

Compliance Assessment Report CAR_NRW0041770

Permit being assessed: XP3830UR.

For: Haverfordwest Creamery, **held by:** The First Milk Cheese Company Ltd

At: Haverfordwest Creamery Pembroke Road , Merlins Bridge, HAVERFORDWEST, Dyfed, SA61 1JN.

Type of assessment: Audit,

Reason: Routine.

On: 18/04/2023 between 11:00 and 16:00.

Parts of permit assessed: 1.0, 2.0, 3.0, 4.0.

NRW Lead Officer: Richard Taylor, accompanied by Kelly Sherratt.

Report sent to: Neil Shawcross, H&S Manager, on 30/06/2023.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
A1 - Specified by permit	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
0	0

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?

No action required.

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

PLEASE NOTE - this is an amended CAR form to 2023 04 18 XP3830UR CAR_NRW0041770 sent to site on 16th June 2023 and will sit alongside the original copy within Public Records.

The amendments are to;

Para 3. Holding tank age correction

Pic 6 Action included to obtain the tank specification and confirm this is double skinned/has integrated secondary containment.

Pic 11, correction of typo.

Pic 12, Update of wording.

Page 7 - correction to why AOL replaced the previous contractor.

This has been updated on NRW systems and sent to site on 30th June 2023.

Site Inspection Report

Site Visit – 18th April 2023

The First Milk Cheese Company limited

Permit EPR/XP3830UR

1.0 Introductions

Neil Shawcross (H&S Manager), James Cherry (Group Environmental Manager) Kelly Sherratt NRW SC Industry team leader, Richard Taylor NRW (Interim site inspector).

NRW met with members of 'Aquaoperations' (AOL) who have been employed by site to run their effluent treatment plant since the caustic spillage from 20th Nov 2022 detailed in CAR report CAR_NRW0041277 issued on 20/02/2023.

2.0 Actions from Previous CAR forms

One previous action listed as Action 40259/02 on CAR form CAR_NRW0041277 dated 20/02/23 was due to be complete by 18th Nov 2022. This required site to confirm the existing drainage arrangements and identify options for improvement. We noted that this was a reactive step rather in the event of a major spill rather than a proactive one. The Site have installed new kerbing in the South and East boundaries consisting of a approx. 10cm concrete lip as shown in Pic 2 above. Drainage channels ring the site and were seen to be adequate in containing and diverting small spills and site rainfall but were questionable in the event of anything larger. In principle the spillage should be contained at source through primary and secondary containment and not by relying heavily on tertiary containment.

3.0 Existing tanks and bunds

New concrete kerbing can be seen at the foot of the metal railings running into the distance. (pic 1). This was seen to be sufficient to capture small spills or drips, but not adequate to hold major leaks or catastrophic collapses of the concrete tanks adjacent. Pic 2 below, the existing milk silos have no secondary containment. Instead, there is primary and tertiary containment only.



Pic 1. New concrete kerbing has been installed at the perimeter of the ETP flotation tank. This is sufficient to catch drips and small leaks but will be overwhelmed by larger spills and catastrophic failures.



Pic 2. Existing milk silos, single skinned without secondary containment on a raised platform. Tertiary drains take spills to the ETP.

Sudden catastrophic failure of one unit could affect human health and the wider environment. Site needs to justify why no secondary containment is present and carry out a feasibility study into erecting suitable secondary containment around these structures.

The tanks are also vulnerable to accidental collision from visiting vehicles where a secondary



Pic 3 Existing tanks showing single skin, no secondary containment. Site relies upon perimeter tertiary containment to collect spillages which are directed to the on-site Effluent treatment plant.

containment wall would offer protection.



Pic 4. Single skinned tanks without secondary containment. The tank is showing signs of rust and needs to be placed on a scheduled maintenance regime.



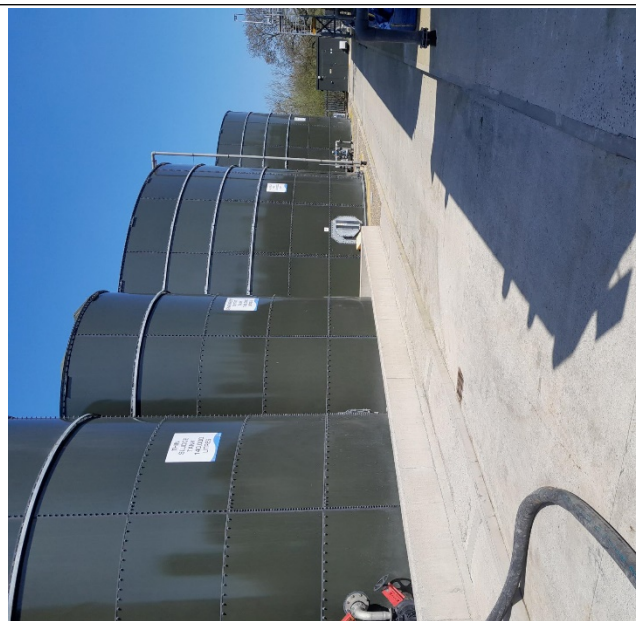
Pic 5. Temporary secondary containment used in the oil store. Bund should be routinely emptied to ensure space is left in the bund in the event of a failure.



Pic 6. Nitric acid tank. Clarification is sought from site regarding the design specification of this unit as it reportedly has an integrated secondary bund. ACTION - Site to send unit spec to confirm ASAP. Signs of concrete corrosion can be seen. A hose is left to coil on the floor where it could degrade in any residual acid left there.



Pic 7. Above, this tank had a half bund wall for protection against traffic but no secondary containment.



Pics 8 & 9; Permastore balance tanks on the effluent treatment plant. No secondary containment. Annual NDT structural integrity tests are carried out. Site relies upon tertiary collection of spills but does not account for a major collapse.

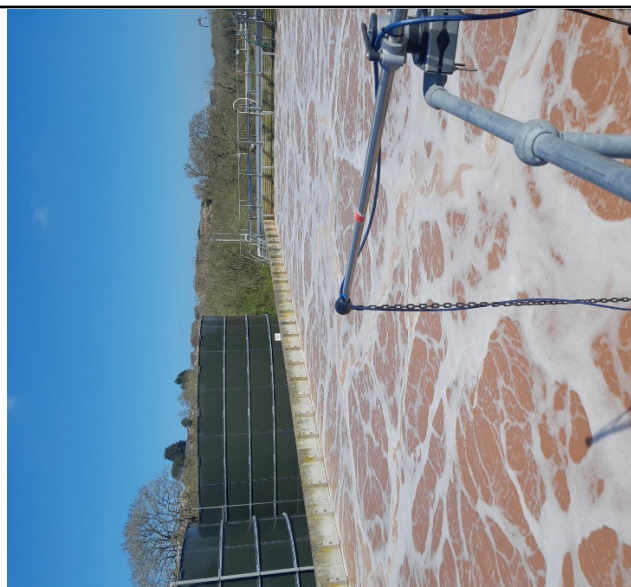


Pic 10. The ETP aeration tank 'lanes' made from pre-stressed concrete panels.

Regular concrete integrity checks are required for these units plus checks on the status of the internal metal strengthening bar.

Freeze-thaw frost expansion effects can damage the infrastructure. Regular scheduled inspection is therefore required by a trained engineer.

Vegetation needs to be cleared back as the weak acid levels in the plants cause long term damage to



Pic 11. Surface of the ETP aeration tank with olive green Permastore balance tanks behind.

concrete structures.	
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Integrity Inspections should be scheduled for these tanks through the site EMS and signed off by a qualified structural engineer.	
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The containment for tanks and bunds fall under permit condition 3.2.2 where 'All liquids in containers, whose emission to water or land could cause pollution, shall be.

- i. provided with secondary containment,
- ii. unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container'.

Because the tanks throughout site were seen to have the potential to cause damage to human health and the wider environment in the event of sudden and catastrophic failure, site needs to justify why there is no secondary containment for the tanks to satisfy point ii above. The following is a list of actions site needs to satisfy to meet permit requirements.

Action Plan for Tanks and Bunds

- 1. Justify what appropriate measures are in place to meet point ii above where secondary containment is not used on site tanks.**
- 2. Carry out a risk assessment for the current on site tanks focussing on the potential affects to human health and the environment in the event of a sudden catastrophic collapse of any tank.**
- 3. Carry out a feasibility study into building appropriate secondary containment around existing tanks.**
- 4. Widen the existing annual NDT tests on the Permastore tanks to include integrity checks on the prestressed concrete tanks in the ETP and all site tanks not already included. This should be periodically signed off by a qualified structural engineer.**
- 5. Place all site tanks (milk silo's, nitric acid tanks, ETP Permastore tanks) on a routine schedule of maintenance and repair which is signed for on completion.**
- 6. The deadline for the above issues should be completed by 1st October 2023. Site to request more time if needed.**

3.0 Follow up actions from Caustic spill Nov 2022.

A presentation of the events leading up to and after the event was given by the new subcontracted company with representatives of First Milk in attendance. As the regulator, we were concerned with the site records, management chain, contingency plans and improvements made after the incident to prevent a reoccurrence. We inspected training records, the management chain, and the notification process alongside contingency plans. These were checked on the day of the inspection and found to have been improved.

One addition to the holding tank installed upstream of the ETP is a trial of pH and turbidity sensors– (see Pic 12 below). These would enable the operator to measure the strength of the effluent prior to it entering the ETP. If adopted, this would strengthen the sites ability to detect and control the effluent. Continuous readings for turbidity and pH were seen. The unit also has the ability to provide continuous volume flow.

The site has also introduced a critical set point management system (BOF-005-MM9). Tool-box talks have also been introduced to relevant staff. Labelling and checking systems are now in place to prevent a similar occurrence. The measures in place are seen as improvements to the old system and should prevent a future repeat incident.

The last CAR form stated that this inspection would review the case and determine the steps which occurred to produce this event and examine if there were any measures needed to ensure that the incident cannot be repeated. The presentation included a timeline of the event. There was reportedly 12,000ltrs of caustic soda released from a pipe at the cheese plant from a valve which should have been marked as being offline but due to Human error was opened. The release happened overnight between 20th and 21st Nov 2022. There was a limited volume of sulphuric acid onsite together with incorrect pump sizes for effective dosing which did not neutralise the high pH level at the time. The incident happened during the change over period from the old contractors JEMS to the new AOL.

Indications that the release was beginning to effect the plant started at 6am. By 8am site staff started to arrive and manage the situation. No release of effluent was made to the W2 outlet to the Western Cleddau catchment area. 'Poor' effluent was tankered off site for disposal. Readings around the time broke the permit ELV's where penalty scores were applied and itemised on a previous CAR form. NRW see the improvements in place are strong enough to prevent a repeat incident.



Pic 12. The sub surface holding tank in position upstream of the ETP. (installed at the same time the ETP was constructed). Site was undergoing trials of new probes in the effluent flow which show pH, turbidity, and flow rate into the ETP.

Once the trial has been adopted, the new measures seen in place are an improvement to the future prevention of a repeat of the caustic incident from November 2022.

4. Tour of Effluent Treatment Plant.

New site sub-contractor for the Effluent treatment plant AoL were on hand to talk NRW through the process from the new inlet monitoring station to the final effluent produced.

One tank (pic) showed rusting and was being bypassed at the inspection. The bypass consisted of several connecting pipes joined together with clamp attachments. The pipes were reported to be strong enough to withstand a pressure of 10 BAR, however, on inspection, a smaller joining pipe was being used which was inferior in quality and thought to be rated at 6 BAR. This is the weakest link in the chain, and the chain has

many connections which exacerbate the potential failure of the current temporary bypass system.

Site needs to restore the rusting tank to operational use ASAP so that the previous robustness of the system can be re-established. If the tank is to be taken offline the bypass in place needs to be more robust with the whole pipe system rated at 10 BAR.

Action 7– Site to repair the rusting tank and restore it to the system – or upgrade the bypass system to 10Bar. Inform NW when either choice has occurred.



Pic 13 above shows the 'weak' 6 BAR rated connection pipe in the temporary bypass system.

Pic 14 Top right – Permastore tank in the ETP in place since 18th Dec 2013 shows signs of aluminium rust at the bottom shown as a grey bare metal band. This needs maintenance and repair going forward especially as the tanks are approaching 10-years-old.

Pic 15 Bottom right – start of the bypass line with fitted pump. Site needs to decide to either restore the bypassed tank or upgrade the robustness of the bypass line.



5. Tour of First Milk site

The ISO containment area was equipped with a rear sloping floor to contain spills as well as a roof to divert rain from the effective floor which acts as a bund. This area is fit for purpose and meets the 'How to comply with your environmental permit' V8 p30.

There were no odours on or off site, no presence of uncontrolled waste, invasive weeds, pests, vermin, or

excessive noise witnessed by NRW Officers during the inspection.

6. Air Quality Returns

Site submitted their Air 1 form on 29th March 2023. The sampling occurred on 24th Jan for A1 and A2 stacks and 22nd March 2023 for A3 and A4. No limits are set for A1, A2 and A3 stacks but a limit of 95mg/l is set by permit variation V006 for A4 NO2 from the 2.7MWth CHP engine until Dec 31st 2023. Site recorded a figure of 89mg/l against a permit limit of 95mg/l. No uncertainty factor was reported. Uncertainty factors are required in future as these have a bearing on whether the site has breached the limit or not.

Action 8. Ensure uncertainty factors are included in future reported returns.

7. Other Issues

Soil sampling plan. The requirement for a periodic 10-year soil plan under IC8 of Permit variation V006 was due on 4th June 2023. A 3-month extension was requested and granted at the site meeting to allow site to submit a robust report. This means that site permit condition **IC8 deadline is now 1st October** in line with the other actions listed above.

EUETS – (UK ETS). Site is exploring measures to drop out of the system by introducing physical locks which cannot readily be moved. Site can contact NRW EU ETS team for further input and GHG permit enquiries. ghghelp@cyfoethnaturiolcymru.gov.uk

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.