

Compliance Assessment Report CAR_NRW0040958

Permit being assessed: DP3030ZC.

For: PB Gelatins EPR/DP3030ZC, held by PB Gelatins UK Limited

At: Unit A6 Severn Road , Treforest Industrial Estate, Pontypridd, Rhondda Cynon Taf, CF37 5SQ.

Type of assessment carried out: Report/Data Review, Reason: Incident Response (Incident number 2208228).

On 31/12/2022.

Parts of permit assessed: Incident response, Actions close out, new infrastructure proposal

NRW Lead Officer: Dale Padfield, accompanied by Geraint Harris.

Report sent to: Simon Hughes, Health, Safety and Environment Manager on 19/01/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E2 - Emissions - Land and groundwater	C3 Minor	3.1.1
B1 - Infrastructure - Engineering for prevention and control of emissions	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
1	4

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
E2	No action required - Release due to act of sabotage.	Already completed
B1	Conduct CCTV survey of the repaired subsurface effluent pipeline to ensure its integrity has not been compromised.	30/04/2023

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

PB Gelatins

Permit EPR/DP3030ZC

This compliance assessment report (CAR) covers several topics, these are-

- Response and closeout of the actions from CAR_NRW0040197, which were issued following the incident that occurred on the 06th of June 2022.
- Compliance scoring and summary of the foaming event that had occurred on the 11th of November 2022.
- Site meeting held between NRW and PB Gelatins on the 16th of December to review the proposal of a new drainage system and subsequent permit variation.

Response to actions from CAR NRW0040197

For ease of reference, the actions are listed below.

New action 1: PB Gelatins 2nd August 2022: Review the current management of change procedure, or if no such procedure is currently in place, consider implementing a management of change procedure to mitigate the potential of any future oversight when changes to the EMS are made. Due 30th September 2022.

New action 2: PB Gelatins 2nd August 2022: Evaluate the continued suitability of effluent subsurface drainage system from the A21 production building. It's recommended a cost / benefit analysis of alternative methods for the transfer of effluent or treatment and discharge at source. Taking account of any future financial and environmental costs that may occur if the system were to fail again. Due 30th September 2022.

New action 3: PB Gelatins 2nd August 2022: If the decision is made to continue using the subsurface effluent transfer system, then please submit a plan detailing the improvements that will be made during 'Phase 3' of the full remediation of the effluent system and how adequate environmental protection will be achieved. Due 30th September 2022.

New action 4: PB Gelatins 2nd August 2022: To determine if soil and ground water has been contaminated by the defective effluent drainage system, provide a justification for the proposed 'WS Install' sample point. Determine if this sample point will provide representative data of any potential ground water contamination and evaluate if a change of location or more sample points are required. Also provide a justification for the appropriateness/adequacy, quantity of, and locations for the intrusive investigation in relation to permit requirement 3.1.3. Due 31st August 2022.

New action 1- A response was received from PB Gelatins environmental consultants (ECL) on the 20th of

September 2022. A review was conducted on the existing management of change procedures (MOC's). There were two procedures that related the MOC, these were *TRE_QAP4_0* which related the quality management system (QMS) and a second procedure *QAP13.5*, which is used for proposing improvement opportunities. Both procedures were out of control of the EMS, as such there was no MOC procedure specifically in place for changes to EMS. As a result of the review undertaken, ECL have proposed to add an MOC procedure specifically to the EMS which will be linked to operational controls procedure. The MOC will include procedures to take account of changes to process, supplier, materials and equipment and will also take account of changes to environmental controls and documentation covered by the EMS.

It is also noted that Pb Gelatins are in the process of undertaking a complete review of the environmental management system (EMS) as stated in the PBGE.01.07_EIRI report, after an initial review identified several deficiencies. It is PB Gelatins intention to have the EMS brought in line with ISO14001 and to have the system independently audited by Environmental Compliance Ltd (ECL). However, no formal accreditation to ISO14001 is planned at this time. New action 1 is considered complete, NRW will conduct an audit of the new EMS once it is finalised and fully implemented.

New action 2 & New action 3- A response was received on the 14th of September 2022 from PB Gelatins environmental consultants ECL. It was confirmed that PB Gelatins had undertaken an assessment of the continued suitability of the effluent subsurface drainage system. The assessment concluded that the system is no longer fit for purpose. As such, PB Gelatins made the decision to install a new effluent treatment process, providing longevity and the best environmental outcome.

Initially PB had obtained two outline proposals but streamlined these taking into consideration both the planning and permitting implications. The new proposal was the subject of discussion during the meeting held on the 16th of December 2022, as such further information is detailed in the 'PG Gelatins new drainage Proposal meeting' section below.

PB have stated that repairs of the subsurface drainage system will still be conducted, these included the installation of new manholes and the re-lining of the pipework with subsequent dye testing and surveys to ensure integrity of the system. The subsurface drainage system will be used only in the interim whilst the new ETP is commissioned, after which the subsurface drainage will be decommissioned and isolated.

For the purpose of CAR_NRW0040197, new action 2 and new action 3 are considered complete.

New action 4. An intrusive site investigation proposal (PBGE.01.07_EIRI) was submitted to NRW detailing proposed soil and ground water sampling. Additional sampling has been incorporated within this proposal to try to ascertain if there has been any effect on the local environment caused by this recent effluent drainage failure. NRW's geoscience team reviewed the proposal and action 4 was issued as a result of this review.

A response was received from ECL on the 17th of August 2022, a summary of their proposal is provided here. The works would comprise intrusive investigation by means of rotary coring and dynamic / windowless sampling to allow collection of soil and ground water samples. A total of 22 sampling locations was proposed, 10 to be situated at the A21 location and 12 at the A18 site and vicinity. The spacing of the boreholes was decided on a judgemental basis, accounting for on-site infrastructure, safe access and site layout. An additional sample point was to be positioned closer to the failed effluent drainage pipework along Taffs Mead Road, down gradient of the anticipated ground water flow. Boreholes were to be positioned in both down and up-gradient locations to assess any impact of site activities against baseline readings.

Soil samples were to be taken at a rate of one sample per meter, at every significant change in strata or if visible contamination was observed. Where ground waters were encountered, ground water and gas monitoring pipework would be installed at every location. Due to the shallower depth of the window samples, the ground waters encountered may not be representative of the ground water quality, due to the possibility of encountering shallow perched ground waters sitting above the water table. To assess ground water quality, 3 deeper bore holes were to be progressed to estimated depths of 15 to 18 meters below ground level (Mbgl). The ground water flow direction was anticipated to be north-east to east, as such, one borehole was to be positioned close to the A21 perimeter boundary to assess the influent ground waters. Two further deeper boreholes were to be positioned at the A18 facility, allowing an assessment to be made on the impact of site operations on the ground water quality.

A detailed map showing the sample locations along with the description and justification for each sample point was supplied with the response. The justifications and sample locations provided appeared reasonable. As such the response was accepted, allowing the intrusive investigation to be progressed. The report was received on the 28th of November, which is currently being reviewed by NRW's geoscience team, once available the review will be discussed in a separate CAR form.

New action 4 is considered complete.

PB Gelatins New Drainage and Effluent Treatment Proposal Meeting

On the 16th of December 2022 NRW met with PB Gelatins along with environmental consultants ECL to discuss the proposal for a new effluent treatment process at the A21 production building. This proposal has been designed to remove the need to pump effluent to the ETP situated at the A18 facility using the subsurface drainage line that had failed in June 2022. As stated in the response from ECL on behalf of PB, a cost benefit analysis concluded that although repair of the drainage line could be achieved, it was deemed that the continued suitability of the subsurface drainage system was no longer fit for purpose.

To eliminate the need to use the subsurface drainage system, PB outlined a new effluent treatment process that would be constructed in the rear yard area of the A21 production building. The process is not too dissimilar to that already used at the A18 building. Drains from the East and Western side of A21 will be diverted to a new pumping station, the effluent will be pumped from a new 30 m³ collection pit to a screening system. Suspended solids >0.5mm will be removed and collected in a roll on, roll off skip. Screened effluent will then be collected in a balancing tank to achieve homogeneity. The initial proposal was to utilise the redundant settling pits in situ. However, the settling pits are predominantly below ground level and have no secondary containment. During discussions NRW stated that this may be an issue when applying for the permit variation. Subsequently, PB Gelatins have decided on the installation of a new 110% bunded balancing tank for this operation. After a retention time of approximately eight hours the effluent will be pumped through a static mixer where the pH will be adjusted through the addition of acid and caustic before the effluent is discharged directly to sewer. The discharge point is the foul drain (sewer) located in Severn Road. PB Gelatins have discussed the new discharge point with Dwr Cymru Welsh Water (DCWW), no concerns were raised by DCWW. The foul drain line is the same line that is currently used for effluent discharge, this new proposal will result in approximately 2500 m³ a day of process effluent being discharged at point some 300m upstream of the current combined A18 & A21 effluent discharge point. There is no additional volume of discharge and DCWW have stated that the current trade effluent consent will be varied to account for new

discharge point, but overall limits will remain unchanged.

Proposals have also been made to alter the drainage configuration at the A18 facility. The current drainage system runs from East to West where it then joins the effluent stream from A21 at the E9 manhole, located on the Welsh Joint Education Committee (WJEC) property. PB plan to install a new drainage system within the A18 installation boundary, the effluent will then go directly to the pumping station. This will be achieved by modifying the elevation of drains along the Western side of the facility. New sections of pipe will be installed and the manhole chamber E13, situated on Gwaelod-y-Garth Road will be removed.

Once the new system has been commissioned and are fully operational, PB plan on isolating the current drainage line by filling with foam concrete to prevent accidental use of these drains in the future. Isolating the drainage is certainly good practise and NRW fully support this, however, this operation will need to be appropriately managed and will need to risk assessment with sufficient controls put in place, the prevent 'over-filling' of the pipework and the associated environmental impact of this. NRW would like to see the risk assessment for this operation before it is conducted.

PB stated that the effluent arising from the A21 production was 'cleaner' than that produced at the A18 facility. This suggest that some dilution may be occurring, whereby the more contaminated effluent arising from the A18 production is being diluted by the A21 production effluent. Without the addition of the A21 effluent there may be an increase in odour at the A18 effluent treatment plant. The operator should conduct increased checks for odour beyond the site boundary once the new system is in place to assess any impact of the new design.

PB have also proposed to install a biofilter to scrub odours air arising at the A18 facility, and plan to include this on the permit variation. This new abatement may help with environmental impact on amenity, as reports of odour have been a re-occurring issue in this area. As mentioned during the meeting, Draft 1 (June 2021) of the Slaughterhouses, Animal By-products and Edible Co-products Industries BRef has been published but indeed it may be sometime before we see this implemented in the UK. However, it may be worth assessing the performance of the new proposed biofilter at the A18 site with regards to the draft Best Available Techniques associated emissions levels (BAT AEL's). Although not currently a requirement, the operator may find it beneficial to future-proof the new system against potentially more stringent AEL's to avoid costly upgrades if the new plant should fall short of future BAT requirements.

Foaming Event – 11th of November 2022

On the 11th of November NRW's incident communication centre (ICC) received the following notification,

"Large amount of thick off white foam billowing up from the drain into the road outside a chemical plant by the car sales yard."

The incident was logged on the Wales Incident Recording System (WIRS) with the event ID: 2208228. The location provided was along Taff's Mead Road outside the PB Gelatins A28 - old farm facility next to gate No:3.

The incident was attended on the 11th and 12th of November, the NRW officers who responded stated evidence of foam was visible along the rocks at the surface water outfall located at the end of Bridge Road, the outfall discharges to river Taff. No foam was seen outside the A28 facility when officers arrived, but the road was visibly damp with evidence of effluent visible in the gutter. It was stated by PB Gelatin staff that they had already cleaned the foam from the road. The NRW officers that responded believed that the foam had

entered the surface water network storm drain in the vicinity of the incident, suggesting this was the suspected pathway of the foam seen at the outfall.

On the 12th of November a phone call with PB Gelatins environmental manager revealed that the foaming incident was a result of sabotage by a disgruntled employee. Numerous acts were committed by the employee, one of which was turning off the Dissolved air floatation (DAF) plant, this resulted in the anti-foam dosing to cease, causing the effluent to foam, and subsequently be released onto Taff's Mead Road via a process effluent manhole.

As a precautionary measure, PB Gelatins ceased all effluent discharging operations for the two days following this incident and conducted an extensive drainage investigation. The drainage systems at both PB Gelatin locations were dye tested in isolated sections with investigations also conducted on the surface water line. The specialist contractors conducting the investigation concluded that no dye from the effluent drainage system was seen to be entering the surface water line. Inspection of the surface water line revealed a blockage, and PB stated that it was unlikely to provide a pathway for the foam seen at the outfall. PB Gelatins have also noted that foam had been noticed at the outfall during their inspections the week preceding the foaming incident. The outfall located at the end of Bridge Road discharges surface water collected from the entire Treforest Industrial estate, therefore it is possible that source of the foam seen at the outfall originated from elsewhere on the Treforest Industrial Estate.

However, as effluent foam has been emitted beyond the site boundary on to Taffs Mead Road, permit condition 3.1.1 has been breached. Although the operator was quick to respond there was still a potential for this release to escape to the environment, as such the following minor non-compliance score will be issued.

Non-compliance: *A category 3 minor non-compliance is given for the emission of process effluent foam. Permit condition 3.1.1. It is an offence under Regulation 38(2) of the Environmental Permitting Regulations (consolidated 2016) to breach a permit condition or emission limit. Non-compliance score CCS3.*

Given the circumstances in which this incident occurred, and the actions already taken by the operator, no follow up action is required, and no root cause score will be issued. An additional concern was raised by the operator, during the surface water drainage network investigation, deposits of ossein were noted to still be visible within the pipework. It is believed that these are remnants from the drainage failure incident on the 06th of June 2022. As the surface water drainage network is a Dwr Cymru Welsh Water (DCWW) asset, it was believed they had undertaken a cleaning operation of this system following the incident in June. However, it is possible that some material has remained in the pipework. The operator is concerned that if this material should eventually wash through and discharge at the outfall it may raise a false alarm of an issue with the effluent drainage system. It is advised that PB Gelatins liaise with DCWW to arrange removal of this material.

Additional Compliance Notes

PB have completed repairs on the failed drainage line, which was subsequently dye tested and signed back over to PB in a safe working order on the 05th of January 2023. It was agreed that PB could continue to use the repaired drainage system whilst the new plant is designed and commissioned, providing no further releases to the environment occur due to failure of the system. PB stated that they would continue to monitor the system, including the outfall (located at the end of Bridge Road), using their current daily checks before reducing to once every three days and finally weekly until the new system is operational. NRW are satisfied with this approach, however, NRW request that six monthly surveys are conducted on the effluent line to ensure no deterioration is occurring, providing confidence that the system remains safe until the new effluent treatment process is in place. As discussed during the handover meeting on the 17th of January 2023, given the period of time since some sections of the repair work has been in place the first survey should be

conducted in April.

PB will also need to ensure that any new and remaining effluent pipework and associated equipment and infrastructure is captured within the preventative maintenance plan and will be subject to appropriately scheduled inspections and maintenance to ensure environmental risk is controlled.

Action 1 PB Gelatins 17th January 2023. Conduct CCTV survey of the repaired subsurface effluent pipeline to ensure its integrity has not been compromised. Once available, please report the findings to NRW. **Due 30th April 2023.**

Summary

NRW are pleased with the progress being made at the PB Gelatins facility to rectify the issues highlighted as a result of the drainage failure incident. PB Gelatins should be commended on the effort that has been made to improve the operations and infrastructure at the Treforest site. The investment in new infrastructure to treat process effluent from the A21 production building at source, removing the unsuitable drainage infrastructure should further reduce risk to the environment.

Please be reminded that NRW offer two hours of free consultation regarding permit variation. Please feel to contact me with any questions you may have.

Please keep NRW informed with any updates.

END.

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

Important information

Legal status of this report

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

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

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

To correct non-compliance, we may:

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

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

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

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

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

How we use assessment scores

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

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

What are suspended scores?

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

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

- A1 Specified by permit

B: Infrastructure

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

C: General management

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

D: Incident management

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

E: Emissions

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

F: Amenity

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

G: Monitoring and records, maintenance and reporting

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

H: Resources efficiency

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

Enforcement response

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

Data protection notice

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

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

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

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

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

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

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

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

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

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

Welsh Language Standards

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