

## Attachment-7-1-3-1 – Emissions Compliance Report

### 1.0 INTRODUCTION

This section includes an assessment of the proposed emissions in terms of compliance with current Emission Limit Values (ELVs) and statutory instruments. The following instruments have been considered when assessing the compliance of all potential emissions:

- Emissions to Air: Medium Combustion Plant (MCP) Directive, European Union (EU) 2015/2193 on the limitation of emissions of certain pollutants into the air from medium combustion plants (see Attachment-7-1-3-2-Air Emissions Impact);
- Stormwater Emissions: Consideration of European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI 272 of 2009) as amended in 2012, 2015, and 2019.
- Noise Emissions: Environmental Protection Agency (EPA) publication Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) 2016. (see Attachment-7-1-3-2-Noise Emissions Impact Assessment)
- Protection of Groundwater: European Communities Environmental Objectives (Groundwater) (Amendment) Regulations, 2016 (Statutory Instrument No. 366 of 2016) and 2010 (Statutory Instrument No. 9 of 2010), i.e. GTV, and the Environmental Protection Agency (EPA) Draft Interim Guidelines Values (IGVs) for the Protection of Groundwater, 2003.

### 2.0 EMISSIONS TO AIR

There are no major air emissions proposed. There will be a total of 72 Minor air emission points at the site upon completion, comprising 9 no. 6.49 MW<sub>th</sub> diesel powered emergency back-up generators; 22 no. 6.33 MW<sub>th</sub> diesel powered emergency back-up generators and 39 no. 5.59 MW<sub>th</sub> diesel powered emergency back-up generators, and 2 no. 0.420 MW<sub>th</sub> diesel powered emergency back-up fire pumps. The emissions of CO<sub>2</sub> from these generations will be controlled under the Greenhouse Gas Permit for the installation.

The stack heights of the emergency back-up generators for the site have been designed in an iterative fashion to ensure that an adequate height was selected to aid dispersion of the emissions and achieve compliance with the EU ambient air quality standards at all off-site locations (including background concentrations).

Predictive air dispersion modelling, undertaken as part of this application, is demonstrated in Attachment-7-1-3-2-Air Emissions Impact. Attachment-7-1-3-2-Air Emissions Impact has demonstrated that there would be no breach of the air quality standard for NO<sub>x</sub> resulting from the three plausible scenarios modelled for the installation (i.e. emergency operations scenario, and cumulative impact scenario).

There are no emission limit values (ELVs) proposed for the emergency generators as they will be designated minor air emission points; there are also no statutory emission limits applicable under the Medium Combustion Plant Directive. Regulation 13(3) of the European Union (Medium Combustion Plants) Regulations 2017 states that:

*new medium combustion plants which do not operate more than 500 operating hours per year, as a rolling average over a period of three years, shall not be required to comply with the emission limit values set out in Part 2 of Schedule 2 but, where they burn solid fuels, shall comply with an emission limit value for dust of 100mg/Nm<sup>3</sup>.*

In accordance with Regulation 13(3), the hours of use for the generators will be under the threshold limit and as such the emission limit values do not apply.

### 3.0 STORMWATER EMISSIONS

Details of the proposed stormwater drainage is presented in Attachment-4-8-1 (Operational Report). All site stormwater will be drained via various hydrocarbon interceptors to one of 4 no. stormwater attenuation systems (See Drawing 21\_123D-CSE-00-XX-DR-C-1100). The cooling water discharged from the evaporative cooling units is effectively clean water that has passed through the cooling equipment.

The attenuated stormwater discharges offsite at 4 no. Emission Points (SW1, SW2, SW3, SW4) as shown on Drawing Reference: 21\_123D-CSE-00-XX-DR-C-1100 Surface Water Layout Plan.

The 4 no. emissions points discharge stormwater to the 1200 mm diameter existing surface water drainage main, located to the south of the public road and runs through the IDA Blanchardstown Business and Technology Park. This stormwater main flows east to the man-made attenuation and detention structure (artificial lake) located in College Business Park, from here it drains westwards to the Ballycoolin Stream, the Ballycoolin Stream flows 1.2 km downstream in a southerly direction and conflues with River Tolka.

In accordance with BAT, clean stormwater will be kept separate from contaminated wastewater and there will be no inherent risk of cross-contamination.

The only chemical hazardous to the environment that is stored onsite is diesel. Diesel will be prevented from entering the attenuation pond by the hydrocarbon interceptors. The interceptors have level alarms that will be triggered if the interceptor is overloaded or malfunctions.

Due to the nature of the run-off (stormwater from buildings and roads only) and the inclusion of hydrocarbon interceptors, the proposed discharge is unlikely to contain more than trace hydrocarbons and metals. It is not anticipated that the surface water quality will exceed the Environmental Quality Standards as set out in the European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended.

Stormwater run-off will be from buildings and car parks only and therefore there is no expectation to undertake regular sampling of the stormwater prior to discharge. It is proposed that weekly visual inspections for discolouration and odour are undertaken upstream of the stormwater discharge points (Monitoring Point SW1-1, SW2-1, SW3-1, and SW4-1).

Further detail on the storm water network and emissions is set out in Attachment 4-8-1 Operational Report.

#### 4.0 FOUL WATER EMISSIONS

Domestic effluent arising from occupation of the Installation will be collected in foul drains within the site and discharged to the existing foul drainage network. The foul network ultimately discharges into a regional pumping station before final treatment and disposal at Ringsend Wastewater Treatment Plant (WWTP) in Dublin.

Further detail on the foul water network and emissions is set out in Attachment 4-8-1 Operational Report.

#### 5.0 NOISE EMISSIONS

Reference has been made to the EPA publication *Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) 2016*, as the proposed facility will be licenced by the EPA. This guidance is used to set operational noise limits from activities under the control of the EPA (manufacturing, industrial, waste management etc.). This document sets out a procedure for applying appropriate operational noise limits from this type of facility at the nearest noise sensitive receptors taking account of the background noise environment.

The baseline receiving environment has been defined by surveys. The results of these surveys are presented in the Emissions Impact Assessment Attachment Attachment-7-1-3-2-Noise Emissions Impact Assessment (Section 3).

The surveys were conducted in general accordance with ISO 1996-2:2017 *Acoustics - Description, Measurement and Assessment of Environmental Noise*.

Based on the EPA NG4 Guidance the following Noise Criteria are appropriate at the nearest NSL's to the facility:

- |                                   |                               |
|-----------------------------------|-------------------------------|
| • Daytime (07:00 to 19:00)        | 55dB L <sub>Ar</sub> (15mins) |
| • Evening (19:00 to 23:00)        | 50dB L <sub>Ar</sub> (15mins) |
| • Night time (23:00 to 07:00 hrs) | 45dB L <sub>Ar</sub> (15mins) |

The predicted noise levels at all noise sensitive locations are below the day, evening and night time noise criteria. This is presented in the Emissions Impact Assessment Attachment-7-1-3-2-Noise Emissions Impact Assessment (Section 5).

It is proposed that annual noise monitoring at 3 no. locations be carried out once the facility is licenced (see Attachment 7-5).

#### 6.0 PROTECTION OF GROUNDWATER QUALITY

There will be no direct discharges of contaminated water to groundwater or to the soil environment during the operation of the installation.

As part of this assessment, consideration has been given to EU Council Directive 2006/118/EC in relation to the protection of groundwater. The 2006 Directive establishes specific measures as provided for in EU Council Directive 2000/60/EC in order to prevent and control groundwater pollution. The Directive also complements the provisions for preventing or limiting inputs of pollutants into groundwater already

contained in Directive 2000/60/EC and aims to prevent the deterioration of the status of all bodies of groundwater<sup>1</sup>.

Under the 2006 Directive, Member States must give consideration to the water quality standards in the Directive as well as establishing threshold values or 'trigger values' which warn of potential breaches of water quality standards but are not water quality standards themselves. The relevant Groundwater Threshold Values (GTVs) for Ireland are outlined in the Environmental Objectives (Groundwater) (Amendment) Regulations 2016 (S.I. No. 366 of 2016). These Regulations give effect to the EU Directive 2014/80/EU of 20 June 2014, which amends Annex II to Directive 2006/118/EC.

The results of the recent groundwater sampling rounds are presented in Section 8 *Stage 7 – Site investigation* of the Baseline Report (Attachment-4-8-3). The soil quality data is limited for the facility. However, based on available data, there is no evidence of contamination within the soils beneath the site. There is no groundwater quality available and no existing monitoring boreholes to facility collection of samples.

On the basis of the results from the Baseline Report, and the proposed activities at the installation, it is considered that operations at the facility are unlikely to cause an exceedance of the EPA IGVs<sup>2</sup> or the relevant Groundwater Regulations<sup>3</sup>.

An Environmental Management System (EMS) will be in place to ensure compliance with licencing requirements. This will include full and adequate containment and management of potential contaminants. Site-specific emergency response measures are in place and relevant personnel will be trained accordingly. Additional measures to minimise any impact on the groundwater or soil from material spillages will be implemented as outlined in the Operational Report (Attachment 4.8.1) including integrally bunded fuel tanks, impervious loading areas, double lined fuel delivery lines (when underground), and the use of interceptors on storm water network.

The only relevant bulk hazardous substances (substances stored or used onsite and which are classified as hazardous by the EPA under the Groundwater Regulations and contained in bulk storage) is diesel for back up generators. Further detail on the diesel storage is set out in Attachment 4-8-1 Operational Report.

The Class 1 hydrocarbon interceptors are located down gradient of each attenuation basins and storm cell to ensure the quality of stormwater discharge is controlled prior discharge offsite. The interceptors are equipped with level detection and will connect to the BMS/EPMS critical alarm.

Stormwater discharge from the offloading areas for the top up tank at Building D also discharge through the Class 1 hydrocarbon interceptor upgradient of the attenuation storage no. 3.

Additional onsite control and mitigation measures are in place including:

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<sup>1</sup> Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration

<sup>2</sup> Environmental Protection Agency (EPA) Draft Interim Guidelines Values (IGVs) for the Protection of Groundwater, 2003

<sup>3</sup> European Communities Environmental Objectives (Groundwater) (Amendment) Regulations, 2016 (Statutory Instrument No. 366 of 2016) and 2010 (Statutory Instrument No. 9 of 2010),

- Double skinned diesel belly tanks and day tanks, with high- and low-level alarms;
- Bunded bulk diesel and diesel top up tanks with high- and low-level alarms;
- Diesel tank (Bulk and Top Up) bunds and delivery bays are equipped with hydrocarbon probes in the bund sump which detects diesel in the bund. This triggers closure of the sump discharge and sends an alarm signal to the BMS.
- Hydrocarbon interceptors with level alarms; and
- Standard operating procedures for fuel delivery.

Further detail on the diesel storage, management, and control features are set out in Attachment 4-8-1 Operational Report.

## 7.0 REFERENCES

Environmental Protection Agency (EPA). EPA Maps. Available at: <https://gis.epa.ie/EPAMaps/> (Accessed: May 2021).

Geological Survey of Ireland; Accessed 2021. Available at: <http://www.gsi.ie> (Accessed: May 2021).

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