

Compliance Assessment Report CAR_NRW0040363

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: Audit, Reason: Routine.

On 25/08/2022 between 10:00 and 12:30.

Parts of permit assessed: Site storage and activities

NRW Lead Officer: Mostyn Wall.

Report sent to: Emma Manning, HSE Manager on 08/09/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
B4 - Infrastructure - Containment of stored materials	C3 Minor	3.2.3
C2 - General Management - Management system and operating procedures	C3 Minor	1.1.1
B5 - Infrastructure - Plant and equipment	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
B4	<p>Use the guidance below so ensure that all materials are stored correctly at Purolite to meet the best available techniques (BAT) requirements. Purolite to report back to NRW their plans for storage at the unit D yard to comply with the permit and BAT. "All storage tanks are contained within a bund complying with CIRIA C736 and in an area with sealed drainage (Table S1.1)."</p> <p>CIRA 376: Containment systems for the prevention of pollution. To ensure that all materials are stored correctly and is BAT. Design of containment systems for the prevention of water pollution from industrial incidents (ciria.org)</p> <p>GPP 26: Safe storage of Drums and Intermediate Bulk Containers. gpp-26-safe-storage-of-drums-and-ibcs.pdf</p>	07/10/2022

Criteria	Action needed	Complete by
	(netregs.org.uk) HSE guidance HSG71: Chemical warehousing: The storage of packaged dangerous substances – shows what chemicals should be separated when stored. Chemical warehousing: The storage of packaged dangerous substances - HSG71 (hse.gov.uk) HSE guidance HSG51: Storage of flammable liquids in containers and HSE guidance HSG140: Safe use and handling of flammable liquids; to ensure that BAT is used for the storage, separation, movement and use of flammable liquids at Purolite. Safe use and handling of flammable liquids - HSG140 (hse.gov.uk) The storage of flammable liquids in containers - HSG51 (hse.gov.uk)	
C2	Purolite to update the IBC stock procedure document to ensure that all IBC valve types and closing pins are documented in the SOP	07/10/2022
B5	Provide map of where the storm water drain network is connected to the installation	07/10/2022

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

IBC spillage

On the 22nd of July NRW was notified by Purolite of an IBC spillage of approximately 200L of 0.25 M NaOH. The NaOH spilled from an open IBC valve into the storm water drain located in the middle of the Unit D warehouse yard and into the DCWW sewer network. At the time of the incident the IBC was not stored in a bunded storage shelf. The IBC was stored on a steel non-bunded rack in the centre of the yard next to Unit D.

The initial leak from the open IBC valve was observed at 9:30am by a Purolite employee. The leak was not reported, and the valves was not closed. At 12:15 another operator noticed a flow of white lines leading down into the storm drain. The spill was then reported to the shift manager who initiated the spill response team to apply spill mats, booms, and a drain cover. Only 1 drain cover was available for the 2 storm drains located in the centre of the yard, so a boom was used to stop liquid entering the adjacent drain.

Root cause of the spill

The root cause of the spill is human error and not closing the IBC valve and reporting of the spill at 9:30 am. At the time of the incident the absence of a standard operating procedure for securing the IBC valve properly in a closed position contributed to the incident. Storage of IBC's in a non-bunded area allowed the spill to enter the storm water drain.

Site visit 25.08.2022

Mostyn Wall visited Purolite to discuss the IBC spill, inspect the warehouse yard and to meet Emma Manning, the new HSE manager at Purolite. A discussion was held about the spill and Purolite improvements made at the site.

A walk around of the Unit D yard showed the clear improvements since the last inspection on the 16th February 2022. The majority of the IBC's are now stored on bunded racks that would contain any spill or leaks. Separate bunded and locked IBC storage contained flammable material and waste products.

However, in the covered shed storage area, IBC's and barrels were stored on non-bunded racks. Flammable contents were also stored in the covered shed and not in the flammable bunded storage area. Flammable contents were also not isolated or grouped together. Purolite commented that they plan to separate materials for better stock control and fire prevention. Purolite also commented that the bunded IBC racks outside the shed will move into the shed and replace non-bunded metal racking.

The spill kits were inspected. Purolite now has multiple (4+) drain covers and have spill kits/drain covers stored on the forklift trucks for quick response to spills while using the IBC's.

The storm drain is in the middle of the warehouse yard and any spillage will move towards the drain. This is an inherent risk that should either be removed or mitigated. All storage must be bunded and follow the CIRIA, GPP and HSE guidance.

Since the incident Purolite have put in place an IBC stock procedure (standard operating procedure, SOP) to ensure that the IBC's are stored correctly and that the valves of the IBCs are closed. The SOP document has photo's showing the closed position of an IBC valve. However, the IBC valve image is only of one type of IBC valve and closing pin seen in the yard. **Action:** Purolite to update document to ensure that all IBC valve types and closing pins are documented in the SOP.

Non-compliances.

- The fugitive release of NAOH to the storm water drain is a category 3 non-compliance as this could potentially cause harm to the environment.
- IBC storage. Poor storage of chemicals in Unit D warehouse yard. Flammable material should be kept separate and isolated. Non-bunded storage of barrels. The incorrect storage of the IBCs and barrels is a Category 3 non-compliance.

The fugitive release and incorrectly stored materials non-compliance is consolidated into one category 3 non-compliance. Section 3.2.3 of the permit states that *"All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container"*. Incorrect storage and containment were observed on both the 16th of February and on the 25th of August 2022 inspections. Any future non-compliance for

incorrect storage and segregation of materials could be elevated due to repeat failings.

- Poor training and lack of an SOP for IBC movement and storage. The absence of a standard operating procedure for IBC movement and handling at the time of the IBC spill incident is a category 3 non-compliance. Poor staff awareness led to the IBC spill not being addressed

Actions

Use the guidance below so ensure that all materials are stored correctly at Purolite to meet the best available techniques (BAT) requirements.

Purolite to report back to NRW their plans for storage at the unit D yard to comply with the permit and BAT. *“All storage tanks are contained within a bund complying with CIRIA C736 and in an area with sealed drainage (Table S1.1).”*

- CIRIA 376: Containment systems for the prevention of pollution. To ensure that all materials are stored correctly and is BAT. [Design of containment systems for the prevention of water pollution from industrial incidents \(ciria.org\)](https://www.ciria.org/Design-of-containment-systems-for-the-prevention-of-water-pollution-from-industrial-incidents)
- GPP 26: Safe storage of Drums and Intermediate Bulk Containers. [gpp-26-safe-storage-of-drums-and-ibcs.pdf \(netregs.org.uk\)](https://www.netregs.org.uk/gpp-26-safe-storage-of-drums-and-ibcs.pdf)
- HSE guidance HSG71: Chemical warehousing: The storage of packaged dangerous substances – shows what chemicals should be separated when stored. [Chemical warehousing: The storage of packaged dangerous substances - HSG71 \(hse.gov.uk\)](https://www.hse.gov.uk/chemical-warehousing-the-storage-of-packaged-dangerous-substances-hsg71)
- HSE guidance HSG51: Storage of flammable liquids in containers and HSE guidance HSG140: Safe use and handling of flammable liquids; to ensure that BAT is used for the storage, separation, movement and use of flammable liquids at Purolite. [Safe use and handling of flammable liquids - HSG140 \(hse.gov.uk\)](https://www.hse.gov.uk/safe-use-and-handling-of-flammable-liquids-hsg140) [The storage of flammable liquids in containers - HSG51 \(hse.gov.uk\)](https://www.hse.gov.uk/the-storage-of-flammable-liquids-in-containers-hsg51)

Purolite to update document to ensure that all IBC valve types and closing pins are documented in the SOP.

Provide map of where the storm water drain network connected to the site.

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.