

Compliance Assessment Report

Report ID:
CAR_NRW0032265

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

Site	Barry Thermosets Plant EA/EPR/PP3238LX/V002	Permit Ref	PP3238LX		
Operator/Permit holder	Hexion UK Limited				
Regime	Installations				
Date of assessment	09/10/2017	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	Response to Actions				
Lead officer's name	Kemp, Andi				
Accompanied by					
Recipient's name/position	Ian Beatty/ EH&S Manager	Date issued	10/10/2017		

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
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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

Purpose of Compliance Assessment

This CAR1 form covers updates on actions from May 2016, January 2017, April 2017 and the final update from the resin spill in March 2017.

The operator has submitted the following information in relation to the following actions:

Action 7 May 2016 – Sea line update – due 31st May 2017. Received – covering email off IB (26th May 2017), BAC report (Jul 2014), ABB Examination (25th Sep 2014), BAC report (Oct 2016).

Action 2 Jan 2017 – fugitive emissions review – received a review 29th Sep 2017.

Action 4 Jan 2017 – spill kit diesel pump – email and photograph received 7th April 2017.

Action 1 April 2017 – formaldehyde analysis – received analytical and UKAS details 26th May 2017.

Update on resin spill CAR1 (April 2017) – received update and ETP data, 28th April and 4th May 2017.

This leaves the following actions outstanding:

- Action 6 May 2016 Borax trial – not taken place yet
- Action 5 Jan 2017 – glycol tank bund – due 31st Dec 2017

Other regulatory items to be progressed are:

- IC4 ETP – see CAR1s: May 2016 and Jan 2017 – work on assessing the efficiency of the ETP and further work on modelling phenol impact is required
- Site Condition Report – See CAR1s: May 2016 and Jan 2017 – AK awaiting NRW Geoscience comments on the Enzygo report submitted in Feb 2017 (Action 2 Jan 2017 CAR1); AK has had an initial meeting with Geoscience to brief them on Enzygos findings and approach and picking up from the NRW letter re. the Excal report (Jan 2016)
- Possible permit variation – see CAR1 May 2016
- OMA follow up from 2016 – e.g. follow up on Aqua Check results

Actions Update

Action 7 May 2016

Ultimately the operator wants to adopt a 5 year inspection schedule for the integrity of the sealine outfall, which benefits from cathodic protection. The remaining task was to prove the cathodic protection extended as far and into the diffuser head – thus promoting efficient immediate dilution, which supports impact assessment of effluent releases. Dye testing and ensuring the electric current flows to the diffuser head are ways to demonstrate cathodic protection extends to the diffuser and that the diffuser is working as intended.

To support and build upon the 2014 submission, IB submitted an ABB dye test report with photograph and a Close Interval Potential Survey (as recommended in the 2016 routine annual monitoring) from BAC, October 2016. The report concludes that cathodic protection is in place to the diffuser and the photograph supports this conclusion.

As recommended by BAC and requested by the operator NRW accepts a five year interval for Close Interval Potential Survey, next one 2021, possibly supported by dye testing at the same time – this aspect to be confirmed as warranted or not on top of the C.I.P.S. **Action 7 May 2016 closed.**

Action 2 Jan 2017

A review of fugitive emission sources was submitted in response to this action. This submission primarily concerned identification of possible sources of fugitive emissions, with additional quantification methodologies proposed over the next year. It is then anticipated that the quantification / estimation exercises could lead to discounting some sources from further actual monitoring or requiring additional measures to eliminate or reduce other more significant sources.

Guidance has been given previously on ways to approach assessing and reporting potential fugitive emissions – see CAR1s: May 2016 and January 2017.

This review builds on the previous submission of 2014 and focusses on emissions to air – NRW agree with this in the first instance – notwithstanding any future evidence that suggests a source of fugitive emissions to water – in support of the operators decision, the chemical processing area, raw material off-load and waste and product handling areas are all contained within the reactor area tertiary containment system.

This review lays out a comprehensive list of possible sources and locations of fugitive emissions, linked to activities taking place on site. This includes looking at various pumps, tanks, hoses, flanges, valves and for off-loading and filling of drums and IBCs.

The reactors are connected to the scrubber and the bursting discs should not be rupturing routinely, therefore these are discounted as sources of fugitive emissions. Certain product storage tanks are also connected to the scrubber, therefore discounted. Loading point hose seals will be looked at though.

The strategy the site propose is to identify all potential sources; build in the number of transactions, such as deliveries off-loads; directly measure a representative set of locations (e.g. different pump seals, flanged joints and hose seals, free venting tank vents) and apply some sort of emission factor into the estimation calculation; estimate other sources if they can't be measured.

Recommendation 1, 9th October 2017: *Operator to take into account the following points, on top of actions already described in the submission, when monitoring or estimating to derive a total fugitive emissions picture:*

- *Temperature and vapour pressure of stored substances and effect on partitioning to air*
- *Focus on significant releases and periodically (as per permit conditions) introduce reduction / elimination strategies (double sealed / canned pumps; vessel paint to minimise heat absorbance; reduced joints; appropriate gaskets; more efficient number of deliveries) as data indicates potential significant losses*
- *Whilst reactors are not included routinely, operator to consider reactor washing, emptying and inspection during batches or maintenance operations, along with other vessel washing / maintenance activities*
- *Design and installation at all available opportunities for significant sources, vapour return system*
- *Use conservation vents and move away from free venting where potential significant losses and / or substance properties (volatile) indicate requirement*
- *Identify, by using technical literature, standards or manufacturers specifications, benchmark figures for the Barry site, that would either be considered typical well controlled releases or trigger levels prompting some investigation and further reduction actions.*

Action 2 Jan 2017 closed.

Action 4 Jan 2017

The operator submitted written confirmation and a supporting photograph confirming an appropriate spill kit is available and located proximate to the diesel storage.

Recommendation 2, 9th October 2017: Ensure site has procedures to ensure the right kit is at the right location and that it is capable of handling a spill in the area it is used; are checked routinely to ensure still viable and actually contain equipment; waste procedures (especially hazardous) are used in accordance with the relevant regulations with regard to storage, classification and disposal of used spill kit.

Action 4 Jan 2017 closed.

Action 1 April 2017

This concerned the status of the analytical method used by external labs for samples from Hexion with regard to formaldehyde in treated effluent. In support of this the operator submitted the labs in house analytical method and the UKAS schedule of accreditation for that parameter in effluents and leachates.

Recommendation 3, 9th October 2017: *Operator to have written procedures covering periodically reviewing sampling and monitoring methods; using EA M18 and other sources, e.g. ISO CEN or US Standard Methods for Examination of Waste Waters. Follow up on this area falls out of the 2016 OMA.*

Action 1 April 2017 closed.

Update on March 2017 Resin Spill

This event was investigated and written up initially in a CAR1 4th April 2017. Another site inspection took place where an update to the root cause investigation and review of procedures was given. These updates are attached to NRW files for this CAR1. The main points covered were:

- Reactor area drains and sumps can be shut off
- This system ultimately drains to the dirty lagoon if not isolated in Area 30
- Blowing debris from the filter via the drain valve to Area 30 sump and then requirement to shut that valve is explicitly in the IBC filling procedure

- Training was given and recorded in 2015
- Additional measures to be built in by revisiting HAZOP for this event and the risk; revisit MOC and open ended line policy
- Blank off drain valve – input via MOC
- Audit Open Ended Lines
- Accurate estimate of amount lost, by DCS trends and packed quantity – these show good agreement
- Site hold the relevant data on substance properties and event like this are built into emergency plans and procedures

In addition to this a period of extended, more detailed monitoring of the ETP took place as the spill ended up in the dirty lagoon and then went through the ETP. The operator has supplied the composite sampling data and it can be seen that the permit emission limits have not been breached and it can be concluded that the biological ETP has not been affected by this resin spill.

Action closed.

EPR Compliance Assessment Report

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Operator/Permit holder	Hexion UK Limited	Date	09/10/2017

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.