

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

Site	Newport Chemical Complex	Permit Ref	BR97151B		
Operator/Permit holder	Solutia UK Ltd				
Regime	Installations				
Date of assessment	05/12/2019	Time in	13:00	Out	16:00
Assessment type	Report/Data Review				
Parts of the permit assessed	ICs, NOx emissions				
Lead officer's name	Kemp, Andi				
Accompanied by	Richards, Gareth (Rivers House)				
Recipient's name/position	Stephen Thomas/ Environmental Specialist	Date issued	12/12/2019		

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). 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	CCS Category	Condition(s) breached
A1 - Specified by permit	A	
B4 - Infrastructure - Containment of stored materials	A	
C2 - General Management - Management system and operating procedures	A	
C4 - General Management - Storage, handling labelling and Segregation	A	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	A	

KEY: See Section 5 for breach categories, suspended scores will be indicated as such.

A = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,

O = Ongoing non-compliance, not scored.

Number of breaches recorded	0	Total compliance score (see section 5 for scoring scheme)	0
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If the Number of breaches recorded is greater than zero, please see Section 3 for 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 (eg. 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 advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

Compliance Assessment Report Form: Eastman Chemicals: EPR/BR97511B – 6th December 2019

Purpose of Compliance Assessment

This compliance assessment covers the following aspects:

- Actions, recommendations and notification actions from the previous CAR1 (25th Sep. 2019)
- Improvement Conditions Update
- Meeting and inspection from 1st Oct. 2019
- Meeting and inspection from 5th Dec. 2019

- Notifications post CAR1 25th Sep. 2019
- Latest routine submissions: Jan. – Sep. 2019

Lastly, this was the first site visit (under EPR) for the South East Industry Regulatory Officer, Dr Gareth Richards, who is taking over from AK (now in South Central Industry Regulation team). COMAH regulation will be retained by AK as part of the COMAH CA and RSR will remain with GR, who currently inspects under that regime.

Actions, recommendations and notification actions from the previous CAR1 (25th Sep. 2019)

The TH2 release of benzene (Part A 16th July 2019), this was discussed in more detail on 1st Oct. 2019. NRW also noticed the process safety bulletin on the staff notice board opposite the control room during the site meeting on 5th Dec. 2019. This is not considered an EPR non compliance at this time, under these conditions and NRW is satisfied that the operator has carried out the appropriate actions to prevent this

happening again – arguably this is more of a COMAH potential issue. On that note AK recommended the operator communicate this to the HSE.

Previously notified (Part A 1st Aug. 2019) was a release of benzene and polyphenyls to impermeable surface and ultimately the catchment tank. A Part B has not yet been received (requested by email 6th Dec. 2019). A leak from a gasket caused the release. Fortunately the site is engineered with impermeable surfaces, kerbing and a catchment tank, with hydrocarbon detector. This tank held the contents. What NRW expects in the Part B response are details on how the catch tank detector functioned and where this is visible, what was the cause of the gasket failure and what happened to the contents in the catch tank. This is not considered a permit non compliance.

Action 1 Eastman 6th December 2019: *Can you provide the Part B response to the original notification and address the points raised in last sentence above. Due: 17th Jan. 2020*

There is a current Part B notification for PCP releases and exceeding the limit in the effluent. In the Mar. 2019 CAR1 non compliances were raised for PCP exceedances. No additional non compliances will be applied for PCP exceedances in effluent until after 31st Mar. 2020. This will give time for the actions taken (reed beds) as part of IC33 to have had effect. Beyond Mar. 2020, non compliances of notifications of PCP exceedances will be applied – a suggestion was made that exceedances be scored once every 6 month period there is a notification. It is hoped that the reed bed system will reduce the PCP levels to below permitted limits.

There is also an ongoing “open” notification for NOx exceedances at the TH3 pyrolysis furnaces – and as stated on the 5th Dec. by ST, TH2 pyrolysis furnace is also exceeding – but due an upgrade to reduce NOx. IC35 is seeking to address this and the NOx impact assessment (aggregated NOx emissions across site), submitted as part of the 2018 variation application, demonstrates that the NOx emissions are not a threat to ambient air or terrestrial EQSs. So, a balance has to be made about the lead time to furnace improvements, against the seemingly favourable aggregated NOx impact. Slippage against the timelines for improvements would likely result in further non compliances.

There were no actions or recommendations from the CAR1 25th Sep. 2019. All previous NRW actions have been completed by the operator.

Improvement Conditions Update – Only Open Items

IC33 is complete and now formally signed off – refer to earlier CAR1s and the design and testing documents of the PCP reed bed treatment process on NRW files. Obviously compliance with PCP limits will be expected on an ongoing basis. **IC33 Closed.**

IC34 – aerial emission points review – extended until **31st Jan. 2020**. ST has identified potential points that may need limits and certainly to be included in the permit.

IC35 – Investigate emissions from TH3 pyrolysis furnaces (A26 and A27) with a view to reach compliance with the 200 mg/m³ NOx. TH2 emissions are also currently not compliant. The response was received on 29th November 2019 (extended until 1st Dec. 2019). The operator has stated that the lead time for the improved low NOx burners means essentially TH2 will be refitted in Q2 2020 and TH3 (x2) in Q3 2021. TH2 has different burners to TH3 and due to age will be refitted. These identified improvements, which are really to address TH3, have come out of various testing and research into technology, where pilot trials were conducted in actual furnace conditions. Prior to this the operator tried on plant modifications varying pre-heat air temperature, hydrogen injection, water and steam injection. These either failed or severely impacted on energy consumption and reduced production. The capital expenditure projects for both TH2 and TH3 programmes have been approved. Commissioning of TH2 will take place first and if successful, will be rolled out to TH3 – given the high up front capital cost this seems sensible. The submission revealed NOx emissions from the furnace trials of between 90 – 100 mg/m³. These improvement submissions can be accepted as completing IC35. Failure to deliver the improvements either on time or failure to meet ELVs post improvements would lead to non compliances and potential further enforcement action. **IC35 closed.**

IC36 – NOx emissions from main boiler and economising boiler – extended until 1st Dec. 2019. NRW requires the recent test results. **IC36 extended until 17th Jan. 2020.**

Meeting and inspection from 1st Oct. 2019

The October meeting and inspection was really to discuss the previous CAR1 and notifications and get a progress update on the ICs. These are some of the items requiring attention:

1. Graphs from IC33 reed bed project showing PCP reduction over the time period it has been operating.
2. T72 changes and possible NOx from TH2 biphenyl column (A24) – need written description of your intentions.
3. T66 from autoclave into day tank, with Di-isopropylbenzene being fed from IBC. Require written proposals of what and why and what pollution prevention precaution measures are being taken.

Meeting and inspection from 5th Dec. 2019

This was primarily to catch up on ICs and introduce the new Regulatory Officer to the physical site layout and processes – to complement the desk based handover completed previously. These items need following up:

1. What was the alarm beacon near the autoclave unit on TH3 – was it visible in the control room?
2. Brief details of the hydrocarbon detector in the TH3 sump and the proposal for a detector on the surface water tank – are these visible in the control room?
3. Some way of visibly identifying the W1 / W2 bypass configuration – this could comprise labelling the pipes with W1 / W2 and flow direction, valve position indication so it is evident on site that all flow is via W1 and finally a process flow schematic that shows in detail the flow and bypass arrangement. **Action: Response by 20th December 2019.**

The conditions in which the W1 effluent autosampler is stored needs looking at and improved – to ensure sample preservation. Additionally some assessment of the sampler withdrawing aliquots from the south lagoon needs to be made to demonstrate it takes a representative sample of effluent.

The daily storage of IBCs within the new locations and management rules (for toxic and aquatic toxicity substances) still appears to be being adhered to.

The reed bed system is withdrawing water from the PCP contaminated GW in the former Santobrite area. The pipes are trace heated and currently the treated water is being recharged back into ground – this aims to reduce or prevent exceeding both concentration and mass release limits.

ST talked briefly about using waste heat from the cooling water and condensate circuit / sumps – this could be very beneficial and needs following up. The boiler and economiser configuration was seen and the process flow / data mimic was looked at and this demonstrated the reduction in natural gas consumption and CO₂ emissions – the operator is commended for exploring and implementing such initiatives. ST also mentioned that thoughts are being directed towards the steam vent on the S2075 process and feasibility of capturing that waste heat / energy.

Although not subject to EPR, but could have a bearing on Eastmans Site Condition Report – the recent improvements installed by AES for oil off load, storage and feed into their process, were examined and appeared to be robust. The only thing AK didn't verify, but perhaps ST could, was whether there is a level gauge or sight glass on the self banded temporary oil tank.

As a follow up to recent enquiries into whether Eastman Newport site have registered PCB contaminated equipment on site, NRW requires the recent test results from the sampling of 23 pieces of equipment.

Action 2 Eastman 6th December 2019: *Can you provide the test results from the oil sampling of the 23 transformers etc. Due: 31st December 2019*

Notifications post CAR1 25th Sep. 2019

The following notifications have been submitted by the operator since the last CAR1 of 25th Sep. 2019.

6th Oct. 2019 – TH3 benzene column condenser joint. This resulted in around 20 kg of benzene being released to air and some solid deposits. This occurred on restart after a maintenance activity. The release was identified via operator routine start up checks. This event does not have the potential for significant environmental harm – this is based on the source of the leak and therefore the amount that could have been released, supported by the routine start up checks that are in place to identify and rectify exactly such situations. This is not considered a permit non compliance. **The Part B is still required, which should be sign and dated correctly.**

An exceedance of the weekly PCP mass release was notified for w/e 8th Oct. 2019. The mass released was 327 g/w versus an ELV of 250 g/w. As stated above no further non compliances will be raised for PCP exceedances in surface water against the ELVs, until after 31st Mar. 2020 – this should give some time for the reed bed system to have reduced the PCP levels in the contaminated former Santobrite area. This event followed significant rainfall and this is typically the situation that leads to PCP seeping into the drains and entering the effluent system. **Still notify exceedances on Part A forms and provide Part B at the end of Mar 2020. From then on non compliances can be raised every 6 months and in this case raise a Part A at the incident time, with additional Part As as necessary, until another 6 month period has elapsed, then close with a Part B. The new Regulatory Officer may review and change this process in the light of increasing trend of exceedances or other relevant factors.**

Latest routine submissions: Jan. – Sep. 2019

The permit requires submission every quarter of emissions to W1 (and W2 if the criteria are met – extreme flooding). The monitoring basis and ELVs are stipulated in Table S3.3 of the permit.

Three quarters are assessed here, following on from the last batch of submissions assessed – up to and including Dec. 2018. Air emissions are monitored on different periods and reported annually, so there are no air emissions to assess at this time.

Jan. – Mar. 2019: All results are compliant except a PCP result of 359 g/w, which has been recorded as a non compliance in the Mar. 2019 CAR1. **One parameter is missing: the concentration result for TCB – please supply the result.**

Apr. – Jun. 2019: All results are compliant except a weekly PCP result of 288 g/w and a concentration result of 18 ug/l versus 15 ug/l. Non compliances for PCP, beyond the Mar. 2019 are considered part of an ongoing event, to be re-evaluated beyond 31st Mar. 2020. The TCB concentration result was recorded during this quarter.

Jul. – Sep. 2019: All results compliant except a weekly mass limit for PCP of 263 g/w – see comments above re. PCP exceedances.

It should be noted that the installation of the reed bed drainage system, the interceptor trenches and collection sumps, has potentially disturbed and mobilised some PCP contamination, which is then flushed during high rainfall results.

The PCP situation is described in more detail under the previous notifications heading. IC33 required an assessment of options to reduce PCP and this has led to the installation of the reed bed system and the formal close out of IC33. However, the compliance with the PCP limits on an ongoing basis will be expected and irrespective of IC33 close out, further measures may need to be implemented in the future (beyond Mar. 2020), if the PCP limits are still being exceeded. Such measures could include, although not necessarily limited to:

- Increased pumping of contaminated area
- Additional reed bed basins
- Do not return treated water to the area – collect and dispose – although this may increase concentration of PCP in subsequent withdrawals
- Cap the area to prevent rainwater infiltration

END

EPR Compliance Assessment Report

**Report ID:
CAR_NRW0036068**

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

Site	Newport Chemical Complex	Permit Ref	BR97151B
Operator/Permit holder	Solutia UK Ltd	Date	05/12/2019

Section 3 – Enforcement Response

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.

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.

Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

Criteria Ref.	CCS Category	Action required/advised	Due Date
See Section 1 above			

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 verbally or 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.

See our Enforcement and Civil Sanctions guidance for further information

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 that 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.

Section 6 – General information

Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW 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 (eg. 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 its service
- Freedom of Information Act/Environmental Regulations request

The NRW 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 NRW 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 fifteen working 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?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to enquiries@naturalresourceswales.gov.uk. If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

Welsh Language

If you would like this form in Welsh please contact your Regulatory Officer.