



OFFICE OF
RESOURCE USE

This report has been cleared for submission to the Director by Frank Clinton, Programme Manager
Signed *Abdon Lock* Date *23/12/15*

ENVIRONMENTAL LICENSING PROGRAMME MEMORANDUM

TO:	DIRECTOR
C.C:	Frank Clinton, Programme Manager
FROM:	Brian Meaney, Senior Inspector
DATE:	23 December 2015
RE:	Request for a Technical Amendment to IE Licence Register Number W0184-01 held by Enva Ireland Limited for a facility at Clonminam Industrial Estate, Portlaoise.

The Agency received a request on 27 November 2015 to amend the Industrial Emissions licence register number W0184-01. The request relates to a proposed new treatment method to deal with odorous off-gases from processes at the installation.

This memo recommends refusal of the request.

Introduction

Enva Ireland Ltd is authorised for the operation of a hazardous and non-hazardous waste treatment and transfer installation at Portlaoise. The facility was first authorised by IPC licence (P0472-01) in January 2000. The IPC licence was replaced by a waste licence in January 2004. The waste licence was technically amended in October 2005, February 2011 and January 2013. The waste licence was amended in December 2013 for the purposes of the Industrial Emissions Directive. The licence is now an Industrial Emissions licence.

Up to 110,000 tonnes per annum of non-hazardous and hazardous waste can be accepted at the installation. According to the Annual Environmental Report for 2014, some 22,800 tonnes of waste were accepted at the installation.

Details of request for technical amendment under section 96 of the EPA Acts 1992, as amended

The licensee has requested amendment of condition 5.3 as follows:

"5.3 Drying of waste oils will be carried out with an appropriate abatement system operating to ensure air emissions from these tanks do not give rise to nuisance at the facility or the immediate area of the facility."

[The existing condition 5.3 of the licence comprises eight sub-conditions. It is assumed for the purposes of this report that the licensee does not propose deleting the existing condition 5.3. Rather, it is taken that the proposed new wording is to be inserted as condition number 5.3.9].

Technical proposal

The new condition is to be associated with the:

"installation of a thermal oxidiser to abate odour emissions from the existing oil drying tanks."

An outline of the proposed system was provided with the technical amendment request. The following is a summary.

Warm, water-laden vent gases from the oil heating tanks will be captured by new ductwork and delivered to a preheater to increase the gas temperature to 110°C to remove aerosols and oil and water droplets and prevent condensation and corrosion in the regenerative thermal oxidiser (RTO). The preheater will use steam from the existing steam-raising boiler.

The heated vent gases are directed to the RTO and passed through one of three regeneration towers. Further pre-heating takes place and some of the hydrocarbons are oxidised. The hot gases pass to the combustion chamber where they are heated to 850°C. The combustion exhaust gases are passed through the other regeneration towers to transfer heat for the next batch of vent gases. The exhaust gases are vented at 123-140°C.

The RTO will be started up and heated using air and natural gas. Natural gas will be used during the process to make up any shortfall in the available exothermic energy from the VOCs in the vent gases.

Safety measures are built into the RTO design to detect and prevent the combustion of vent gases with VOCs that exceed the lower explosion limit of 25%. Any such gases will be diluted with atmospheric air or, through a bypass line, vented directly to atmosphere.

The RTO system can handle a maximum vent gas flow rate of 24,600m³/h with a VOC loading of 160kg/h. Emission levels during stable operation will be:

Removal efficiency of organic odours	>95%
TOC	≤20mg/Nm ³
CO	≤100mg/Nm ³
NOx	≤200mg/Nm ³

Discussion

Proposed new condition

It is not clear how the proposed new condition (quoted above) will serve the installation, operation or regulation of the RTO system. The existing conditions of the licence will provide the same net effect as that proposed in the new condition. These conditions are as follows:

- 6.2 The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.
- 7.2 The licensee shall ensure that dust, noise and odours do not give rise to nuisance at the facility or the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution or contravene any national statutory protection granted in respect of protected species or cause significant interference with amenities or the environment beyond the site boundary.

I am of the opinion that, with the regulatory controls expressed by conditions 6.2 and 7.2 of the licence, there is no need for the proposed new licence condition of itself.

Regulation of RTO and its emissions

The vent gases from the oil heating tanks have been attributed as the source of odorous emissions from the installation and the cause of complaints from residents in the vicinity. The purpose of the RTO is to treat the waste gases and prevent odorous emissions. The regulation of a thermal oxidiser through a licence is normally through the identification, in the licence, of an emission point and the regulation of emissions at that point by emission limit values. It is necessary to demonstrate that these limit values are low enough that they will not cause an exceedence of air quality standards or odour nuisance.

The licensee has provided information on the nature and characteristics of the RTO exhaust gases. However there is no information on the environmental impact of the emissions at these emission values. The emissions will have to be modelled to predict the ground level concentration of relevant substances in the vicinity of the installation and ensure that air quality standards are not exceeded. An odour dispersion model may also be required because odour is the source of the complaints.

The Agency will have to carry out a screening for appropriate assessment. If screened in, a full appropriate assessment will be required.

The Agency will have to carry out a screening for environmental impact assessment (EIA). If screened in, EIA will be required. Consultation will have to take place with the planning authority as part of the EIA process. There will also be a need to determine whether planning permission is required for the installation of an RTO and whether the planning authority did or would require an EIS to be submitted with a planning application.

In the normal course of events, a request of this nature would not be accommodated by technical amendment.

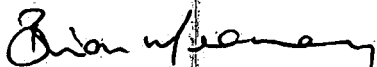
Also, the technical amendment process affords no opportunity for public participation or the acceptance of submissions from third parties. Given the fact that a new emission point is proposed, it is appropriate that public participation is part of the process.

Recommendation

I recommend that the requested technical amendment, being the proposed insertion of a new condition into licence register number W0184-01, should be refused because the proposed licence condition provides no new regulatory controls that don't already exist in the licence.

With regard to the proposal to install an RTO and a new emission point, I recommend that the Agency inform the licensee that the necessary environmental assessments and licence amendments cannot be carried out as a technical amendment to the licence.

Signed:



Brian Meaney

The first part of the document discusses the general principles of the proposed system. It outlines the objectives and the scope of the project, emphasizing the need for a comprehensive and integrated approach to the problem at hand. The text highlights the importance of collaboration and communication among all stakeholders involved in the process.

The second part of the document provides a detailed description of the system's architecture and components. It explains how the various elements of the system are interconnected and how they work together to achieve the desired outcomes. This section includes a thorough analysis of the system's strengths and potential limitations, as well as a discussion of the challenges that may be encountered during implementation.

The third part of the document focuses on the implementation and evaluation of the system. It describes the steps that need to be taken to ensure a smooth and successful transition from the current state to the proposed system. This includes a detailed plan for the deployment of the system, as well as a strategy for monitoring and evaluating its performance over time.

The fourth part of the document discusses the future directions of the system and the ongoing support required to maintain its effectiveness. It emphasizes the importance of continuous improvement and the need to stay abreast of the latest developments in the field. The text also outlines the roles and responsibilities of the various stakeholders involved in the long-term success of the system.

The fifth part of the document provides a summary of the key findings and conclusions of the study. It reiterates the main points made throughout the document and offers a final perspective on the overall impact of the proposed system. The text concludes with a strong statement of confidence in the system's ability to address the challenges it was designed to solve.

The sixth part of the document includes a list of references and a list of figures. The references cite the various sources of information used in the study, while the figures provide a visual representation of the data and concepts discussed in the text. This section is essential for providing context and supporting the claims made in the document.

The seventh part of the document is a concluding statement that summarizes the overall message of the document. It expresses the authors' hope that the proposed system will be widely adopted and that it will make a significant contribution to the field. The text also offers a final thought on the importance of innovation and the pursuit of excellence in the face of complex challenges.

The eighth part of the document is a list of appendices that provide additional information and data related to the study. These appendices are included to support the main text and to provide a more complete picture of the research. They include detailed technical specifications, data tables, and other relevant information that may be of interest to the reader.