



This form will report compliance with your permit as determined by an Environment Agency officer

Site	AG Fluoropolymers, Hillhouse - EPR/BU5453IY			Permit Ref	BU5453IY		
Operator/ Permit holder	AGC CHEMICALS EUROPE LIMITED						
Date	30/12/2022			Time in	12:00	Out	12:01
What parts of the permit were assessed	Release of R22 and R125_ Reported 19 December 2022, updated on the 21 December 2022						
Assessment	Report/data review	EPR Activity:	Installation	X	Waste Op	Water Discharge	
Recipient's name/position							
Officer's name				Date issued	23/02/2023		

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations (EPR). A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our [Compliance Classification Scheme](#) (CCS). CCS scores can be consolidated or suspended, where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your [local office](#).

Permit Conditions and Compliance Summary			Condition(s) breached
a) Permitted activities	1. Specified by permit	N	
b) Infrastructure	1. Engineering for prevention & control of pollution	N	
	2. Closure & decommissioning	N	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	N	
c) General management	1. Staff competency/ training	N	
	2. Management system & operating procedures	C3	1.1.1;
	3. Materials acceptance	N	
	4. Storage handling, labelling, segregation	N	
d) Incident management	1. Site security	N	
	2. Accident, emergency & incident planning	N	
e) Emissions	1. Air	C3	3.1.2;
	2. Land & Groundwater	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	1. Odour	N	
	2. Noise	N	
	3. Dust/fibres/particulates & litter	N	
	4. Pests, birds & scavengers	N	
	5. Deposits on road	N	
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment	N	
	2. Records of activity, site diary, journal & events	N	
	3. Maintenance records	N	
	4. Reporting & notification	N	
h) Resource efficiency	1. Efficient use of raw materials	N	
	2. Energy	N	

KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk),

A = Assessed (no evidence of non-compliance), N = Not assessed, NA = Not Applicable, O = Ongoing non-compliance – not scored

MSA, MSB, TCM = Management System condition A, Management System Condition B and Technically Competent Manager condition which are environmental permit conditions from Part 3 of schedule9 EPR (see notes in Section 5/6).

Number of breaches recorded	2	Total compliance score (see section 5 for scoring scheme)	8
If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response			

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training, combustion plant, etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- information on the compliance score accrued inc. details of suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

The Incident

The company notified us on the 19 December 2022, updated on the 21 December 2022 that there had been a breach of emission limits from low boiler A1.

The company provided a very thorough investigation of the matter and followed this up in a meeting in February 2023. In summary, the weekly average results for R22 (chlorodifluoromethane) was 458g/hour and R125 (pentafluoroethane) 280.3g/hour. On the 16 December 2022 the emissions from A1 were within the permitted limits. The schedule 3 limit is 100g/hour, for a period of stable operation, at a weekly frequency.

Assessment of the Release to Air (3.1.2)

R22 is an ozone depleting substance and a gas that contributes to climate change; R125 contributes to climate change. The emissions are above the limits allowed by the permit and are non-trivial. The harm caused by both gases is not harm to human health, therefore the total cumulative mass, rather than the weekly release is of more significance. However the company demonstrated in a meeting in February 2023 that the annual mass, if averaged out was well below the permitted limits. This does add some context to my decision as to the seriousness of this incident. Nevertheless, it is a breach of the permit limit and may have been avoided.

Condition 3.1.2 states that the limits in schedule 3 shall not be exceeded. The company have exceeded the limits and therefore breached the permit. I consider this to be a minor non-compliance and therefore have scored a CCS3.

Assessment of the Management Systems (1.1.1)

Condition 1.1.1 states that the operators shall manage and operate the activities in accordance with a written management system that identifies and minimises risks of pollution [...]

The incident occurred during a very cold snap in December 2022. While this was very cold it was not unprecedented and similar temperatures occurred in 2010/11. Also, climate change is predicted to give more extreme weather in the UK.

In this instance, the company management systems were not sufficiently robust to identify and manage the associated risks of very cold weather and therefore the company has not complied with condition 1.1.1. For the record, I have also treat the incident of 19 December 2022 in this report as pertinent and deal with it here.

I consider that the company did not comply with condition 1.1.1 and this is a minor breach of the permit. For this reason I have scored a minor non-compliance as CCS3.

Action: I have asked the company to start to consider resilience for climate change. I have notified the company of our intention to carry out some sort of audit or compliance work around this in 2023.

This report was written in February 2023, although the incident occurred in December 2022

Report Summary from AGC

The environmental permit limit for both Chlorodifluoromethane (R22) and Pentafluoroethane (R125) for emission point A1 Low Boiler Stack is 100g/hr (weekly average).

During the week commencing 12 December 2022 the weekly R22 and R125 average for the Low Boiler Stack was exceeded due to a higher than normal result on the 16 December.

This resulted in the weekly average results being:

- 458.0 g/hour for R22
- 280.3 g/hour for R125

All other daily R22 and R125 results for the Low Boiler Stack, for the w/c 12 December were within environmental permit limits

On the 15 December there had been issues with freezing.

Steam is used to control the temperature of the distillation columns. Due to the extreme cold weather, it is believed condensate in the instrument impulse line to the steam supply instruments froze, this resulted in abnormal steam supply rates and insufficient heating was provided to the distillation column (2A still).

The impulse lines associated with the steam flow control to 2A still are in an open area of the plant

The insufficient heating of the distillation column led to excess impurities being fed forward (including R22 and R125) causing abnormal operating conditions and increasing levels of R22 and R125 being discharged to the low boiler stack.

During the extreme cold weather, the AGCCE operations team worked to ensure temperature control within the distillation process was maintained.

Once the problem with 2A still the steam flow was identified this impulse line was defrosted and 2A still temperature brought back up to normal levels. Following this, normal operating conditions were established preventing further abnormal emissions.

Since the breach on 16 December the Low Boiler Stack has demonstrated results within environmental permit limits.

Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission

In addition to this the lagging around the impulse lines will be reviewed to ensure this is sufficient to prevent further issues associated with freezing condensate in impulse lines.

The weekly average R22 and R125 for the Low Boiler Stack have been within permitted limits as follows:

w/c 19 December

- 26.2 g/hour for R22
- 0 g/hour for R125

w/c 26 December

- 0 g/hour for R22
- 0 g/hour for R125

w/c 02 January

- 6.5 g/hour for R22
- 0 g/hour for R125

w/c 09 January

- 0 g/hour for R22

- 0 g/hour for R125

Section 3- Enforcement Response

Only one of the boxes below should be ticked

You must take immediate action to rectify any non-compliance and prevent repetition.

Non-compliance with your permit conditions constitutes an offence* and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

**Non-compliance with MSA, MSB & TCM do not constitute an offence but can result in the service of a compliance, suspension and/or revocation notice.*

Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.

In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.

X

We will now consider what enforcement action is appropriate and notify you, referencing this form.

Section 4- Action(s)

Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

Criteria Ref.	CCS Category	Action Required / Advised	Due Date
See Section 1 above			
C2	C3	No action specified	N/A
E1	C3	No action specified	N/A

Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence* and we may take legal action against you.

● We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.

● Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.

● A civil sanction Enforcement Undertaking (EU) offer may also be available to you as an alternative enforcement response for this/these offence(s).

See our Enforcement and Civil Sanctions guidance for further information

A breach of permit condition **MSA, **MSB** & **TCM** is not an offence but may result in the service of a notice requiring compliance and/or suspension or revocation of the permit.*

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance which could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

Operational Risk Appraisal (Opra) - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

MSA, MSB & TCM are conditions inserted into certain permits by Schedule 9 Part 3 EPR

MSA requires operators to manage and operate in accordance with a written management system that identifies and minimises risks of pollution.

MSB requires that the management system must be reviewed, kept up-to-date and a written record kept of this.

TCM requires the submission of technical competence information.

Section 6 – General Information

Data protection notice

The information on this form will be processed by the Environment Agency to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The Environment Agency will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within 28 days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

A permit holder can challenge any part of the CAR form by writing to the Environment Agency office local to the site within 28 days of receipt. If the issue cannot be resolved by the local office, a permit holder can raise a dispute through our official [complaints procedure](#).

If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the [Parliamentary and Health Service Ombudsman](#), phone their helpline on 0345 015 4033.