2009 (S.I. No. 508 of 2009) and the European Union (Household Food Waste and Bio-waste) Regulations 2013 (S.I. No. 71) as amended by S.I No. 194 of 2013, the diversion of food waste from the residual fraction will increase.

The waste acceptance procedure is included as Appendix 4 to the Environmental Management System. The EMS is included as Appendix C.2 of the Attachments. Section 4 of the waste acceptance procedure defines the pre-treatment requirements at Powerstown Landfill.

Attachment H.5 has been amended to include the reference to the TA and EPA letter referenced above and to refer the reader to the waste acceptance procedures.

EPA

6. As required under Regulation 9(2)(s), describe any arrangements for the recovery and utilisation of the landfill gas generated at the facility.

Response

6. Landfill gas is recovered on site through the landfill gas management system (a gas collection system and an enclosed flare).

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There are no proposed changes to the management of landfill gas based on a higher tonnage allowance of 50,000 tpa. The landfill gas management system is described in Attachment D.1, Attachment D.3.5 and Attachment F.1. Landfill gas management protocols are included in the Odour Management Plan which is included as Appendix F.1. Section 4.10.1 of Attachment D.3.5 includes a comparison of estimates of landfill gas production based on a 40,000 tpa limit and a 50,000 tpa limit. The landfill gas management system is included in the non-technical summary. Landfill gas is not currently utilised on site, however CCC has recently held a preliminary meeting with the Carlow Kilkenny Energy Agency regarding the feasibility of utilisation.

EPA

7. As required under Regulation 9(2)(v), state the arrangements that are in place and necessary for the installation to comply with Directive 80/68/EEC.

Response

7. The Annex 2 checklist refers the reader to Attachment I.4 (Baseline Report) which is the subject of question 4. CCC is in the process of updating the Tier 2 & 3 assessment. In accordance with Technical Amendment B (Condition 8.8.2) the risk screening and technical assessment is due with this years' AER on March 31st 2015.

Since the application was submitted in November 2014, further information has become available on this topic and it has now been included in Attachment I.5 and also in the Non-Technical Summary.

EPA

8. As required under Regulation 9(2)(w), provide an updated non-technical summary that reflects information of the matters specified in subparagraphs (c) to (x) of paragraph 9(2) of the Regulations.

Response

8. An updated non-technical summary has been prepared for this response and is included in the Attachments document. Items which have been included are:
 - Summary of landfilling activities in Section 1.7 (9(2)(g))
 - Comparison of emissions monitoring results to BAT in Section 1.10
 - Waste diversion of dry recyclables and BMW in accordance with existing licence conditions contribute to national targets for the recycling and recovery of waste, Section 1.13 (9(2)(s))
 - Update of Section 1.10.4 in relation to groundwater – new information available since application first lodged in November 2014.

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EPA

9. As required under Regulation 9(3)(c), include results of emission monitoring and other data, that enables a comparison of the operation of the installation with the best available techniques described in the applicable BAT conclusions and with the emission levels associated with the best available techniques in accordance with Section 86A(9) of the Act of 1992.

Response

9. As required in Section B.13 of the licence review application form, a comparison of the results of emission monitoring with BAT from BAT Conclusions is included in Attachment B.13 Section 2.4.2. There is also reference to this topic in Attachments E.1 and E.2.

Data has now been included for noise emissions from the flare. It was incorrectly assumed that these had previously submitted to the EPA. The landfill gas flare is a potential noise source as well as a source of potential emissions to air. The emissions reference point name for both is the same, LFGF1 and is shown on the Drawing. Table E.5 (i) is included as Appendix 2 to this letter.

EPA

10. As required under Regulation 9(3)(a), explain the reason for seeking an increase in the authorised waste intake from 40,000 to 50,000 tonnes per annum, considering that the Annual Environmental Reports (AERs) for the past few years, is significantly below the existing limit of 40,000 tonnes per year. In support of your response, please state the sources of the increased waste tonnage proposed to be accepted.

Response

10. The reason for seeking an increase in the authorised waste intake from 40,000 to 50,000 tonnes per annum is described in Attachment B.13 under the heading 'Purpose of the Review.' Supporting information is contained in Attachment D.2.4 Principles of Self-Sufficiency and Proximity.

There increased demand from the market in 2014 for void at Powerstown due to the decrease in the number of landfills nationally. CCC was not in a position to accept waste from all of the contractors who sought void during 2014 due to the licence limit of 40,000 tpa.

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EPA

11. As required under Regulation 9(4)(c), submit a copy of the notice given to the Planning Authority under section 87(1)(a) of the Act of 1992.

Response

11. The Annex 2 Checklist (9(4)(c) refers the reader to Attachment B.6. Within Attachment B.6 there is a letter dated 11 November 2014 from CCC Environment Department to CCC Planning Department. Regulation 9(4)(c) and Section B.6 of the licence review application form use the term 'planning authority.' Powerstown Landfill is in the functional area of CCC.

EPA

12. As required under Regulation 9(4)(d), submit a site plan showing the waste composting area.

Response

13. Waste composting does not take place, nor has it ever taken place at Powerstown Landfill.

Each of the previous licences (W0025-01, -02 and 03) included licence approval for green waste composting. In accordance with licence condition 3.18.1 in W0025-03, CCC will need to comply with the following: *'Appropriate infrastructure for the composting of waste shall be established and maintained at the facility prior to any waste being composted. This infrastructure shall at a minimum comprise of that detailed in Article 14 response (No. 4) dated 23-03-04 and such that drainage from the composting area is directed to the leachate lagoon as detailed therein'*. In addition, Schedule B requires an SEW for the installation of the compost facility

CCC wishes to retain the permission in the licence for composting but has no immediate plans to develop the activity. In the event that CCC proposed to commence green waste composting, Condition 3.18.1 would be complied with, an SEW prepared and an updated site drawing submitted to the EPA.

Green waste is accepted at the recycling facility and is transferred off-site for recovery at an appropriate waste treatment facility. The green waste holding slab is shown on the site plan.

I trust the enclosed meets with your satisfaction and should you have any queries please contact the undersigned.

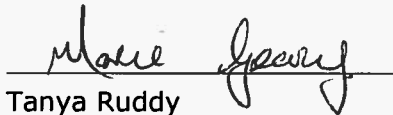
As a result of the response to this letter, a number of changes were made to the Non-Technical Summary and some of the Attachments. They are all contained in one document and the changes have resulted in changes to the page numbering.

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As such the Attachments document has had to be updated and is included with this letter (1 signed original, 1 copy in hardcopy format and 2 copies in electronic searchable PDF on CD-ROM). One change has been made to the Licence Review Application Form – Table E.5.i. This table is attached as Appendix 2 to this letter and is also included on the CD-ROM.

Yours sincerely,



p.p.
Tanya Ruddy
for and on behalf of **Fehily Timoney & Company**

Encls.

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Appendix 1

Cell 18 Waste Placement Approval

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Max,
see filing



Mr Pat Connolly
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Ref: Powerstown Landfill

27th September 2012

Our Ref: W0025-03/ap08dm

Dear Mr. Connolly,

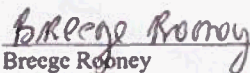
I refer to the Summary Construction Quality Assurance (CQA) Report for Cells 17 and 18 prepared by Feehily Timoney & Company, submitted by you dated 22/08/2012 and received by the Agency on 31/08/2012, in respect of your facility at Powerstown, Co. Carlow (W.L. Reg. No. W0025-03) and including your request to commence waste acceptance into Cells 17 and 18.

Based on the information submitted and in accordance with Condition 5.1 of your Waste Licence, the Agency agrees to the commencement of waste acceptance into Cells 17 and 18 from 1st December 2012 subject to compliance with the conditions of your licence.

The Agency reminds the licensee that emissions must conform to the emission limit values set out in Waste Licence (Reg. No. W0025-03).

Please quote the above reference in any further correspondence in relation to this issue. If you have and queries in relation to any of the issues above please contact a member of OEE Licence Enforcement Team A, EPA Headquarters at the number above.

Yours sincerely


Breege Rooney
Inspector
Office of Environmental Enforcement



Appendix 2

Table E.5 (i) from Licence Review Application Form

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Table E.5(i): NOISE EMISSIONS - Noise sources summary sheet

Source	Emission point Ref. No	Equip ment Ref. No	Sound Pressure ¹ dBA at reference distance	Octave bands (Hz) Sound Pressure ¹ Levels dB(unweighted) per band									Impulsive or tonal qualities	Periods of Emission ²
				31.5	63	125	250	500	1K	2K	4K	8K		
Landfill gas flare	LFGF1		53 dBA at 5 m from blower side	76.9	66.5	61.5	54.1	48.3	46.2	39.2	45	33.5	Tonal	Continuous
Landfill gas flare	LFGF1		60 dBA at 5 m from flare stack	75.8	74.7	71.1	62.0	55.1	53.9	44.0	39.7	28.7	Tonal	Continuous

1. For items of plant, sound power levels may be used.
2. Periods of emission should state if the plant item in question operates on a continuous or intermittent basis. If intermittent then further details of the hours of operation and any potential impulsive components associated with the source should be clearly identified.

The results for sound pressure levels presented are unweighted (L_{Zeq}) and 1:1 octave band frequency was carried out, as it was a point source of noise. The results for the sound pressure at the reference distance are A weighted.