

Biotage Emissions Report, 2023

Form Air1: monitoring of processes A3 and A4 was last conducted in 2019 and an H1 assessment was carried out using the new data. Process A3 was a concern as emissions were above the short – term AQS limit. We have had some detailed modelling of this process carried out and this has been shared with NRW along with a plan to install suitable abatement if appropriate.

Further emissions testing is planned for w/c February 5th, 2024, having been delayed by limited availability of the testing company and ongoing refurbishment of the labs.

Form Perf1: post–pandemic recovery has been patchy in 2023. Consumption of raw materials and output has increased as demand increased for processes A2, A3, and A4, but fell noticeably for process A1. Output increased by 45% for processes A2, A3, and A4 but fell by 70% for A1. Continued efforts to reduce solvent consumption per tonne of product have seen a 23% decrease in consumption of solvent and work will continue in this area in 2024, alongside projects to increase sustainability.

Water & Energy Use: water consumption has increased by 20% this year due to an unexpected increase in the use of water–cooled condensers in one area leading to an 87% increase in the volume of water used per tonne of output. Given this high consumption, we changed to a closed–loop system with a chiller circulator instead of water, and saw the expected decrease in water consumption, from an average of 330 m³ per month to 1.7 m³ per month in Q4.

Electricity consumption has increased by 60% due to the installation of new equipment in another department and switching from gas to electricity to heat water. We are looking into monitoring electricity use in separate groups within the same building to give a better indication of the power use by the processes covered by the permit.

Gas usage is down by 25% after we stopped using gas to heat water. (NB The figure for gas consumption in 2022 has been found to be incorrect, and reported usage was given in cubic metres rather than MWh. The figure should have been 250.43 MWh). Overall, energy consumption has increased by 23% and this, despite increased output, has led to a 4% increase in MWh per tonne of product.

Hazardous waste increased in 2023 by 22%, matching the 19% increase in output, and despite the solvent reduction projects. Non–hazardous waste is up by 54%, and mixed recycling is down by 12% for the site and this reflects growth in non–chemical areas of the business. Several projects will continue in 2024 across the business aimed at reducing all types of waste while increasing the proportion of mixed recycling.



, Chemistry Production Manager