Our Ref: EPR/XP3830UR

Mr Neil Shawcross
The First Milk Cheese Company Limited
Haverfordwest Creamery
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Merlin's Bridge
Haverfordwest
Pembrokeshire
SA61 1JN

Date: 16th January 2024

Dear Mr Shawcross

EPR- XP3830UR First Milk (Haverfordwest Creamery) Improvement Conditions Review

Thank you for submitting First Milk's response to discharge the requirements of Improvements Condition (IC) 7 of the environmental permit EPR/XP3830UR.

- Email received on 18/05/2023 from Neil Shawcross (First Milk) with response to IC7.

Documents received from First Milk:

- Odour Management Plan v3.pdf.

As you are aware, ICs were included as part of a recent permit review and variation (V006 issued 08/04/2022) following the publication of the revised Best Available Techniques (BAT) Reference Documents (BREF) for Food, Drink and Milk Industries. Improvement Conditions have been included to bring the site up to the necessary standard.

During the permit variation V006, an Odour Management Plan (OMP) was not provided as part of the requested information. Therefore, IC7 was included in the environmental permit requiring an Odour Management Plan (OMP) to be submitted to NRW for review.

IC7 - The Operator shall submit to Natural Resources Wales an updated written procedure(s) following additional investigatory work describing how they intend to meet the following BAT requirements in accordance with requirements specified within:

• BAT Conclusion 15 of the Food, Drink and Milk Industries BRef Document (EU 2019) – In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system, that includes all of the following elements:

- a protocol containing actions and timelines

- a protocol for conducting odour monitoring. It may be complemented by measurement/estimation of odour exposure or estimation of odour impact.

- a protocol for response to identified odour incidents e.g. complaints

- an odour reduction programme designed to identify the source(s), to measure/estimate odour exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.

OMPs should demonstrate your competence and commitment to controlling odour. It should be clear that you understand the odour potential of any process, and that you have systems in place to manage that risk effectively.

We have reviewed the response provide in relation to IC7 with assistance from NRW's Air Quality and Noise Team (AQNT).

Our review has been undertaken using relevant guidance including: the Best Available Techniques Reference Document for the Food, Drink and Milk Industries (2019); Best Available Techniques Reference Document for Waste Treatment (2018); H4 Odour Management How to comply with your environmental permit (H4), and the Environment Agency's Odour Management Plan Template Final V2 05/05/21.

The OMP v3 submitted to NRW contains insufficient detail to discharge IC7. Please see the following comments for your consideration (an updated OMP will be required):

1. Site and receptors

- The OMP does not contain an aerial photograph or map of the site, nor have nearby receptors been identified (the OMP only briefly mentions that there are sensitive receptors at Merlin's Bridge (section 5.B.1.2)).

- All receptors that are likely to be impacted by operations at the First Milk site should be included in the OMP. Receptors should be categorised in terms of land use (residential, commercial etc), distance to site boundary or their sensitivity to odour (commercial, housing, place of worship, pub etc) as required by H4.

- It is recommended that First Milk tabulate for each receptor - the land use, the direction from site, approximate distance to site boundary/odours sources and sensitivity to odour. This will allow First Milk to rank the sources and target resources when odour complaints are received, or potentially odorous processes are to be undertaken.

- A wind rose chart showing the distribution of wind speed and wind direction around the site over a period of time is recommended. This information is important to assessing risk at the receptor locations.

2. Sources

The OMP is focused on the potentially odorous emissions from the Creamery itself and the Effluent Treatment Plant (ETP).

The OMP looks at the Creamery and the ETP separately, section 5 Part A deals with the Creamery and Part B the ETP.

Creamery

It is noted that Section 5-part A gives a comprehensive overview of the creamery operations and concludes no significant odour sources. Section 5-part A (paragraph 5.A.2.2 in particular) also outlines control measures in place to ensure odours and minimised. Information and conclusions present appear reasonable for the creamery.

ETP

- The OMP must identify all odour sources on site (including potential odour sources from other on-site activities/processes/cleaning undertaken, spillages and breakdowns at the site etc) and how odour is prevented/reduced. The OMP should also consider all odorous materials entering and leaving the site.

- The identification of likely spillage areas, kit available to clean up any spills, timeframe for action is recommended to be included in the OMP.

- As previously stated, the OMP should include an aerial photograph of the site/site map showing the location of nearby sensitive receptors as well as the location of the odour sources present on site.

- The OMP does not highlight the maximum quantity stored/processed in tanks/vessels, timings of transfers etc. It also does not describe the odour from each of the sources (intensity, characteristics, hedonic score). This would help the investigation of offsite odours to quickly allocate resources to resolve as required in H4 guidance.

- The OMP does not state what the review frequency of this document is (e.g., reviewed annually), this must be included.

3. Mitigation – Appropriate measures/Best Available Techniques

The Creamery

- First Milks mitigation - **the site does not have any odour abetment installed to deal with emissions from the cheese and whey making process (identified as having low odour potential). The plant is**

designed to minimise any odour emissions and several control measures are in place.

ETP

- For the ETP, the OMP details the main odour sources, however very little information is presented relating to operation or mitigation. Full details of all mitigation and control measures for each identified odour source must be provided.

The following paragraphs address each potential significant odour source/process

Treating influent from the creamery in the DAF unit

First Milks mitigation - **Enclosed DAF unit, moveable cover to allow for maintenance.**

- There is no indication in the OMP how the conditions of the effluent within the DAF are controlled e.g. the oxygen content (whether pure oxygen is used), acidity, temperature etc to avoid anaerobic conditions. It also excludes residence times. This may be included in the EMS for the ETP but no reference to any documentation is provided.

- The aeration system will need to be maintained and therefore its failure should be included as an abnormal event.

- Trigger values or approach to trigger values for key parameters within the DAF would be a useful indicator for contingency measures rather than reliance on reactive measures.

Settling of influent within aeration lanes

First Milks mitigation – **No physical control measures/mitigation identified in the OMP.**

- There are no details in relation to how this odour source is managed or if there is any mitigation or control measures associated with this identified odour source.

Operation of sludge thickener

First Milks mitigation – **filter on sludge thickener drum**

- details in relation to how this form of mitigation is managed or maintained have not been provided.

During transfer of sludge from the sludge tank to road tanker

First Milks mitigation – **Charcoal filters on sludge tank outlet valves**

- Details in relation to how this form of mitigation is managed or maintained have not been provided.

- It is unclear how effective the charcoal filters will be. The OMP lacks the information to support the effectiveness of the filters based on the capacity of the tank, how the head space is maintained within the tank to

ensure the filters do not become overwhelmed. It would also be useful to have an indication of the replacement period which will be associated with the odour removal efficiency from the polluted air.

- It is unclear whether First Milk are responsible for the replacement of the charcoal filters and if so, do they keep a stock onsite or have access to spares within a designated period e.g. 12/24 hours etc.
- There is no indication within the OMP of the location of the transfer process, timings etc, neither is there a confirmation whether the transfer is undertaken in one location and associated with one process i.e., the transfer of sludge.

4. Odour Monitoring

- The creamery - the OMP states that regular odour monitoring in the form of sniff testing will be carried out at the fence line, paragraph 5.A.3.3 states: "...To this end a 'SHE-inspection' has been created which constitutes a site wide external walk of the plant checking for odour at key location around the site perimeter". This seems a reasonable measure, however, this SHE-inspection has not been included and no details regarding frequency, location of checks, route etc. have been provided in the OMP.

- The OMP states that the site has a weather station installed, and this will be checked before any activities that could give rise to odours are undertaken, this is a reasonable measure, however, the OMP doesn't state what parameters are recorded.

- The on-site weather station records the meteorological conditions at the ETP and are recorded daily, as previously stated the full list of met conditions recorded have not been provided. In addition, details about the timing and frequency that the data is recorded have not been provided.

- No formal sniff test procedure is outlined in the OMP. This procedure and recording form in line with H4 guidance and must be included in the OMP.
- During normal operation of the ETP, Odour levels are recorded on the BOF-002 – Daily operations log – this is completed twice daily by the operations staff by means of a sniff test. This is a useful indication of how the plant is operating however, the sensitivity of smell of those working within the plant could be impacted. It is recommended that employees not working within the process areas are trained to undertake informal sniff tests to avoid this issue, or as H4 suggests, consider members of the community.
- H4 outlines that monitoring results will be improved if observers have been trained and understand their own sensitivities. The OMP doesn't describe the 'appropriate and adequate training' for staff involved in the daily/weekly sniff tests, nor does it identify whether staff are assessed to establish their sensitivity. The reliance on more experienced members of site management could be problematic if the experienced person has not undergone sensitivity testing such as the use of a formal 'sniff test' such

as Threshold Test with n-Butanol - Sniffin' Sticks | MediSense (smelltest.eu).

- There is no indication within the OMP of a route that is followed during the daily sniff testing to consider all the odorous sources of the ETP and any other sources which are currently excluded from the OMP.
- The section of the OMP titled 'Elevated Odour Levels' details the measures that the site will take in the event of any elevated levels of odour on-site or as reported from an off-site person, a full list of actions that the site will take has been detailed in full, these seem reasonable.
- The BREF states that the OMP must include an odour prevention and reduction programme which should highlight improvements to decrease the odour impact potential from the activities on site. Update the OMP accordingly.
- Consider the inclusion of information on the odour reduction programme designed to identify the source(s), to measure/estimate odour exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.

5. Odour Reporting

- The OMP includes a section titled 'Reporting Measures'. This section outlines how any instance of an elevated odour level will be reported. The operator has listed these instances as either a minor, medium or major event, and further states that each event has a deadline for rectification, however, the timings have not been included in this OMP.
- For the creamery, the OMP contains a section on emergency planning and concludes that as the site operates 24/7 the risk of an incident occurring that would result in the loss of control of a process that would cause unacceptable impact to nearby receptors is low.
- Complaints Reporting – First Milk has indicated that complaints will be recorded onto an online incident reports database (CAT TOOL) within 72 hours. There are no details on timings for investigating complaints e.g. immediately investigate upon receipt of complaint, within 2 hours for reporting to NRW etc. A copy of the odour complaints recording form must be included in the OMP.
- Community Engagement – It is not clear how First Milk will communicate back any findings of its odour investigations to the local community. It is also unclear whether First Milk hold any community engagement/liaison meetings where odour complaints and improvements to odour control can be discussed. This is a recommendation.

6. Maintenance and responsibilities

- The OMP is lacking details in relation to the maintenance and review of the OMP. Some examples of information the OMP must include are:
    - Who is responsible on site and what training do they receive to ensure competent.

- Where is the OMP stored?
- Who is trained to carry out odour checks?
- What training have they received and how often is training carried out**.**

- Clear maintenance procedures for odour control equipment must be in place. There is insufficient detail in the OMP.
- The OMP must provide titles, sources and publication dates of all guidance referred to when writing this OMP.

7. Emergency plans at the ETP

- General Issues – in this section the operator has considered any action or general issue which could result in the loss of an odorous substance that could cause an impact at receptors. Outside of normal working hours the OMP states that a site representative would be at the ETP within 1.5 hours. The nominated representative would then call operations and the maintenance manager by telephone, no further details have been provided regarding what actions could be taken, nor has a timeframe been provided for any actions.
- Abnormal Meteorological Conditions – This section reiterates previous information provided in the OMP. As the site have a dedicated weather station at the ETP, activities that could give rise to elevated levels of odour will not be undertaken under certain weather conditions (see section 4, odour monitoring for additional details).

Please review the comments above and update the OMP as necessary. You will need to review and submit a response/updated document to NRW by the 16/02/2024 (unless otherwise agreed in writing with NRW).

Yours sincerely

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Croesewir gohebiaeth yn Gymraeg a byddwn yn ymateb yn Gymraeg, heb i hynny arwain at oedi.

Correspondence in Welsh is welcomed, and we will respond in Welsh without it leading to a delay.