



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

**ENVIRONMENTAL PERMIT BU2110IS
FUGITIVE EMISSIONS
ANNUAL REPORT CY2018**

27.03.2019

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SHEQ Manager

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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 CY2018 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 no fugitive emissions of a significant or reportable nature in 2018. There were 21 releases in total (versus 41 in 2016 and 29 in 2017) across 8 media categories totaling only 1420g. Comparable to 2017, 70% of 2018 releases were below 1kg/1litre (and 95% below 5kg). Most spills and leaks released to indoor areas or to small bund/containment thereby posing no pollution risk.

Small spills and wisp leaks from tanker hatches during loading under the WPS canopy remain low (3 in 2018, 2 events in 2017 v 10 in 2016). There were no major silica losses from tankers which has been an issue in the past. Use of check sheets and improved tanker preparation at the haulier.

The table below shows other categories of leaks and spills, the most significant release being HCL from split 19% GRP line. The ash detectors activated as the HCL began to fume, all release contained to bund and small vapour cloud in the tank farm area damped out by deluge. The attached RCA demonstrates a prompt response, identification of root cause and corrective/preventive actions. Line replacement and a new heat exchanger (approx. £280k project) is being executed at the time of writing. Other works scheduled for our main outage in April 19. The Pipework will also fall under the strategic replacement programme, meaning it will proactively be inspected and repaired based upon our experience of PTFE lined piping systems and their expected lifetimes.

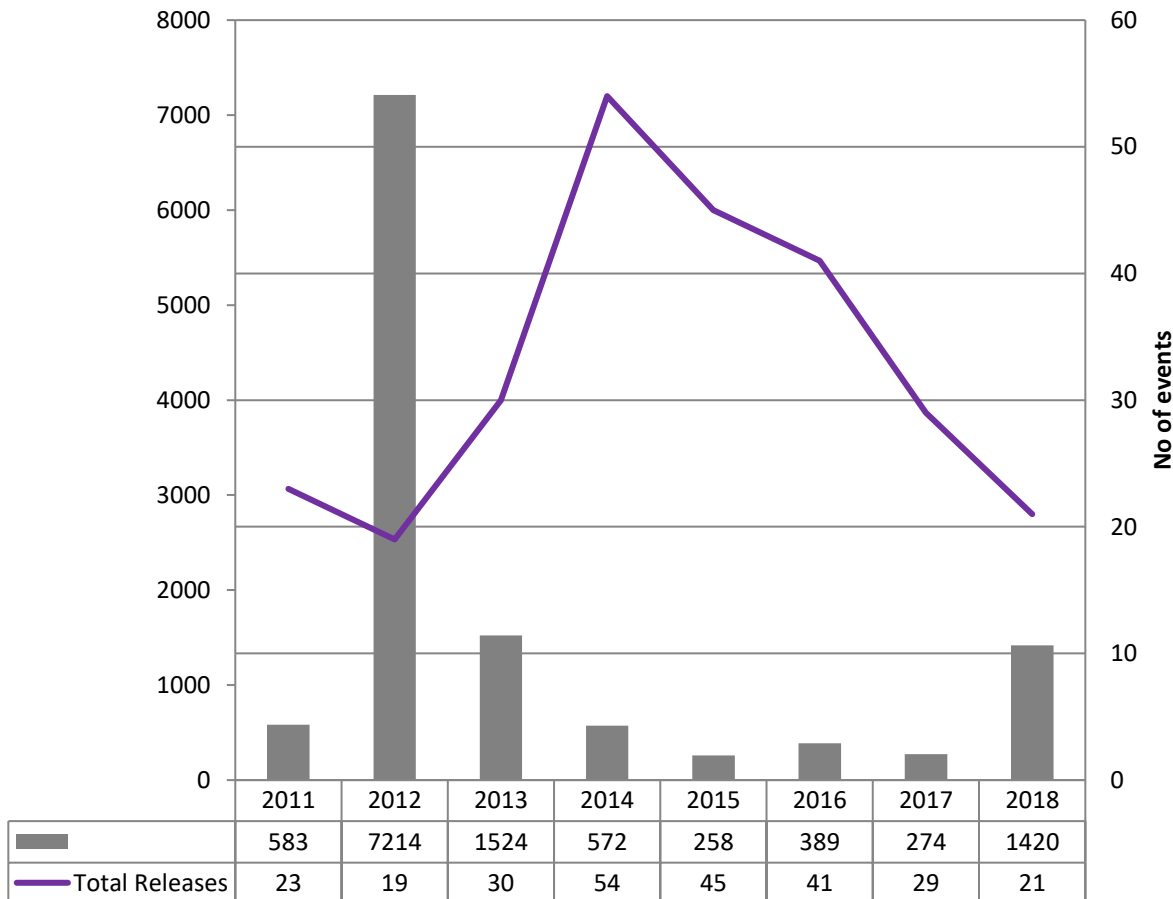
One other larger volume release (non- process plant related), was from a lorry fuel tank that split following contact with road grating section. The grating section lifted out of position when it was driven over and it struck the fuel tank under the lorry. 300-400 litres (driver estimate) spilled into a Cabot roadway gulley. Operators and contractors responded very efficiently and the spill was recovered using an air driven pump, the ground was treated with spill kit absorbent. ATEC Contractor attended site to clean out the gulley. There was no pollution risk as the liquid was contained in the gully. All gratings have since been bolted together in strips of 2 meters to prevent recurrence.

Operators continues to monitor the plant routinely as part of Outside Operator duties, this promotes early detection and response to wisp and drip leaks and failure modes in addition to a continually improving Preventive Maintenance plan. Details of all leaks, spills for 2018 are shown below

Fugitive Release Breakdown

2018	Quantity KG	No. Fugitive Releases	Form
Fumed Silica	15	7	Solid
HCL	1002	4	Liquid
Hydrogen	3.5	3	Gas
AHCL	0.2	2	Gas
Chlorosilanes	0.1	2	Liquid
oil	0.01	1	Liquid
Diesel	400	1	Liquid
Liquid N2	0.2	1	Liquid
Total	1421.	21	

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: 8 years 3 months since last ENC (@ 27th March 2019) ***