



CABOT CARBON LTD
SULLY MOORS RD
SULLY
VALE OF GLAMORGAN
CF64 5RP

**ENVIRONMENTAL PERMIT BU2110IS
FUGITIVE EMISSIONS
ANNUAL REPORT CY2022**

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Introduction

Cabot Carbon Ltd is required to undertake an annual review of fugitive emissions at the installation in accordance with their Environmental Permit BU2110IS, requirement 4.1.4, which specifies:

"The Operator shall review fugitive emissions, having regard to the application of Best Available Techniques, on an annual basis, or such other period as shall be agreed with the Agency, and a summary report of this review shall be sent to the Agency detailing such releases and the measures taken to reduce them within 3 months of the end of such period."

The CY2022 fugitive emissions report addresses fugitive emissions from the permitted installation to air, water, and land, having regard to best available technique (BAT) and the measures taken by Cabot Carbon Ltd to reduce them. The Annual Fugitive Emissions data table is also attached for reference.

Highlights

We are pleased to report that there were no emissions of a significant or reportable nature in 2022. We have a proactive approach towards identifying and correcting minor problems, this allows for early detection of any potential drips or wisps. In 2022 there were 28 releases recorded across 11 media categories totaling 546Kg. Most spills and leaks were released to indoor areas or to small bund/containment thereby posing no pollution risk.

The two most significant releases in 2022 are detailed below:

1. HCl leak from a by-pass control valve, the leak was confined to the bunded area and brought under control immediately. The investigation into the release determined that the leak was a result of a hole in a PTFE bellows. (~300Kgs)
2. Fumed silica release from tanker loading operation, the resulting investigation determined a number of human factors to be the root cause. (~170Kgs)

Cabot continued to focus on mechanical integrity programmes and risks of corrosion under insulation. Reliability improvements implemented in 2022, with some £1.9 million in capital expenditure during the year, included projects such as:

- GB-16 Fan replacement.
- Replacement of Graphite reboiler E-58
- Replacement of the 32% HCL storage tank D-30
- PTFE pipework renewal in the acid area
- Replacement of TC-9 Venturi scrubber vessel

Cabot are committed to continuously improving our Environmental performance, during 2023 we plan to continue our focus on reliability improvements through capital expenditure with another £2 Million budgeted.

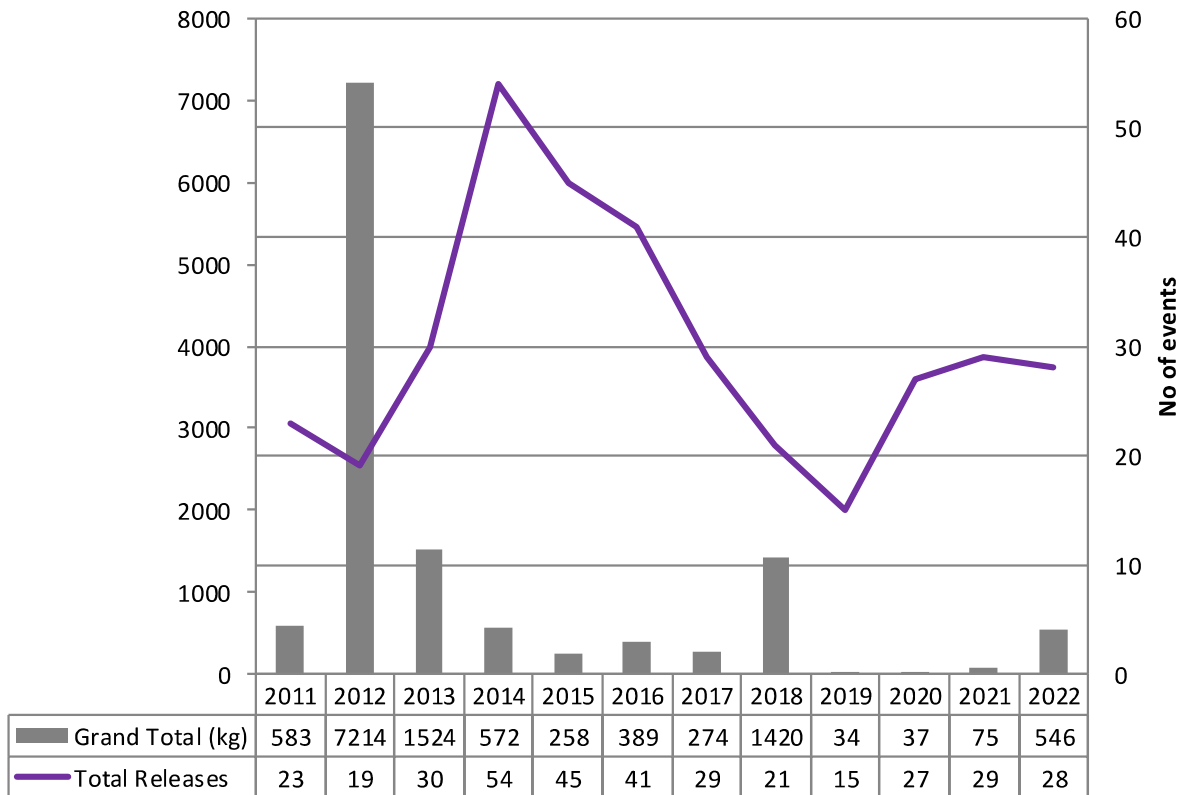
As part of our sustainability 2025 goals Cabot implemented a Process Safety Management scorecard which aims to help us achieve our goal of reducing significant process safety events by 50%. As 'loss of primary containment' is classed as a process safety event this scorecard directly impacts the continuous improvement activities aimed at reducing fugitive emissions. It contains metrics on topics like mechanical integrity, Process Safety corrective action closure, Management of Change etc. We also continue to review the content and frequency of our Environmental preventative maintenance activities to ensure suitability and effectiveness.

Operators monitor the plant routinely as part of Outside Operator duties and we are proud of our generative reporting culture, this promotes early detection and response to wisp and drip leaks and any failure modes. Details of all leaks and spills for 2022 are shown below.

Fugitive Release Breakdown

2022	Quantity KG	No.Fugitive Releases	
Ammonia	1	1	Gas
Fumed Silica	190.0	6	Solid
H2	5.0	2	Gas
HCl	27.1	8	Liquid
AHCl	300.0	1	Gas
N2	0.0	1	Gas
Natural gas	20.0	1	Gas
PDMS	0.0	1	Liquid
Suez	0.0	2	Liquid
Caustic	0.0	1	Liquid
Oil	3.00	4	Liquid
Total	546	28	

Cabot Barry Fugitive Release History



We continue with our 'Drive to Zero' philosophy. Environmental performance is a critical component of operational excellence and is carefully monitored at the Barry facility. Cabot is committed to being an industry leader and we endeavor to conduct our business in an environmentally responsible manner. There have been no other notable reported fugitive releases during the reporting period that warrant further comment.

End.

*** Cabot Barry: 12 years 3 months since last ENC (@ 30th March 2023) **