The Environmental Permitting (England and Wales) Regulations 2016

UNIT 1 2022 FUGITIVE EMISSIONS REVIEW

FOR CONVATEC LIMITED

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Fugitive Emissions Review 2022

1.0 Summary

During 2022 the environmental performance improvements made in 2018 (RTO) are still being realised through the completion of annual monitoring. Given the challenge posed by achieving net zero carbon emissions, the company is seeking to explore the opportunity to balance the environmental impact of the low release of unabated VOC vs the burning of natural gas to abate such VOC; though no progress has been made in gathering data to support any assumption yet. The site has not received any odour complaints and indeed no general complaints were received during 2022. In terms of fugitive emissions recorded; the table below explains the possible emissions known to site (outside of permitted conditions) and a review of such for 2022.

2.0 Fugitive Emission Review

Fugitive Emission	2022 Review
Emergency Vents	During 2022 there were no emergency vent activations, meaning that no fugitive emissions were released via this mechanism within the process. The RTO has a function to switch into bypass mode in various emergency / abnormal scenarios i.e., equipment failure, high temperature, high pressure, low compressed air, high levels of explosive gas / vapours, low flow, or an E-Stop being pressed. Through 2022 the RTO went into temporary bypass on 20 occasions, mainly due to spurious instrument trips, adverse weather and accidental emergency stop activations. This would of course lead to an amount of fugitive VOC emissions; however, this feature is essential to ensure the safety of the operation. Given the situations which cause the bypass feature to activate, processes are immediately and automatically shut down for safety, meaning the source of VOC emission is stopped and therefore only a very small quantity of fugitive VOC is released for a short period of time. Work is ongoing to prevent spurious activations of the bypass mode.
Process Vents	Two short releases from a process vent were reported by some contractors working in the area in July 2022. As soon as the release was reported, the process was shut down and an RCA completed. A blockage was found in the vent drain pipework which was subsequently removed, and corrective actions put in place to prevent blockage in future. The material vented was

	estimated as less than one litre of neutralised process liquor (approx 40% water / 60% industrial denatured alcohol).
Bund Breaches	During 2022 there have been no recorded bund breaches and so it is determined that fugitive emissions to water via this mechanism have not occurred. During 2022 the site upgraded its IBC storage which renewed its bunded storage capacity.
Accidental Release (Spills)	During 2022 there have been no accidental releases to ground / water through spills. Currently the site has multiple spill team members, across all shifts, all of whom underwent refresher training on 2nd and 3rd April 2019. Some additional spill response training was held on 3rd December 2021. Site still makes use of an underground diverter tank for IDA and effluent offload, as well as two envirovalve systems, one penstock system and well-maintained spill skits. Raw materials are not manually handled outside any buildings, only in the warehouse and the clean rooms. Materials are transported to the warehouse in bulk on pallets that are shrink wrapped together to prevent a spillage. During 2023, the two current envirovalve systems will be upgraded; the current systems have become obsolete in relation to parts available etc.
Hazardous Waste	During 2022 all hazardous waste has been stored appropriately in lidded / closed containers to prevent any rainwater from mixing with any remaining substance, as well as to prevent any vapours / solid particulate which may build up, being blown into / entering the atmosphere. During 2020 the site undertook a project to produce less cleaning effluent liquid. This was a success and the site now only require ad hoc collections of hazardous bulk cleaning liquid; greatly reducing the requirement for tankered liquid waste to be removed from site. Through 2022 reduction in bulk cleaning effluent waste is still being realised. All bulk liquids are stored in tanks / IBCs within bunded areas. All empty IBCs are capped to prevent drips of substances. During early 2022 a SMCA handling project has been completed, with the expected outcome being a significant reduction in hazardous solid waste generated and stored onsite – also reducing the need for transporting said waste stream.