



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

**ENVIRONMENTAL PERMIT BU2110IS
FUGITIVE EMISSIONS
ANNUAL REPORT CY2021**

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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 CY2021 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 2021. During the last few years, we have placed more emphasis on site walkabouts and inspections, this proactive approach has allowed for early detection of any potential drips or wisps. As such, more minor observations were made in 2021 with 29 releases recorded across 10 media categories totaling only 75Kg. Most spills and leaks were released to indoor areas or to small bund/containment thereby posing no pollution risk.

The most significant release in 2021 was from a failed oil reservoir on an air compressor, the compressor was undergoing a service activity when the reservoir failed and released the contents inside the compressor. The spill was contained within the compressor housing and cleaned immediately.

While activity on site was reduced because of the Covid 19 pandemic, Cabot continued to focus on mechanical integrity programmes and risks of corrosion under insulation. Reliability improvements implemented in 2021, with some £1.9 million in capital expenditure during the year, included projects such as:

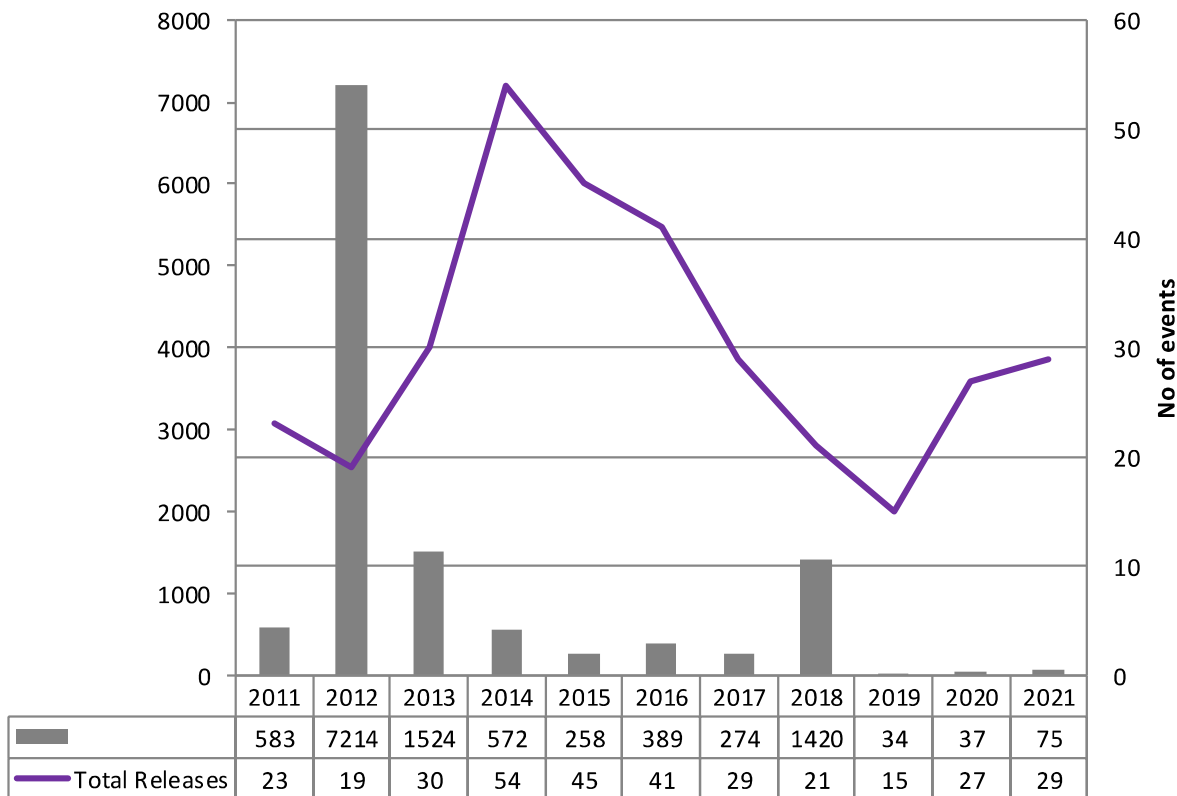
- PTFE pipework replacement, a rolling programme to reduce the risk of pipework failures continued.
- Mass Spectrometer replacement – Existing instrument at end of life, replaced before failure
- E-560 & E-52 cross exchanger replacement, exchanger at end of life and was replaced before failure.

Cabot are committed to continuously improving our Environmental performance, during 2022 we plan to continue our focus on reliability improvements through capital expenditure with another £1.6 Million budgeted. As part of our sustainability 2025 goals Cabot are implementing 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 will directly impact the continuous improvement activities aimed at reducing fugitive emissions. We also review the content and frequency of our Environmental preventative maintenance activities to ensure suitability and effectiveness. Operators continue to monitor the plant routinely as part of Outside Operator duties, this promotes early detection and response to wisp and drip leaks and any failure modes. Details of all leaks and spills for 2021 are shown below.

Fugitive Release Breakdown

2021	Quantity KG	No.Fugitive Releases	Form
AHCl	0	1	Gas
Ammonia	0.1	1	Gas
Fumed silica	14.0	4	Solid
H2	0.3	3	Gas
HCl	13.3	11	Liquid
Natural gas	1.0	1	Gas
Oil	40	4	Liquid
PDMS	5.6	4	Liquid
Sodium Hydroxide	1.0	2	Liquid
water treatment chemicals	0.05	1	Liquid
Total	75	29	

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: 11 years 3 months since last ENC (@ 30th March 2022) **