

## Compliance Assessment Report CAR\_NRW0042707

**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:** Site Inspection,

**Reason:** Other.

**On:** 06/10/2023 between 10:00 and 12:30.

**Parts of permit assessed:** Effluent discharge from pumping station .

**NRW Lead Officer:** Dale Padfield.

**Report sent to:** Mauricio Caetano Ramos, Plant Director , on 09/02/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR4C - Information - Notification	C3 Minor	4.3.1(b)(i)
IR3B - Emissions and monitoring - Emissions of substances not controlled by emission limits	C2 Significant	3.2.1
IR1A - Management - General management	C2 Significant	1.1.1(a)
IR1A - Management - General management	Action only (X)	

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

Total non-compliances recorded	Total non-compliance score
3	66

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
IR4C	Please refer to action 1 within the main body of the report.	Already completed
IR3B	Please refer to actions 2 and 3 within the main body of the report.	Already completed

Criteria	Action needed	Complete by
IR1A	Please refer to actions 2 and 3 within the main body of the report.	Already completed
IR1A	Please refer to action 4 within the main body of the report.	29/02/2024

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.**

**At this time, we are issuing you with a warning for the non-compliance recorded above. Warnings may influence future enforcement response for continued or further non-compliance.**

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

PG Gelatins UK Limited

EPR/DP3030ZC

This compliance assessment report (CAR) details the un-authorized release of process effluent that occurred on the 28<sup>th</sup> of August 2023.

On Monday the 28<sup>th</sup> of August Dwr Cymru Welsh Water (DCWW) were investigating an asset failure on the Treforest industrial estate, during this investigation the drainage systems on the industrial estate were inspected. DCWW pollution technicians noticed an odour within the surface water network that they recognised as potentially being linked to the process effluent of PB Gelatins. Further investigation led them to discover pooling of milky coloured liquid and white residue along Taffs Mead Road. DCWW stated that they had then spoken to a PB operative who confirmed there had been an issue with the PB Gelatins (PBG) pumping station (situated at the intersection of Taffs Mead Road and Gwaelod-Y-Garth Road) which had resulted in effluent escaping the confines of the pumping station and discharging on to the road.

On Friday the 1<sup>st</sup> of September Natural Resources Wales were notified of this incident by DCWW. PBG were contacted on the 12<sup>th</sup> of September and asked to provide further information on the pumping station incident that had occurred on the 28<sup>th</sup> of August. A reply was received on the 13<sup>th</sup> of September, detailing the issue that had arisen and the actions taken by PBG to rectify. PBG stated that this had not been reported to NRW as they believed the discharge from their system was very local. PBG had inspected the surface water 'North outfall' (discharges to the river Taff) and did not see an apparent discharge at that point and concluded no notification was required. Further requests for information were made to PBG, to establish the nature of the failure and assess the potential impact. Photographs taken by DCWW on the morning of the 28<sup>th</sup> of August

were received by NRW on the 20<sup>th</sup> of September.

PB Gelatins had failed to notify NRW of the incident as they believed there had been no impact as a result of this incident. However, it is a permit requirement to notify NRW in the event of any permit breach. The unauthorised discharge of a polluting matter constitutes a breach of the permit, as such, failing to report this to NRW is a breach of permit condition 4.3.1(b)(i). The notification failure prevented NRW from conducting a timely response and investigation and prevented any assessment of impact or mitigation measures which may have been required at the time. The following non-compliance will be issued for the notification failure.

**Non-compliance:** A category 3 minor non-compliance is given for failing to notify Natural Resources Wales of a permit breach. Permit condition 4.3.1(b)(i). **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.**

**Action 1 – PB Gelatins 31<sup>st</sup> of October 2023:** PBG to ensure notification procedures are captured within the EMS, the procedures identify when a notification is required and ensure staff are aware of the procedures. Provide NRW with conformation when this has been completed. **Due 31<sup>st</sup> December 2023**

#### **Response**

A response was received on the 27/12/2023. PBG have engaged with consultants to support the amendment of their EMS to include reporting and provide appropriate training. Managers, supervisors and engineering will undertake training during Q1 of 2024, with web-based training rolled out for all staff and completed by the end of Q2 2024. Evidence was provided in the form of a quotation detailing the scope of work commissioned by PBG from the environmental consultant 'PBGE.01.11/Pv2. Action 1 is considered complete; a follow-up will be conducted in Q3 of 2024 to confirm roll-out of the training.

#### **Summary of incident**

Between 22:00 on the 27/08/23 and 01:50 on the 28/08/23 a failure in the pumping station resulted in an unknown quantity of effluent being discharged on to a public highway. A ring joint type union (RJT) connecting a horizontal section of pipework to a screen on the pumping station became loose. This resulted in a jet of effluent directed towards the gates of the pumping station. The discharged effluent escaped the pumping station compound through a gap between the hard standing and gate, by-passing the ACO drain, flowing across a public footpath on to Taff's mead road. PBG were unable to provide an estimate of the quantity discharged, flow rate or duration of the leak, but stated that it was a small proportion of the total volumetric flow through the pipe. The leak was detected at 01:50 on the 28/08/23, at which point the shift supervisor stopped on site operations and arranged for repairs to be conducted. Some washing down of the area with clean water was conducted, the extent of this is unclear. PBG arranged for a contractor to clean the road, this was conducted between 13:30 and 17:00 on the 28/08/23.

The Photos supplied by DCWW show pools of milky liquid – consistent with PGB effluent, along Taffs Mead Road. From these images, it would appear that a relatively significant quantity of effluent had been discharged. Pools of effluent are visible on both sides of the road within depressions, potholes and along the drainage gully with sections of the road appearing to be coated in a white residue. One image was taken approximately 110m away from the pumping station, the total release must have been of a sufficient quantity to have travelled this distance especially since some effluent was also lost to the drainage along this road. Some of the images show effluent holding within the drains, supporting PBGs statement regarding the blocked drains. A sample of images is provided below.



Assessing the actual environmental impact from this incident is difficult, given the limited information available. From the information received, there was an approximate four-hour window during which the effluent could have been discharging onto the road. The pumps are capable of pumping 120 m<sup>3</sup> of effluent per hour, if the leak rate was at a low percentage relative to total flow, it would still likely result in a leak of few thousand litres/hour. However, there is no information with regards to leak-rate, leak duration, quantity of effluent being pumped or percentage of the leak that escaped the pumping station compound. Given the nature of the effluent, had it been discharged to the river Taff there may have been a localised impact ranging from low to significant, depending on the quantity released. There are several factors that could have led to

increased environmental impact, including, the leak going undetected for a longer period of time, the drainage channels running free without blockage and a more significant leak from the source.

Beyond any potential environmental impact, of more concern was the potential for significant impact on people. The effluent was reported as having a pH range of 5 to 11. With a potential pH of 11, there is significant risk to human health. The effluent was discharging across a public footpath and would have been running/pooling along the road, and in front of local businesses along Taffs Mead Road. Fortunately, this incident occurred in the early hours when public presence would have been very low, however, pools of effluent remained along Taffs mead until 13:30 when the clean-up began. Had the leak occurred during a busier time, there would have been higher potential of harm to the public. If the leak had occurred on a vertical section of pipework, there would have been potential for the effluent to spray upwards, over the gate, further increasing risk to human health.

In undertaking our regulatory duties, NRW need to consider whether this emission has contravened the conditions of PB's EPR Permit. The primary permit condition being considered is condition **3.2.1**:

**3.2.1 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.*

There are three key facets to this condition

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

With regards to this incident and these three bullet points. NRW have been provided evidence (pictures) that an emission has taken place. Through investigations, NRW are also satisfied that the operator had not implemented all appropriate measures. With regards to bullet point 3 NRW need to demonstrate a **"pollution"** has occurred, to confirm that this permit condition was contravened.

To determine whether the operator has breached the **"pollution"** limb of the EPR permit condition, we use 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—*

*(a) be harmful to human health or the quality of the environment,*

*(b) cause offence to a human sense, ...*

As part of the assessment NRW must take into account the impact (or potential) impact of the emission, not just on the environment but also on human health. The high pH effluent in question has the potential to cause serious injury. I would therefore argue that the events described above 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 member of the public using the footpaths adjacent to the pooling effluent. I believe that the test to determine whether this permit condition has been contravened has therefore been

met.

Non-compliances are assessed and scored based on potential impact to the environment, people and/or property. A potential minor injury or effect on human health would meet the criteria for a category three non-compliance. In this instance, a splash to face of effluent at pH 11 would likely result in a hospital visit. As such, this meets the criteria for a category two non-compliance, where there was potential for significant harm to human health. Consequently, the following non-compliance will be issued.

**Non-compliance:** A category 2 significant non-compliance is given for the un-authorized discharge of a polluting matter on to Taffs Mead Road on the 28/08/2023. Permit condition 3.2.1. **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 CCS2.**

### Root Cause

PBG held a site shut down in July 2023, as part of this shut down the inlet pipework to the screen had been removed to facilitate replacement of air actuated valves as part of the planned preventive maintenance (PPM). However, there was no PPM in place for checking the flanges or process fittings within the pumping station. Checking fixings is particularly important after they have been dismantled and reassembled, especially where they may be subjected to vibration which can lead to loosening. Failing to identify the risk posed from the pipework and fixings is the likely root cause which resulted in no control measures being put in place to mitigate the risk.

The pumping station has an ACO type drain positioned across the hard standing below the gate. However, this was ineffective at preventing the escape of effluent due to the nature of the failure. The potential failure modes need to be identified, which will allow an assessment of the effectiveness of any containment measures in place, such as in this case, a leak from a loose RJT on a pipe under pressure resulted in a 'jetting' of effluent which by-passed the containment measures.

PBG have provided several actions of improvement to be completed on the pumping station as a result of this incident. These have been listed below.

ID	Description
1	Redesign inlet pipe work to screen to remove RJTs and replace with flanges <ul style="list-style-type: none"> <li>• Install flange guards</li> </ul>
2	Install sheets between fence and screen, as a splash guard system
3	Create new monthly PPM for the pipe work <ul style="list-style-type: none"> <li>• Joints</li> <li>• Leakage</li> </ul>
4	Include the inspections of the ACO Drains, in routine checks. <ul style="list-style-type: none"> <li>• Clean &amp; debris free</li> </ul>
5	Create monthly PPM for pH probe in effluent sump
6	Review task list for routine PPM

7	Check connectivity of pH probe to SCADA
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During a site visit on the 06<sup>th</sup> of October, evidence of these actions being completed was seen. PBG had replaced the existing RJT's within the pumping station with flanges, flange guards were on order and will be fitted. Framework around the pipe work had been erected, with metal sheeting due to be fitted. This will form a screen over the pipework, which will act as an additional layer of protection.

**Action 2 – PB Gelatins 31<sup>st</sup> of October 2023:** Provide NRW with conformation when all the above improvements have been implemented.

#### Response

A response was received on the 27/12/2023. Details of each item and supporting information was provided in document '2023-12-20 Effluent discharge from pumping station CAR actions'. Items 1 and 2 were evidenced by photographs showing the new splash guard system and flanges with accompanying flange guards in place. Items 3 – 7 were evidenced with screenshots of the maintenance schedule displaying the maintenance tasks, including a description of the work and frequency of task. A screenshot of the SCADA system showed connectivity of pH probe. This action is considered complete.

With any permit breach, NRW will seek to identify the root cause, which will also be scored on its own merits. For the incident that occurred on the 28/08/2023 the root cause is likely to lie within the management system. Whereby the management system failed to recognise the risk of a leak occurring from pipework fixings and failed to minimize this risk with an appropriate PPM regime and control measures. As this management system failure also has potential to cause significant harm to human health or the environment, it also meets the threshold for category two non-compliance. Consequently, the following non-compliance will be issued.

**Non-compliance:** A category 2 significant non-compliance is given for the management system failing to identify and minimise the risk of pollution from operations and maintenance. Permit condition 1.1.1(a). **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 CCS2.**

PBG have put a monthly PPM regime in place for the pipework and fixings within the pumping station compound. PBG may also want to consider a secondary or sign off checking procedure. Whereby, if maintenance tasks result in de-coupling and re-coupling of pipework and fixings etc, a sign off check is completed by a separate competent person. This will provide an additional layer of protection, and assurance that equipment is in a satisfactory state following any maintenance. PBG should also consider the risks posed by any other RJTs or fixings across the entire plant to ensure the risks have been identified and control measures are in place. Please see action 3 below.

**Action 3 – PB Gelatins 31<sup>st</sup> of October 2023:** PBG to evaluate the risk posed by any RJTs or other fixings used elsewhere on the plant and ensure adequate controls are in place to manage any risks identified. Please provide NRW with a summary report of the findings and any measures taken. **Due 31/12/2023.**

#### Response

A response was received on the 27/12/2023. PBG have carried out an environmental based risk assessment on the areas which have the potential to cause environmental harm. This was evidenced with a spreadsheet

'Leak risk assessment Dec 23'. The risk assessment identified several areas that would benefit from improvements to further reduce any risk. A task list has been created with the task due to be actioned in Q1 of 2024. This action is considered complete, implementation of the improvements will be confirmed during on-going compliance assessments.

As an incident has occurred, PBG should also review their accident management plan (AMS), to re-assess its suitability in relation to accidents / incidents involving spillages / uncontrolled releases of effluent. Within the current AMS, there is no mention of how an incident involving effluent will be managed, however, there is a section detailing 'serious spillage' which broadly captures such events. This section states that spillages should be prevented from entering any surface water drains. It doesn't appear that this was conducted during the incident, it was stated that the PBG operative washed down the road using clean water. This would have further aided the effluent escaping to the surface water drains. As part of the AMS review, PBG should ensure staff are fully trained and aware of the AMS procedures.

**Action 4 – PB Gelatins 31<sup>st</sup> of October 2023:** PBG to review their accident management plan, and ensure staff have adequate training and awareness of the AMS procedures. Please provide NRW with a copy of the reviewed AMS and confirmation of staff training. **Due 31/12/2023.**

#### **Response**

A response was received on the 27/12/2023. As with Action 1, consultants have been engaged to provide support on amending the AMP and providing appropriate training to staff. An extension to the deadline for action 4 was requested by PBG on the 06/11/23 and granted, with the new deadline extended to the 29/02/2024. Action 4 is considered ongoing and will be re-visited upon completion.

**For the offences identified within the CAR form a warning letter will be issued, a copy of the letter can be found attached to this CAR form.**

There have been two incidents within the last year and half that have resulted in an authorised release of process effluent. As discussed on the 06<sup>th</sup> of October, management of effluent will be a priority topic for future compliance audits. In preparation for this, it is advised that PBG undertake a full assessment of their effluent system, including both assets and procedures, ensuring management of process effluent is robust.

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](mailto: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](mailto: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.