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ENVIRONMENTAL MANAGEMENT FOR BUSINESS

SURFACE WATER

MONITORING REPORT

STARRUS ECO HOLDINGS LIMITED

MATERIALS RECOVERY FACILITY

SARSFIELDCOURT

CORK

LICENCE NO. W0136-03

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1. INTRODUCTION

The monitoring programme for the Starrus Eco Holdings Limited (SEHL) installation (Sarsfieldcourt) is carried out in accordance with the conditions set in the Industrial Emissions Licence (Reg. No.W0136-03). Monitoring at the Starrus Property Holdings Ltd (SPHL) facility (Glyntown) is carried out in accordance with Permit WFP-CC-38-2020.

2. SURFACE WATER MONITORING

2.1 Location

Surface water monitoring is carried out at four locations (SW-1, SW-2, SW-3 and SW-4), SW-3 is the final discharge point from the Sarsfieldcourt installation and SW-4 is the final discharge point from the Glyntown facility to the storm sewer serving the Sarsfieldcourt Industrial Estate.

The estate's storm sewer system has two outfalls to a stream that is approximately 100 metres from the eastern boundary of the SEHL facility. SW-2 is located on the stream, to the north and upstream of the two discharge points and SW-1 is located south and downstream of the discharge points.

2.2 Methods

2.2.1 Sampling

The samples were collected by the full submergence of a sample container attached to a telescopic pole into the surface water body. Every effort was made to keep the container steady so as to prevent sediment disturbance. Field measurements of temperature, pH and electrical conductivity were recorded using a calibrated Hanna Instruments Combi pH/EC/Temp hand held meter.

The samples were stored in chilled cooler boxes to maintain temperatures below 9°C. The samples for chemical analysis were delivered to Jones within 24 hours of sampling. The samples for bacteriological analysis were delivered to Eurofins within 1 hour of sampling. Chain of custody (COC) documentation was included with the samples shipped to the laboratories.

2.2.2 Analysis

The laboratory testing methodologies were all ISO/CEN approved or equivalent and the method detection limits for all of the analyses were lower than the Emission Limit Values (ELV) and trigger levels set in the licence.

2.3 Results

In May 2018, at the request of the Agency, SEHL ceased the discharge of surface water from the installation. As a result of the fire on the 22nd February 2019 at the SPHL facility, all waste activities ceased. Due to the cessation of waste activities surface water sampling was stopped. Sampling recommenced in Q2 2021. The available monitoring results for 2021 and 2022 are included on Table 2.1 below.

Table 2.1 – Results for SW-4

Parameter	Units	June 2021	Sept 2021	Nov 2021	Feb 2022	June 2022	Sept 2022	Nov 2022	Emission Limit
pH	pH units	8.02	7.45	8.00	7.76	7.41	8.04	7.30	6.0 – 9.0
COD	mg/l	<7	16.0	<7	10	371	38	22	50
TSS	mg/l	<10	54	<10	12	112	12	<10	35
DRO	mg/l	<0.01	0.02	<0.01	<0.01	0.06	0.62	1.830	3
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	0.43	<0.01	3
Arsenic	mg/l	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.1
Cadmium	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.1
Chromium	mg/l	<0.0015	<0.0015	<0.0015	<0.0015	0.0018	<0.0015	<0.0015	0.1
Copper	mg/l	<0.007	<0.007	<0.007	<0.007	0.011	<0.007	<0.007	0.1
Iron	mg/l	<0.020	0.121	<0.020	0.082	3.555	0.085	0.024	0.1
Lead	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.1
Manganese	mg/l	<0.002	0.056	0.011	0.026	0.348	0.029	0.034	0.1
Mercury	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	0.1
Nickel	mg/l	<0.002	0.003	<0.002	<0.002	0.011	<0.002	<0.002	0.1
Zinc	mg/l	0.003	0.062	0.005	0.033	0.040	0.032	0.026	0.1

2.4 Discussion

Total and faecal coliforms have been detected in SW-3 since 2009. Waste activities ceased at the site in November 2013 following a fire. The main building was rebuilt and the facility reopened in November 2014. Surface water monitoring continued throughout the re-construction period and confirmed the persistent presence of faecal and total coliforms in the samples collected at SW-3.

In 2012 and 2014 SEHL carried out assessments of the facility drainage which concluded that there was no evidence that the elevated coliform levels were associated with foul water discharges, which was the Agency's initial concern in 2009.

At the Agency's request, the discharge from Sarsfieldcourt ceased in May 2018. The discharge from Glyntown exceeded the limit set for TSS and for iron in Q3 2021, all other parameters were below their respective limits. The discharge also exceeded the limits set for COD, TSS, iron and manganese in Q2 2022. All other results were below the emission limits.

The results for stream show that neither discharge is affecting the water quality.