Cyfoeth Naturiol Cymru
Natural Resources Wales

Compliance Assessment Report CAR_NRW0046354

Permit being assessed: BR9685IX.

For: Barry Silicone Plant, **held by:** Dow Silicones UK Limited

At: Cardiff Road, Barry, Vale of Glamorgan, CF63 2YL.

Type of assessment: Audit,

Reason: Incident Response (Incident number 2409391).

On: 10/12/2024 - 11/12/2024 between 09:00 and 16:00.

Parts of permit assessed: 1.1.1(a) and 3.2.1.

NRW Lead Officer: Geraint Harris, accompanied by Antony Leakey.

Report sent to: Environmental Manager, Environmental Manager, on 18/03/2025.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR4B - Installations - Information - Reporting	Action only (X)	
IR3E - Installations - Emissions and monitoring - Monitoring	Action only (X)	
IR3E - Installations - Emissions and monitoring - Monitoring	Action only (X)	
IR1D - Installations - Management - Efficient use of raw materials	Action only (X)	
IR1A - Installations - Management - General Management	C2 Significant	1.1.1(a)
IR4C - Installations - Information - Notification	Action only (X)	
IR4C - Installations - Information - Notification	Action only (X)	
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	C2 Significant	3.2.1

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

Total non-compliances recorded	Total non-compliance score
2	62

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
IR4B	Please ensure all future reporting forms reflect the requirements of the permit.	30/04/2025
IR3E	Dow to confirm that all the emission points for A41 are referenced to the above conditions and not just the HCL.	30/04/2025
IR3E	Emission point A120 should be monitored for no visible releases of particulates when the W930 catalyst is being charged. Action 3: Dow to confirm that such checks were undertaken in 2024.	30/04/2025
IR1D	Please review your previous water usage and current operations to identify opportunities to improve the usage of water onsite. Please report your findings to NRW by the 1st of May 2025.	30/06/2025
IR1A	Dow had stated that there were at least three other DPR or slurry pumps onsite that also experienced impellor ware, indicating casing ware was also a potential. Pipework inspections of pumps on similar duties including the pump reducing discharge spools had been ongoing during the last inspection. Dow to confirm that this work has been completed and to report their findings along with any improvement plans by the 3rd of April 2025.	30/04/2025
IR4C	Dow must provide NRW with a Schedule 5 Notice with part B completed for the 15th of June loss of containment.	30/04/2025
IR4C	Dow must provide NRW with a Schedule 5 Notice with part B completed for the 5th of September loss of containment.	30/04/2025
IR3A(2)	Please provide NRW with an air quality impact assessment for the incident that occurred on the 15th of June 2024. The report should include an assessment of all the possible releases including HCL, chlorine, phosgene and particulate matter. Report to include an assessment against the short-term EALs, as well as the Acute Exposure Level Guidelines (AEGLs) concentrations where applicable. The report should represent the actual incident as well as a worst-case scenario.	Already completed

Compliance 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.

You are non-compliant with your permit.

We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.

4. Details of our assessment

Dow Silicones

EPR/BR9685IX

Monitoring Returns

Q3 and Q4 2024

The Q3 and Q4 monitoring returns were submitted on time.

Dow's reporting form for emission point W1, in Q3, for BOD emissions states "no spot sample shall exceed the emission limit value by more than 50%". This is incorrect. Dow's permit does not contain this caveat. Dow's reporting form for W1, in Q4, for BOD reflects the current permit and does not contain this caveat.

Action 1: Please ensure all future reporting forms reflect the requirements of the permit. Due by the 30th of April 2025.

For emission point W949 (A41) the permit states that the emission concentrations shall be reported at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 11% dry. This is as previously agreed between NRW and the operator.

Action 2: Dow to confirm that all the emission points for A41 are referenced to the above conditions and not just the HCL. Due by the 30th of April 2025.

Emission point A120 should be monitored for no visible releases of particulates when the W930 catalyst is being charged. This doesn't need to be submitted to NRW, however, a record of observations must be kept within the EMS for future audits.

Action 3: Dow to confirm that such checks were undertaken in 2024. Due by the 30th of April 2025.

Waste Disposal and Recovery for the year 2024

Dow saw an increase in calcium filter cake disposal due to stockpiling in 2023, which has since been rectified. Dow's third-party sulphuric acid recovery outlet ceased accepting waste in 2024 as a consequence of a force majeure. Since no other recovery options were/are available, Dow has had a significant increase in the disposal of spent sulphuric acid instead of recovery in 2024. Dow has had a reduction in bio-sludge disposal due to more efficient management of bio-sludge growth and steady operation of the SWWT process. They have also had a reduction in calcium slurry due to the improved PWWT reliability.

Water Usage

Dow had an increase in water usage in 2024 which was the highest since 2019. As previously agreed,

Dow's annual returns don't contain any information on specific usage so it is difficult to establish if this increase in water use is as a result of increased production. However, Dow's permit requires them to take appropriate measures to ensure that raw materials and water are used efficiently in their activities.

Action 4: Please review your previous water usage and current operations to identify opportunities to improve the usage of water onsite. Please report your findings to NRW by the 30th of June 2025.

Water OMA December 2024

A Water OMA was completed on the 10th and 11th of December 2024. We use the OMA scheme for the following reasons:

- assess the quality and reliability of operators' self-monitoring (including monitoring undertaken on behalf of operators by contractors) as required by their permit
- identify monitoring shortfalls and potential areas for improvements
- review the monitoring conditions in the permit

The final report is attached to this report. A draft version was sent to Dow but no further information or additional comments were supplied. Consequently a score of 79% was achieved. This is a slight reduction compared to the previous score of 82% achieved in 2019. Observations and Recommendations are highlighted in each summary box at the end of each OMA section, Dow should review these and act upon them where necessary.

Effluent Treatment Plant

Dow reported that the upstream solvent separator, which facilitates the separation of siloxanes, oils and solids from the incoming effluent, was recently cleaned out. The solids arriving from the W1205/6 Quench process effluent stream usually settle out within the solvent separator and downstream tankage, which is periodically cleaned. Dow reported that the separator was full of solids at the time of cleaning which suggests that the cleaning frequency should be reviewed and amended to improve the efficiency of the separator and reduce the solids carryover.

Action: Dow to provide an update on the cleaning frequency in the next compliance meeting in 2025.

During the walk-around, Dow stated that they intend to trial a new less viscous solution to further improve delivery and improve the settlement within the FSTs.

Action: Dow to provide an update in the next compliance meeting in 2025.

Efficient use of Raw Materials

During the latest COMAH Competent Authority Inspection (Report 24/04/2024) it was noticed that the nitrogen purge flow meter (FI 222) into the 3601 vent was found to be off the scale with the ball valve fully open and the needle valve badly corroded. The senior operator confirmed that a maintenance note had been raised to rectify this. The relevant P&ID does not show an orifice plate is installed in the nitrogen supply to limit maximum flow. This represents a waste of nitrogen if the flow

rate is significantly higher than the design rate. During the onsite meeting on the 21st of August 2024, the above works were discussed and Dow confirmed that the permit to work to rectify the ceased valve was dated for that day. This was demonstrated during the meeting.

Action: Dow to provide an update in the next compliance meeting in 2025.

Drainage Inspection

The most recent COMAH competent authority inspection report, undertaken on the 24th of April, states "Drainage inspection by CCTV report has been undertaken across most of the network, with limited gaps at the valve pits and adjoining pipes in W712 loading bay/pump area, and the frequency for some sections is quite low (>10 years). Some erosion of Bondstrand lining is indicated in one section and manhole C812 close to W809 spill pond had a full circumferential pipe fracture defect recorded in 2013. A patch repair was carried out in 2016 and follow-up inspection is required to ensure that no ground/groundwater contamination has occurred. This aspect will be followed up as an EPR16 matter."

An additional ad hoc inspection of the Bondstrand chem sewer drainage pipework is recommended to ensure that deterioration of some lower-grade sections is not accelerating.

Action: Please undertake a follow-up inspection to ascertain if there has been any ground/groundwater contamination in the immediate area.

During the onsite meeting on the 21st of August representatives of Dow said that they had not completed this work but were going to check with the relevant departments for an update. **Action: Dow must provide an update at the next compliance meeting in 2025.**

Trichlorosilane Incident

On the 15th of June 2024, there was an incident at the Dow Silicones UK Ltd.'s upper tier COMAH site in Barry, Wales, involving the loss of containment of Trichlorosilane (TCS) and Direct Process Residue (DPR) from the recirculation pump (P2-1016) associated with the TCS purification still pot (1016). As a result of the loss of containment, a small fire started and a cloud of hydrochloric vapour formed (HCl) as a consequence of the DPR reacting with the moisture in the air. The loss of containment was detected at 14:58 due to an ambient air alarm sounding. Evidence showed that the HCL air analysers activated at 20 ppm HCl, with a high-high alarm at 90 ppm, activated seconds later. Evidence showed that the Temperature Safety Valves (TSV) from, and to, the still pot (1016) were isolated 5 minutes after the alarm was sounded. This isolation was conducted manually, involving an operator entering the plant and activating the TSV valve. Such valves were located approximately five to ten metres from the DPR leak. These TSVs could have automatically closed had the fire been large, and or, hot enough, however, this did not occur at the time of the incident. These TSV valves can also be controlled from Dow's control room, however, this results in all of the TSVs on the plant simultaneously closing. Dow's operators were reluctant to remotely close all of the TSV valves due to concerns that new hazards and risks would be generated upon a restart. It was this reluctance that caused the delay in isolating the chlorosilane bearing flush to the DPR pump (P2-1016).

Consequently, this was isolated 33 minutes after the alarm was first sounded and therefore extended the duration of the release. Dow estimated that the total release equated to 874 kg of TCS, which generated 707kg of HCl vapour.

To ascertain the actual/potential impact of this release, Dow were issued with a Regulation 61 Notice requesting the following:

Please provide NRW with an air quality impact assessment for the incident that occurred on the 15th of June 2024. The report should include an assessment of all the possible releases including HCL, chlorine, phosgene and particulate matter. Report to include an assessment against the short-term EALs, as well as the Acute Exposure Level Guidelines (AEGLs) concentrations where applicable. The report should represent the actual incident as well as a worst-case scenario.

In response, Dow provided an air quality impact assessment for the HCl release at W348. This included CHEF software to calculate the quantity of the release and PHAST modelling to assess the release distance and concentrations downwind of the release point. Dow reported that the release did not continue at the same rate throughout. Initially, the release rate was 1000kg/hr until the source of the liquid could safely be isolated, the remainder of the release was 50kg/hr whilst residual material vapourised. The total release equated to 874 kg of TCS, which generated 707kg of HCl vapour in contact with air and water sprays used during the emergency response. Water spray curtains were used to contain the HCl vapour, creating weak hydrochloric acid which was contained in the on-site chemical sewer network and treated at the on-site wastewater facility. Unquenched HCl vapour was carried downwind in an eastward direction and reached Sully Moors Road before it dispersed. The assumptions used were that all of the TCS was converted to HCl and the water sprays did not remove any of the HCl vapour from the air.

Dow have based their modelling around the Emergency Response Planning Guidelines (ERPGs) rather than the AEGLs. ERPGs estimate the concentrations at which most people will begin to experience health effects if they are exposed to a hazardous airborne chemical for 1 hour. ERPGs should be used to help protect the public when AEGLs aren't available and there has been a chemical release that is short-term in duration. ERPGs estimate how nearly all of the public (except for sensitive individuals) would react to a release of this nature, so they can be used to identify areas where a hazard exists if the concentration of hazardous gas is exceeded for the specified exposure duration. A chemical may have up to three ERPG values, each of which corresponds to a specific tier of health effects. The three ERPG tiers for HCL are defined as follows:

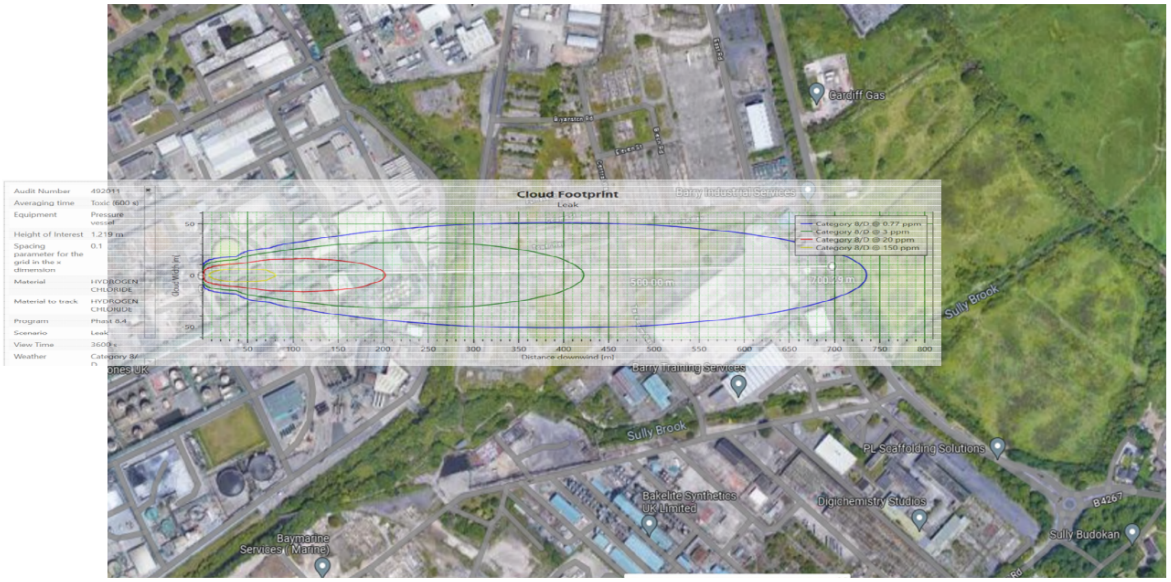
- ERPG-1 (3ppm) is the maximum airborne concentration below which nearly all individuals could be exposed for up to 1 hour without experiencing more than mild, transient adverse health effects or without perceiving a clearly defined objectionable odour.
- ERPG-2 (20 ppm) is the maximum airborne concentration below which nearly all individuals could be exposed for up to 1 hour without experiencing or developing irreversible or other serious health effects or symptoms that could impair an individual's ability to take protective action.

- ERPG-3 (150ppm) is the maximum airborne concentration below which nearly all individuals could be exposed for up to 1 hour without experiencing or developing life-threatening health effects.

Dow's PHAST modelling output, below, shows the worst-case scenario at the peak of the release, with the ERPG guideline concentrations overlayed.

- The Yellow line shows the point where ERPG 3 is exceeded at 150ppm – 75 m from the release point
- The Red line shows the point where ERPG 2 is exceeded at 20 ppm – 200m from the release point
- The Green line shows the point where ERPG 1 is exceeded at 3 ppm – 425m from the release point
- The Blue line shows the point where the odour is no longer detectable at < 1ppm – 700m from the release point

PHAST MODEL



This modelling represents a worst-case scenario whereby none of the emissions would have been abated. This was not the case, since the application of water occurred within minutes. However, notwithstanding the application of water application, NRW, considers permit condition 3.2.1 to have been breached during this incident. To breach this condition three key facets need to be considered, these include:

1. Was there an "emission"
2. Did they (the operator) implement "appropriate measures" and
3. Did the emission cause "pollution"

The investigation by Dow has evidenced that there was an emission (1), NRW and the HSE are also

satisfied that the operator had not implemented all appropriate measures (2). Therefore, to ascertain if this permit condition has been breached, NRW must establish if pollution has occurred. To determine whether the operator has breached the "pollution" limb of the EPR permit condition, we have used the definition of pollution as set out in the EPR regulations. Part 1, Section 2 ("Interpretation: general") of the Environmental Permitting (England & Wales) Regulations 2016 states: "pollution",… means any emission as a result of human activity which may:

- be harmful to human health or the quality of the environment,
- cause offence to a human sense,

The gas in question (HCL) is known to be highly toxic to life with the potential to cause serious injury and in some cases death. NRW would therefore argue that the events described above would constitute "pollution" by virtue of the fact that the emission from the installation may be harmful to human health, specifically in this case, the risk of serious injury to the workers within the installation.

To ascertain the severity of the non-compliance we must consider the potential impact on the environment, people and/or property of any non-compliance with a permit/licence condition. This is an assessment of the reasonably foreseeable impact. When considering the impact on human health, HCL is toxic and it is reasonably foreseeable that significant injury or effect on human health, as a direct result of the release of HCL, could occur to employees working at the site. It is very likely that, had an employee or contractor been working in the immediate area they could have sustained significant injuries. Dow's HCL sensors (20ppm and 90ppm activation concentrations) in plant W348, responded almost immediately within the W348 plant. Given the rapid increase in HCL levels as the fire started there is a real potential that had someone been working in the area they could have been seriously injured.

The responsiveness of the permit/licence holder and staff must also be considered along with any procedures, resources or infrastructure in place that might mitigate the impact. However, irrespective of Dow's reactions with isolating valves and applying water, it is reasonably foreseeable that the release of HCL, which is a toxic substance, could have had a significant injury or effect on human health of employees or contractors working in and near the W348 plant. **Therefore a category 2 noncompliance is being issued against permit condition 3.2.1**.

Root Cause

An identified non-compliance with a permit/licence condition is likely to be the symptom of an underlying issue. Most underlying issues can be attributed to an operator's management system. Dow's permit requires them to manage and operate their activities in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints. Since this incident fell within the purview of the COMAH competent authority, the root cause investigation was undertaken by specialists from HSE and NRW and was ultimately attributed to a failure in maintenance and inspection procedures along

with insufficient infrastructure to minimise the risk of pollution.

Dow's COMAH Safety Report provides some useful background regarding the operations of plant W348. Sustained high solids concentrations in the still pot (1016) can lead to operational problems with pumps, erosion of pipework and blockages at the base of the still pot. Any of these scenarios can lead to an emission/spill/fire from the DPR System. Therefore, periodically this solid-rich material is purged from the still pot by batch transfer to a DPR intermediates tank before transfer to waste treatment or recovery via the Methylchlorodisilane Plant. In addition to purging, the still pot (1016) contents are continuously recirculated to prevent plugging of the bottom piping by silicon fines. Special slurry pumps (P2-1016), with a cooling flush of clean chlorosilanes (TCS/STC) from the product end of the plant, are used for this purpose. Dow's COMAH safety Report states that up to 10 tonnes of material could be stored within still pot 1016, which is continuously being recirculated by the P2-1016 pump.

The loss of containment for this incident occurred from the casing of the DPR recirculation pump (P2- 1016) when it perforated. The cause of the perforation was the foreseeable erosion of the pump (P2-1016) casing by the suspended silicon fines present in the DPR. It was discovered that the operator had not been suitably and sufficiently inspecting the foreseeably worn parts of the pump (P2-1016), replacing them as required. While there was an appreciation that the DPR / Silicon slurry was abrasive, the operator had not, at the time of the incident, systematically assessed the risk of abrasion from the DPR slurry to the DPR recirculation pump (P2-1016). However, this hazard had been recorded on the pump specification sheet. The operator had no formal procedures for identifying the areas of the pump likely to fail due to erosion; and then inspecting these areas at a frequency proportionate to the risk, including defining under what conditions the pump casing must be replaced. The operator had neither identified appropriate process ranges to ensure the level of solids in the still bottom (1016) slurry was sufficiently managed nor identified means for controlling the solid concentration within such limits.

Significant erosion of the pump (P2-1016) impeller was observed, post incident. Such erosion of this impeller is known to the operator, who stated that when a new impeller was in place the variable speed pump (P2-1016), was run at a minimum speed (1460 rpm). Over time the recirculation flow decreased, and the plant operators would increase the speed to compensate until the pump was running at a defined maximum speed (2605 rpm). Once this maximum speed had been reached an order would be raised for the pump impeller to be replaced. Increasing the pump speed will also increase the velocities at which the pump surfaces and the silicon particles impact, potentially increasing the erosion rate that would be occurring. However, the operator had not yet identified and assessed this increased risk. The technician who would replace the impeller would also visually inspect the pump internals and replace those parts they had identified as excessively worn. Before this incident, no specification was given for this assessment, which it was stated was based on the competency of the technician alone.

The responsiveness of the permit/licence holder and staff must also be considered along with any procedures, resources or infrastructure in place that might mitigate the impact of an incident. With regards to infrastructure to mitigate potential impacts, Dow had two methods of rapidly isolating the DPR pump (P2-1016) from the DPR still (1016). These included a TSV located approximately five to ten meters from the DPR leak location and a switch in the control room which vented the air from all the TSVs on the plant, closing all of them including the two required to isolate the DPR pump (P2-1016). For the DPR bearing flush only one means of emergency isolation of the flow was present, the switch in the control room which vented the air from all the TSVs on the plant. It can be concluded that at the time of the incident Dow did not have a suitable and sufficient emergency isolation system, incorporating remotely operated shutoff valves, which could be both:

a) Operated from a safe location in at least two alternative locations.
b) Does not generate additional hazards and risks.
c) Which those responding to an emergency are empowered to use.

The subsequent internal investigation identified 18 holes within the casing, in total. The post-event-thickness of such holes was found to be between 1.5-1.8mm. Since chlorosilanes react with moisture to create HCL acid, the corrosion to the pump casing was likely a contributing factor in increasing the number and size of these holes once the incident had started. Since Dow had not been suitably and sufficiently inspecting the foreseeably worn part(s) of the pump (P2-1016) and replacing them as required, there is a reasonably foreseeable risk that much more or much larger ruptures to the pump casing could have occurred. On observation of the CCTV footage from the incident, it was clear that if the wind had been blowing in a different direction the local TSV isolation switches would not have been safe to use until the individual(s) were wearing suitable breathing apparatus and PPE, therefore potentially prolonging the duration and potential impact of this incident. Therefore, it can be concluded that not all appropriate measures had been put in place to prevent/minimise the likelihood of pollution arising from Dow's operations. Consequently, the root cause can be assigned to inadequate maintenance and inspection procedures along with insufficient infrastructure to minimise the risk of pollution. **Therefore, a category 2 noncompliance is being issued against permit condition 1.1.1.**

Dow had stated that there were at least three other DPR or slurry pumps onsite that also experienced impellor ware, indicating casing ware was also a potential. Pipework inspections of pumps on similar duties including the pump reducing discharge spools had been ongoing during the last inspection.

Action 5: Dow to confirm that this work has been completed and to report their findings along with any improvement plans by the 30th of April 2025.

Dow's emergency response and notification actions with regards to this incident will be reviewed in 2025.

Action 6: Dow must provide NRW with a Schedule 5 Notice with Part B completed by the 30th of April 2025.

W348 TCS Loss of Containment 5th of September 2024

At 21:17 on the 5th of September, 2024, a loss of containment occurred at the pump strainer (P1022) when a technician, upon observing a gel on the P1022A strainer, decided to 'nip-up' the strainer bolts. Consequently, a mixture of 218.8kg of Trichlorosilane (TCS) and 93.7kg of Silicon Tetrachloride (STC) was released, which reacted with atmospheric moisture to form 57kg of Anhydrous Hydrochloric acid. The technician was subsequently exposed to this mixture and without wearing the correct PPE, required medical assessment at a hospital along with follow-up appointments at Morriston Burns Unit.

The plant HCL detectors and alarms worked as required and alarmed the panel operators of the release at 21:18. The remotely operated TSV shut-off valves on the suction of P1022A were closed and the plant deluge system was activated by plant operators at 21:19. Sometime between 21:19 and 21:55 another technician re-entered this part of the plant, as part of first response in level B PPE, to tighten the bolts on the strainer. Dow reported that the emissions to air were maintained within the site boundary and the deluge and fire monitor water was contained and treated within the onsite wastewater treatment.

Permit condition 3.2.1 states "Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions".

To breach this condition three key facets need to be considered, these include:

4. Was there an "emission"
5. Did they (the operator) implement "appropriate measures" and
6. Did the emission cause "pollution"

The investigation by Dow has evidenced that there was an emission. To determine whether the operator has breached the "pollution" limb of the EPR permit condition, we have used the definition of pollution as set out in the EPR regulations. Part 1, Section 2 ("Interpretation: general") of the Environmental Permitting (England & Wales) Regulations 2016 states: "pollution",… means any emission as a result of human activity which may:

- be harmful to human health or the quality of the environment,
- cause offence to a human sense,

Like with the previous incident the gas in question (HCL) is known to be highly toxic to life with the potential to cause serious injury and in some cases death. NRW would therefore argue that the events described above would constitute "pollution" by virtue of the fact that the emission from the installation may be harmful to human health, specifically in this case, the risk of serious injury to the workers within the installation. Therefore, to establish a noncompliance against permit condition 3.2.1, NRW needs to establish if Dow had employed appropriate measures to prevent or where that

is not practicable, to minimise, such emissions.

The subsequent investigation highlighted that Dow utilise a system of safe working permits when maintaining plant equipment such as strainers. On the night in question, a safe work permit had been completed and signed off for the change/cleaning of the P-305 and P-308 strainers. The checking and 'nipping-up' of strainer P1022A was not on the shift manager activity log and had not been subjected to a safe working permit. Dow stated that the process of quickly 'nipping-up' bolts on live plant, including strainers, was something they didn't approve of or endorse onsite and that the technicians should have completed the relevant safe systems of work before completing such a task. It was also highlighted that the operator had tried to use a single spanner to tighten up the bolts on the strainer which isn't considered best practice. Given the high operating pressures within the strainer, the use of a single spanner may have exacerbated the incident. Therefore, it can be said that Dow had been implementing the appropriate measures to prevent and/or minimise emissions and it was the lone actions of an employee which resulted in this incident. Consequently, it is considered by NRW that permit condition 3.2.1 has not been breached for this particular incident.

Action 7: Dow must provide NRW with a Schedule 5 Notice with Part B completed by the 30th of April 2025.

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.

If your assessment result in Section 1 is suspended, what does this mean?
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 compliance criteria (used in section 1 and 2):

1. Management
- IR1A – General management
- IR1B – Finance (only applicable to Landfill)
- IR1C – Energy efficiency
- IR1D - Efficient use of raw materials
- IR1E - Avoidance, recovery and disposal of wastes produced by the activities
- IR1F - Multiple operator installations

2. Operations
- IR2A – Permitted activities
- IR2B – The site
- IR2C – Operating techniques
- IR2D – Technical requirements
- IR2E – Improvement programme
- IR2F – Pre-operational conditions
- IR2G – Landfill engineering (only applicable to Landfill)
- IR2H – Waste acceptance (only applicable to Landfill)
- IR2I – Leachate levels (only applicable to Landfill)
- IR2J – Closure and aftercare (only applicable to Landfill)
- IR2K – Landfill gas management (only applicable to Landfill)

3. Emission and Monitoring
- IR3A – Emissions to water, air or land
- IR3B – Emissions of substances not controlled by emission limits
- IR3C – Odour
- IR3D – Noise and vibration
- IR3E – Monitoring
- IR3F – Pests
- IR3G – Air quality management plans
- IR3H – Monitoring for the purposes of the Industrial Emissions Directive (this heading includes Large Combustion Plants)
- IR3I – Fire

4. Information
- IR4A – Records
- IR4B – Reporting
- IR4C – Notification

Enforcement response
Any non-compliance with a permit condition 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 twenty 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 to 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.