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Industrial Emissions Licence Review 7-1 Emissions Overview - Compliance Report with ELVs

Reference Number:	Compliance Report
Version:	1
Date of Issue:	09-09-2020

1. Surface Water

The installation has four (4) main emissions points for discharging to water. All four emission points are included in the current licence (P0606-02) with associated emission limit values.

1.1 SW2 – Condenser Cooling Water

There are no changes requested to the existing licensed emission point. The same volumetric discharge and concentration limits are to be applied in the amended licence.

Table 1-1: Compliance with Licence ELVs

Parameter	Test Frequency	Licensed Emission Limit Value	BAT	Number of non-compliances in 2019	Number of non-compliances in 2020
Temperature	Continuous	12°C above estuarine water;	N/a	None	None
		10°C (98%ile of hourly values over a year)	N/a	None	None
Chlorine	Weekly	0.3 mg/l	0.3 mg/l ^{Note 1}	None	None
Emission Volume	Continuous	33,000 m ³ /hr	N/a	None	None
		792,000 m ³ /day	N/a	None	None

Note 1: BAT for Reference Document on Best Available Techniques for Industrial Cooling systems

1.2 SW3a – Foul Water Treatment System

There are no changes requested to the existing licensed emission point. The same volumetric discharge and concentration limits are to be applied in the amended licence.

Table 1-3: Compliance with Licence ELVs

Parameter	Test Frequency	Licensed Emission Limit Value	Number of non-compliances in 2019	Number of non-compliances in 2020
pH	Daily	6 – 10	None	None
BOD	Bi-annual	25 mg/l	None	None
Suspended Solids	Bi-annual	35 mg/l	None	None
Ammonia	Bi-annual	5 mg/l as N	None	None
Total Phosphorous	Bi-annual	2 mg/l as N	None	None
Emission Volume	-	9.5 m ³ /day	None	None

1.3 SW8 – Cooling Water Screen Wash Water

The reason for a licence review is to reintroduce this emission point into the schedules. There are no changes requested to the existing licensed emission point. The same volumetric discharge and concentration limits would be applied in the amended licence, although it is acceptable to reduce the chlorine concentration from 0.5 mg/l to 0.3mg/l in line with SW2. There will be no additional impact of the reintroduction of this discharge point, as the water from this point was to be combined and discharged via SW2. Given the technical complications to redirecting this water from SW8 to SW2, it was necessary to leave it in situ.

Table 1-5: Compliance with Licence ELVs

Parameter	Test Frequency	Licensed Emission Limit Value	BAT	Number of non-compliances in 2019	Number of non-compliances in 2020
Chlorine	Quarterly	0.5 mg/l	0.3 mg/l ^{Note 1}	None	None
Volume	-	1,970 m ³ /day	N/a	None	None

Note 1: BAT for Reference Document on Best Available Techniques for Industrial Cooling systems

1.4 SW13 Process Wash Water

There are no changes requested to the existing licensed emission point. The same limits are to be applied in the amended licence.

Table 1-7: Compliance with Licence ELVs

Parameter	Test Frequency	Licensed Emission Limit Value	Number of non-compliances in 2019	Number of non-compliances in 2020
pH	Continuous	6 – 9	None	None
BOD	Monthly	20	None	None
Suspended Solids	Quarterly	30	None	None
Mineral Oil	Monthly	20	None	None
Ammonia (as N)	Quarterly	5	None	None
Phosphorous (as P)	Monthly	5	None	None

Limits for SW13 from IE Licence P0606-03 Amendment A

2. Air

There is one main emission point to atmosphere from the activity on site. This is licensed as emission point A2-1 which in normal operation fires on Natural gas. In the vent of emergency or market demands require such, the installation can change over to fire on gas oil. There are no changes requested to the emission point from the existing licence.

Table 2-1: Compliance with Licence ELVs

Parameter	Test Frequency as per licence	Licensed Emission Limit Value P0606-03 C	BAT	Number of non-compliances in 2019	Number of non-compliances in 2020
A2-1 On Natural Gas					
Oxides of Sulphur	Continuous	10	-	None	None
Nitrogen oxides	Continuous	50	55	None	None
Dust	Continuous	5	-	None	None
Carbon Monoxide	Continuous	100	5 – 30 ⁵	None	None
Emission Volume	Continuous	2,756,520	-	None	None
A2-1 On Gas Oil					
Oxides of Sulphur	Continuous	50	50 – 66 ^{3,4}	-	-
Nitrogen oxides	Continuous	90	-	-	-
Dust	Continuous	20	2 – 10 ^{3,4}	-	-
Carbon Monoxide	Continuous	100	-	-	-
Emission Volume	Continuous	2,987,280	N/a	-	-

Note 1: ELV's for NO₂ and CO shall apply only above 70% load;

Note 2: ELVs taken from IE Licence P0606-03 Amendment C;

Note 3: BATs do not apply to plants operating <1,500 hours/ year;

Note 4: Daily average result or average over the sampling period;

Note 5: Existing CCGT of ≥ 50 MWth: < 5–30 mg/Nm³. The higher end of this range will generally be 50 mg/Nm³ for plants that operate at low load.

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3. Noise

Noise has not been an issue from this installation since its commencement. There are two noise sensitive locations were are assessed annually for compliance purposes.

Table 3-1: Test Requirements

Parameter	Test Frequency	Licensed Emission Limit Value	Number of non-compliances in 2019	Number of non-compliances in 2020
Broadband Noise	Annual	55 day / 45 Night	None	None
Tonal Noise Assessment	Annual	None	None	None
Impulsive Noise Assessment	Annual	None	None	None

Table 3-2: Results of Recent Monitoring

Parameter	2018	2019	Limit	Compliance
NSL 1 Daytime	52	52	55	Compliant
NSL 1 Night Time	44	33	45	Compliant
NSL 1 Daytime	49	43	55	Compliant
NSL 1 Night Time	41	39	45	Compliant

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4. Storm water

There are five (5) storm water emission points at the installation that discharge rainwater from site to the Barrow estuary. There are no emission limits values for discharges of storm water in the current licence. One of the reasons for the application for a licence review was to include storm water emission point SW7 back onto the licence. This was originally noted as a storm water discharge line, however there was a note to cease discharging once the CCGT had commenced. This storm water line was historically passing via an engine room at the old ESB plant and was therefore given an ELV for Mineral oil. This engine room has since been decommissioned and there is no mineral oil in use of storage in this area. The storm water line is required however to discharge rain water from this side of the plant.

Table 4-1: Test Requirements Proposed

Parameter	Test Frequency	Licensed Emission Limit Value
SW1		
TPH	Amended to Monthly	N/a
Suspended Solids	Monthly	N/a
SW3b		
TPH	Amended to Monthly	N/a
Suspended Solids	Monthly	N/a
SW4		
TPH	Amended to Monthly	N/a
Suspended Solids	Monthly	N/a
SW12		
TPH	Amended to Monthly	N/a
Suspended Solids	Monthly	N/a
SW7		
TPH	Monthly	N/a
Suspended Solids	Monthly	N/a

Requirements obtained from IE Licence P0606-03 Amendment B

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