

Extract from the 564th meeting of the Agency held on 21 November 2008, in Headquarters, Johnstown Castle Estate, Co Wexford.

3. **Report on the Oral Hearing of the Objections to a Proposed Decision on a Waste Licence**

Licensee: **Dublin City Council
Pigeon House Road
Poolbeg
Dublin 4**

Register of Licence No: **W0232-01**

The Directors resumed consideration of the Report on the Oral Hearing of the Objections to the Proposed Decision on the Waste Licence Application for the Dublin Waste to Energy Project at Pigeon House Road, Poolbeg, Dublin 4, Register of Licence number W0232-01 and the conclusions and recommendations of the report. The Directors noted that the Oral Hearing had been conducted in the Gresham Hotel, O'Connell Street, Dublin on the 14th to 18th April; 21st to 24th April and 1st May 2008.

The following documentation was tabled:

- Report and recommendations of the Chairperson on the Oral Hearing
- Proposed Decision, issued by the Agency on 21 November, 2007
- Objections from the Applicant and Third Parties
- Copy of the licence application.

The Chairperson of the Oral Hearing, Ms Marie O'Connor, and her assistant, Ms Ann Marie Donlon, presented their Report to the Directors at a meeting of the Agency held on 30 September 2008 detailing the key issues of the Oral Hearing and their recommendations, as set out in the Report.

The Directors discussed the report and recommendations in detail, including the objections received from the Applicant and Third Parties, and issues raised at the Oral Hearing, at subsequent meetings of the Agency on 7 October, 4 November and 11 November where the Directors had deferred a final decision pending further clarification of issues raised.

The Directors discussed the issue of waste to be accepted at the facility in detail. In considering the issue the Directors had regard to the waste licence application, the Proposed Direction, submission number 30 of the Oral Hearing Report and other relevant submissions and objections and the Chairperson's report. The Directors considered that the waste recommended by the Chairperson to be accepted at the facility should be amended to allow for the proper management of waste within the region subject to specified conditions on the quantities of waste to be accepted and satisfactory characterisation of the waste.

The Directors accepted the Chairperson's recommendation to grant a licence, with conditions, as recommended in the Report on the Oral Hearing

of the Objections. Following detailed discussions the Directors made some additional modifications to clarify and strengthen the licence conditions, as follows:

Proposed Decision

Introduction

Amend 2nd paragraph to read: This licence is for the operation of an incinerator to burn non-hazardous waste and to recover energy in the form of steam and electricity (incineration plant) for export to the national grid at Pigeon House Road, Poolbeg, Dublin 4 *and for the transfer of heat to a municipal district heating scheme, when such a system is available.* The facility covers an area of approximately 5.5ha.

Amend 4th paragraph to read: Infrastructure for the incineration plant includes waste reception area, furnace, boiler, energy recovery system, facilities for the treatment of exhaust gases, on-site facilities for handling and storage of residues and waste water, stack, devices and systems for controlling, recording and monitoring the incineration process. The plant will have two incineration lines with a design capacity of 35 tonnes per hour each, which equates to 300,000 tonnes per line per annum. *The heat produced from the process will be used to generate electricity (of which approximately 60MW will be exported to the national grid) and to provide heat for a district heating scheme, when such a system is available.*

Glossary of Terms

Insert entry for Mixed Municipal Waste to read:

Mixed municipal waste means waste from households as well as commercial, industrial and institutional waste, which because of its nature and composition is similar to waste from households, but excluding fractions indicated in the Annex to Decision 94/3/EC (4) under heading 20 01 that are collected separately at source and excluding the other wastes indicated under heading 20 02 of that Annex.

Decision and Reasons for the Decision

The Directors, having regard to the information contained in the licence application, the conditions of the Proposed Decision, the Chairperson's report on the Oral Hearing and associated documentation, decided that in order to allow for the proper management of waste at the facility the activities to be licensed or refused as recommended by the Chairperson should be amended. The Directors decided:

Part I – Schedule of Activities Licensed

- to accept the recommendation to reword Class 8 'waste disposal activity'
- not to accept the recommendation to refuse the following waste disposal activities: Class 12 and Class 13
- not to accept the recommendation to refuse the following waste recovery activities: Class 3, Class 4, Class 6, Class 9 and Class 13.

Part II – Schedule of Activities Refused

- to accept the recommendation to refuse the following waste disposal activities: Class 6, Class 7 and Class 10;

- to refuse Class 11 as it was not included in the Proposed Decision and is considered a normal and integrated step in the facility technical processes and is not an independent waste treatment process for wastes imported to, or produced on, the site;
- to accept the recommendation to refuse Class 8 'waste recovery activity' given in the Oral Hearing Report.

Condition

- 1.5 Amend to read: *The waste activities at this facility shall be limited to the waste categories and quantities as set out in Schedule A: Limitations, of this licence.*
- 2.3.2.2 Amend to read:
 Schedule of Environmental Objectives and Targets.
 The licensee shall prepare a schedule of Environmental Objectives and Targets. The Schedule shall as a minimum provide for a *feasibility study on the export of energy to the Ringsend WWTP for the drying of WWTP sludge*, a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production, and the prevention, reduction and minimisation of waste, and shall include waste reduction targets. The schedule shall include time frames for the achievement of set targets and shall address a five year period as a minimum. The schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).
- 3.2.3 Amend to read: *The licensee shall install, at monitoring and sampling locations, appropriate equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring points.*
- 3.5.3 Amend to read: *Drainage from these areas shall be directed to a process water storage tank that is not connected to the stormwater system. Water from the storage tank shall be either used as process water in the incineration plant, or if unsuitable, directed to the waste bunker. It shall not be discharged to the surface water or foul sewer system.*
- 3.9.2 Insert condition to read: *The licensee shall carry out an investigation into the feasibility of the use of an enclosed conveyor system for the transfer of bottom ash to trucks/containers and to any off-site storage area with reference to the EC Reference document on Best Available Techniques on Emissions from Storage. A report on the methods to be used for the handling/transfer of the incinerator residues shall be submitted to the Agency, for agreement, prior to the commencement of the waste activity.*

3.16 The Directors decided not to accept the recommendation of the Chairperson to insert a new condition 3.16.3. The Directors determined that ambient air quality in this area is most appropriately regulated under ambient air quality Regulations.

3.19 Amend to read:

3.19 *Abnormal operation/breakdown*

3.19.1 *In the case of a breakdown, the licensee shall reduce or close down operation of the relevant process line(s), as soon as practicable, until normal operations can be restored. The licensee shall not resume incineration operations except in accordance with a protocol agreed with the Agency.*

3.19.2 *In the case of abnormal operations:*

(a) the licensee shall under no circumstances continue to incinerate waste in the relevant process line for a period of more than four hours uninterrupted where emission limit values specified in Schedule B.1 are exceeded, and

(b) the cumulative duration of abnormal operation over one calendar year shall be less than 60 hours, and

(c) the total dust content of the emissions from the combined stacks (A2-1 and A2-2) shall under no circumstances exceed 150 mg/m³ (expressed as a half-hourly average) and the emission limit values specified in Schedule B.1 for CO and TOC shall not be exceeded.

Reason: To provide for the proper management of the facility in accordance with the Waste Incineration Directive.

3.25 The Board decided to retain condition 3.25 and insert a new condition, renumbered appropriately, as follows:

The licensee shall, having regard to Conditions 7.1 and 7.2, assess the feasibility of an air cooled system having regard to the EC Reference Document on the application of Best Available Techniques to Industrial Cooling Systems, November 2000 and the cooling needs of the facility. The assessment shall be submitted to the Agency prior to the commencement of construction.

4.2 Amend to read:

Emission limit values for emissions to waters in this licence shall be interpreted in the following way:

4.2.1 Continuous monitoring

4.2.1.1 *98% of all flow values over the year, calculated as m³/hr, shall not exceed the emission limit value.*

4.2.1.2 *No daily mean flow value shall exceed the emission limit value.*

4.2.1.3 *98% of all temperature values over the year, calculated as an hourly average, shall not exceed the emission limit value.*

4.2.1.4 *No temperature value shall exceed the emission limit value by more than 0.5°C.*

4.2.1.5 *No total residual chlorine value shall exceed the emission limit value.*

5.5 Amend to read: The licensee shall ensure that all or any of the following:

- Vermin,
- Birds,
- Flies,
- Mud,
- Dust,
- Litter,

associated with the activity do not result in an impairment of, or an interference with amenities or the environment at the facility or beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary. *The licensee shall consult with the National Parks and Wildlife Service (where relevant) with regard to any method proposed by the licensee to control or prevent any such impairment/interference. In any event the proposed method shall not cause environmental pollution.*

5.7 Amend to read: *The licensee shall, prior to the commencement of the waste activity, submit a report to the Agency on the feasibility and reliability of monitoring methods/techniques to determine the Cr(VI) fraction of the Total Cr, the particle size distribution and the particle number of the ultrafine (<PM_{0.1}) fraction of the total dust from Emission Point Reference No. A2-1 & A2-2. The licensee shall carry out such monitoring as is agreed with the Agency following an evaluation of the recommendations of the report.*

5.8 Amend to read: *No emission of process cooling water shall cause, in the receiving water outside the mixing zone:*

- (a) *the temperature to exceed the unaffected temperature by more than 1.5°C, during the period 1st May to 30th October or*
- (b) *the temperature to exceed 21.5°C, or*
- (c) *the total residual chlorine level to exceed 0.005mg/l (as HOCl).*

The mixing zone shall not exceed 25% of the estuarine cross sectional area at any point. The thermal discharge shall not cause sudden variations in temperature in the receiving water.

6.17 & 6.18 Amend and renumber accordingly:

6.17 *Receiving Water*

6.17.1 *The acute toxicity of the undiluted final effluent to at least four aquatic species from different trophic levels shall be*

determined by standardised and internationally accepted procedures and carried out by a competent laboratory. The name of the laboratory and the scope of testing to be undertaken shall be submitted, in writing, to the Agency, within three months of the date of commencement of licensed activity. Once the testing laboratory and the scope of testing have been agreed by the Agency, the Agency shall decide when this testing is to be carried out and copies of the complete reports shall be submitted by the licensee to the Agency.

- 6.17.2 *Having identified the most sensitive species outlined in Condition 6.17.1, subsequent compliance toxicity monitoring on the two most sensitive species shall be carried out by the laboratory identified in Condition 6.17.1 as per Schedule C: Control and Monitoring of this licence. The Agency shall decide when this testing is to be carried out and copies of the complete reports shall be submitted by the licensee to the Agency within six weeks of completion of the testing.*
- 6.17.3 *The licensee shall undertake a biological survey of the receiving water upstream and downstream of the cooling water outfall within twelve months of commencement of the waste activity and biennially thereafter. The licensee shall have regard to the Dublin City Council Biodiversity Plan in scoping the survey and shall consult with the Agency and the Eastern Regional Fisheries Board on the timing, nature and extent of the survey. The survey shall, as a minimum, include a fish diversity study.*
- 6.17.4 *Screens on the discharge pipe shall be examined, and details recorded, once a week during the period 1st May to 30th September.*
- 6.17.5 *A report of the testing, survey and examination referred to in paragraphs 6.17.1, 6.17.2 and 6.17.3 above shall be included as part of the AER.*
- 6.19 *Amend to read: The licensee shall undertake a thermal survey of the estuary upstream and downstream of the cooling water channel outfall within twelve months of commencement of the activity. The licensee shall consult with the Agency on the timing, nature and extent of the survey (to include assessment of the design and effectiveness of the cooling water discharge system in distributing the thermal load to the estuary, and the optimisation of the ratio between cooling water volume and temperature), and shall develop a survey programme to the satisfaction of the Agency. The survey programme shall be submitted to the Agency in writing at least one month before the survey is to be carried out. A record of the survey results shall be available for inspection by any authorised persons of the Agency, at all reasonable times and a summary report of this record shall be included as part of the AER. The survey shall be repeated as required by the Agency.*

- 6.20 Amend to read: In complying with ... (... industrial discharges) *thermal ambient* river survey proposal.
- 7.1 Amend to read: *The licensee shall, prior to the commencement of construction of the facility, review the energy efficiency aspects of the design to maximise the recovery of the energy generated from the incineration of waste. Surplus energy from the operation of the facility shall be exported to the Dublin district heating system (when such system is available) and the National Grid.*

Insert new condition 7.2 as follows and renumber subsequent conditions accordingly:

The licensee shall build and operate the facility to achieve an energy efficiency of, as a minimum, 0.65 using the formula below to calculate Energy Efficiency:

Energy Efficiency = $[E_p - (E_f + E_i)] / [0.97 \times (E_w + E_p)]$ where

*E_p = annual energy produced as heat or electricity (GJ/year)
(heat produced for commercial use is multiplied by 1.1
and electricity is multiplied by 2.6)*

E_f = annual energy input to the system from fuels contributing to the production of steam (GJ/year)

E_w = annual energy contained in the waste input using the lower net calorific value of the waste (GJ/year)

*E_i = annual energy imported excluding E_w and E_f
and 0.97 is a factor accounting for energy losses.*

- 7.2 Renumber and amend to read: *The licensee shall carry out an audit of the energy efficiency of the facility within one year of the date of commencement of waste acceptance. The licensee shall consult with the Agency on the nature and extent of the audit and shall develop an audit programme to the satisfaction of the Agency. The audit programme shall be submitted to the Agency in writing at least one month before the audit is to be carried out. The energy efficiency audit report shall, as a minimum, include:*

- (a) A review of opportunities for increasing the overall efficiency of the facility over the coming year,
- (b) Progress with those opportunities identified in the previous report,
- (c) *The energy efficiency of the facility.*

The report shall include a full breakdown of each parameter in the equation referred to in Condition 7.2 including the net usable energy produced per tonne of waste processed.

The audit shall be repeated annually and submitted to the Agency in the AER.

- 8.13 Retain condition and renumber as appropriate.

- 11.11 Amend to read: The licensee *shall as part of the Annual Environmental Report for the facility submit a report on the contribution by this facility to the achievement of the waste recovery objectives stated in Condition 2.2.2.2 and as otherwise may be stated in National and European Union waste policies and shall, as a minimum, include the tonnages of the following:*
- (a) The pre-treatment of the municipal waste prior to being accepted at the facility,*
 - (b) The recovery of incinerator residues on-site or off-site and their final use.*

Schedule

A Amend to provide for changes to waste type descriptions, maximum annual tonnages associated with waste types and European Waste Catalogue codes.

B & C Amend Schedules B.4, C.2.2, C.4.1 and C.6.3 as recommended by chairperson or to clarify or strengthen the licence conditions.

A number of other minor amendments, such as in respect of punctuation, were made to improve and clarify the text of the licence.