

Hexion Annual Environmental Review 2020

Introduction: Permit condition 4.2.1 requires an annual report covering the previous year to include:

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the assessment of the impact of the emissions submitted with the application;
- (b) where the operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets;
- (c) the annual production /treatment data set out in schedule 5 table S5.2;
- (d) the performance parameters set out in schedule 5 table S5.3 using the forms specified in table S5.4 of that schedule; and
- (e) details of any contamination or decontamination of the site which has occurred.

Overview:

2020 was a difficult year due to the Coronavirus pandemic. The site is recognised as an essential business and stayed open throughout, with significant extra precautions in place. Our thoughts are with everyone who has been affected.

Production output was down by approximately 7% which means that year on year comparisons have to take that into account.

All emission limits on the site IPPC permit were met.

The site continued with its accreditation to the ISO14001:2015 standard and underwent 2 days of auditing from BSI.

Waste is now included in this review.

(a) Monitoring and Assessment:

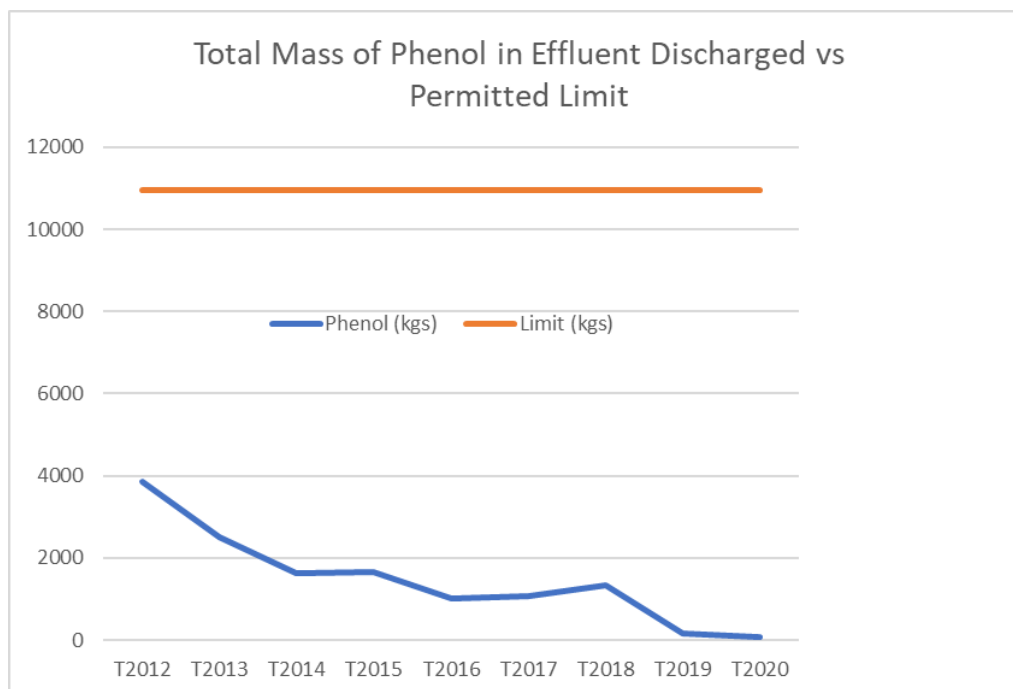
Monitoring of waterborne emissions consists of weekly composite samples from the effluent treatment plant (ETP). These were within the permitted limits throughout the year.

The graph shows that the mass of phenol discharged from the ETP in 2020 decreased by approx. 48%. This improved on the excellent results achieved in the prior year. As previously stated, some of this is due to market conditions and cannot be claimed as permanent.

Measured chemical oxygen demand (COD) also decreased by approx. 21%.

One of the three ETP treatment chambers was refurbished which improves overall operation.

Quarterly air monitoring on the scrubber and annual monitoring on the boilers gave results within the permitted limits.



(b) Targets:

Steady progress was achieved in the 2020 Environmental Targets.

Description	Progress
1 – Participate in webinars on upcoming Industrial Emissions Directive to understand effect on site and complete gap analysis	Regular attendance. Gap analysis not completed – awaiting final paper
2 – Flood Planning – Complete Site Flood Plan	Still open – more urgent due to flood event at Christmas
3 – Review site security and on-going checks for adequacy	Security increased for Covid. Fenced off old transformer site
4 – Monitoring of site utilities to ensure efficient use	Via Plant Monthly Report
5 - Zero permit exceedances	Zero permit exceedances achieved
6 - On-time measurement and reporting (2019 annual / 2020 quarterly / CIA / Pollution Inventory / Packaging Waste / Scrubber quarterly / Boiler Annual)	On time reporting achieved
7 - Internal audits – complete 2020 audit	22/31 completed (24 audits scheduled for 2021 –

cycle	the 8 missed audits will also be scheduled for 2021)
8 – 2020 External and internal audit actions – on time closure	25 actions, 7 closed, 11 overdue
9 – Continue dialogue with VoG Council re: Arsine and Phosphine planning application	Application withdrawn
10 – Training progress	Training Plan 100%
11 – Implement 4 x SIF standards	4 x SIF standards updated

The amount of water consumed per tonne of resin produced reduced from 1.88 m³/tonne to 1.68 m³/tonne. The installation of a reverse osmosis water pre-treatment system for the boilers will have contributed to this as well as a reduction in water treatment chemicals.

The energy used per tonne of product decreased by approx. 5%. This demonstrates continued good management. As previously stated, some of this is due to market conditions and cannot be claimed as permanent. Some of this improvement is attributed to further LED lighting projects (2 x substations and S11 stores)

Utility usage is monitored at a management level on a monthly basis while engineering support staff review the data more frequently.

(c) and (d) are covered by submission of the annual returns to NRW

(e) Contamination / De-contamination:

Significant waste streams will now be included together with a short commentary.

Description	Amount (tonnes)	Comments
Bio-sludge	290	An indication of how the effluent treatment plant is run. 47% decrease from prior year. As previously stated, some of this is due to market conditions and cannot be claimed as permanent
Mixed Waste	114	This is representative of general process wastes such as filter waste, contaminated PPE, lab waste, and fluctuates year on year.
Empty IBCs	37	Site processes have been improved to allow these IBCs to be sent for recycling