

Compliance Assessment Report CAR_NRW0039465

Permit being assessed: AB3894ZF.

For: Purolite, held by Purolite Limited

At: Purolite International Ltd, Unit C, Llantrisant Business Park, Llantrisant, Pontyclun, Rhondda Cynon Taf, CF72 8LF.

Type of assessment carried out: Site Inspection, Reason: Routine.

On 16/02/2022 between 13:00 and 15:00.

Parts of permit assessed: Activities

NRW Lead Officer: Mostyn Wall, accompanied by Andi Kemp, Kelly Sherratt.

Report sent to: Duncan Sinclair, Plant Manager on 24/02/2022.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
C2 - General Management - Management system and operating procedures	C3 Minor	2.3.1
B4 - Infrastructure - Containment of stored materials	C3 Minor	2.1.1
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Action only (X)	

Result types are explained in more detail in the 'Important Information' section below.

Total number of non-compliances recorded	Total non-compliance score
2	8

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
C2	- Send in permit variation for Unit C - As part of the permit variation for Unit C the site must also send in the improvement condition revised H1 modelling as outlined in CAR form AB3894ZF_NRW0036476 Mar 2020	01/04/2022
B4	- Site to send in the details of what chemicals are stored at the IBC area. The site needs to identify if mixing of any of the contents within the IBCs could lead to further problems or accidents. - Site to send in the spill and accident plan for the storage, loading and unloading of IBC's.	21/03/2022

Criteria	Action needed	Complete by
	- Ensure that the spill kit contains a drain cover - Ensure that staff and suppliers know the correct work procedures for chemical storage and delivery, the EMS documents outlining the environmental risk of the IBC's and spill procedure.	
G1	Ensure that the sample port for the bromine stack meets the criteria for port location as outlined in BSEN15259 Air Quality – Measurement of stationary source emissions. This requires the sampling plane to be located five hydraulic diameters from the top of a stack. Ensure that this information is included in the permit variation	01/04/2022

Action criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

NRW visited Purolite on the 16th February 2022. The aim of the visit was to discuss the permit variation of the installation, for a site tour to inspect the new bromide process, see the status of Unit D and the construction of the new tank farm. Mostyn Wall, Andi Kemp and Kelly Sherratt were present from NRW. Duncan Sinclair (plant manager) and Mark Thomas (operations director) represented Purolite. Karen Hardy represented Ramboll who are involved in the permit variation process.

Permit Variation Timeline

Purolite presented a timeline showing the permit variations planned for the site. The bromine addition permit variation for Unit C will be sent in during Q1 of 2022. Once the permit variation for Unit C is complete the site will send in a second permit variation to expand the footprint of the site to include the warehouse, new tank farm and Unit D where the new jetting manufacturing will be based. The site is to consider if a multiple product protocol (MPP) is needed in the new permit variation. A MPP can be useful to allow a reasonable degree of business flexibility for the operator with frequently changing production or new products.

Non-compliance Score: The site has been operating the Bromide process in without a permit variation. The site has installed a Bromine tank, scrubber, and stack. A permit variation is needed as these activities were not assessed in the original permit variation.

This is classified as a category 3 non-compliance with minor or minimal impact or effect on the environment.

The site is reminded to notify NRW of any plans for changes at the installation that could result in a new addition or variation to the scheduled activities list in Schedule 1 in the permit.

Actions:

- Send in permit variation for Unit C
- As part of the permit variation for Unit C the site must also send in the improvement condition revised H1 modelling as outlined in CAR form AB3894ZF_NRW0036476 Mar 2020

After an inspection of the bromide process and a site tour, NRW acknowledges that the site is competent at operating the new bromine process and that the overall environmental risk is low. The site can continue to operate the bromide process while NRW awaits the permit variation documentation.

However, any incident or pollution relating to the bromine process before the permit variation is complete will be scored as a non-compliance of the permit.

Unit D permit variation.

The permit variation for the whole site and the new manufacturing at Unit D will be sent in once the permit variation for Unit C is complete. Manufacturing of product at Unit D cannot commence until the permit for Unit D is granted.

Site tour

A site tour was undertaken on the 16.02.2022 to see the construction of the new jetting manufacturing area in Unit D. The manufacturing area is very similar to the currently permitted Unit C however the process uses significantly less water and energy. Compared to the process in Unit C the jetting technology to be used in Unit D can save 81% water, 80% CO2 and 92% saving in solvents in one year. Vessels used to manufacture the resins are mobile and can be moved using forklift trucks from Unit D to Unit C. Some vessels have caster legs and are connected using flexible housing allowing them to be moved easily within the manufacturing area. NRW are impressed by the overall working practices at the installation and the growth potential for the business. This is very positive for the local community and Purolite is leading the way in reducing energy use and raw materials.

Tank farm

The tank farm is under construction. The tanks are in place and the bunding wall is currently being cast. A new car parking area is being created behind the tank farm and a new hedge will be planted once the construction is complete.

IBC area Unit D

An IBC storage area is located at the western end of Unit D. The IBCs are located in a covered shed but due to construction work the IBC's are stacked outside the building on a metal rack. Only some of the IBC's were sat on spill tray and the area was not bunded. Any leakages or damage to the IBC's will result in chemicals being discharged into the sewer and is a high risk to the environment. For example, damage could occur during moving the IBC's and puncturing with a fork-lift arm. A spill kit was located adjacent to the IBC area, but it did not contain a drain hole cover that would prevent chemicals entering the drain.

The IBC area sits outside the permitted area of Unit C and is located within Unit D. However, the two Units are linked and NRW takes the approach that best practice and regulation should be site wide.

Non-compliance Score: The stacking of the IBC's and the lack of appropriate spill kit is considered to have a minor environmental risk as is classified as a category 3 non-compliance.

Actions:

- Site to send in the details of what chemicals are stored at the IBC area. The site needs to identify if mixing of any of the contents within the IBCs could lead to further problems or accidents.
- Site to send in the spill and accident plan for the storage, loading and unloading of IBC's.
- Ensure that the spill kit contains a drain cover
- Ensure that staff and suppliers know the correct work procedures for chemical storage and delivery, the EMS documents outlining the environmental risk of the IBC's and spill procedure.

Bromine process.

The site has been operating a Bromine addition to the production in Unit C in 2021. The bromine tank is in the building at the northern end of the Unit C tank farm. The bromine tank sits in a bunded area and the pipe work is designed so that no bromine is left in the pipework, gravity drainage drains bromine back into the tank when not in use. Bromine is delivered in a special tank by the suppliers are in removed from the room by a forklift. Only a limited amount of bromine is held in the tank and the process is only occasionally used to make a specific product. This demonstrates that the potential amount of bromine/bromine compounds released would be very low and occasional and overall has a low risk. The building has a sealed rolling door.

The bromine scrubber and stack are located opposite the building adjacent to Unit C. The stack has a sample port near the top.

As part of the permit variation the site will be providing bromine monitoring data to assess the emissions from the stack and the potential impact on the environment. NRW will assess the concentration of bromine from the monitoring and modelling data to the environmental assessment level hourly limit of 70 micrograms per cubic metre (ug/m3).

Action. Ensure that the sample port for the bromine stack meets the criteria for port location as outlined in BSEN15259 Air Quality – Measurement of stationary source emissions. This requires the sampling plane to be located five hydraulic diameters from the top of a stack. Ensure that this information is included in the permit variation.

End.

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

What are suspended scores?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry and Waste action criteria (used in section 1 and 2):

A: Permitted activities

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response

Any permit condition non-compliance is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or 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
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within 20 working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 – 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.