

Permitting Decisions- Variation

We have decided to grant the variation for Muller Dairy operated by TM Telford Dairy Limited.

The variation number is EPR/SP3200SY/V002.

The permit was issued on 20/06/2024.

The permit for the combined heat and power plant has been varied to add a Section 6.8, Part A(1)(e) activity and a Section 5.4 Part A(1)(a)(ii) activity. The installation is an existing facility, producing yogurts and yogurt drinks for the food industry. The expansion of operations at the site has led to an increase in the quantity of milk received, above the threshold of 200 tonnes per day, and an increase in effluent treatment capacity, above the threshold of 50 tonnes per day, and the scheduled activities now need adding to the permit.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision-making process. It

- highlights [key issues](#) in the determination
- summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account
- shows how we have considered the [consultation responses](#).

Unless the decision document specifies otherwise, we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice.

Key issues of the decision

Air quality assessment

For the purpose of this permit variation application, the operator has assessed emissions of oxides of nitrogen (expressed as NO₂) to air from the natural gas fired combined heat and power plant (CHP) and the natural gas fired boiler against the relevant environmental standards and the predicted impacts on both human receptors and ecological sites using detailed air modelling assessment.

The operator's assessment of the impact to air quality is set out in the revised report (Telford Dairy CHP & boiler - Air Emissions Risk Assessment (AERA)), submitted on 10/01/24.

The Operator has assessed the installation's emissions to air using the Atmospheric Dispersion Modelling System (AERMOD). The model used meteorological data collected at Shawbury Airport, which is located approximately 19km north-west of the site.

We have reviewed the applicant's air dispersion model and its selection of input data, use of background data and the assumptions made to inform the assessment. We have also carried out a screening exercise using an air dispersion screening tool developed by the Environment Agency to confirm the quality of the applicant's model predictions.

Assessment of emissions criteria

The Environment Agency considers emissions to be insignificant if process contributions (PC) are:

- Less than 1% of the relevant environmental standard (ES) for long-term PCs; and
- Less than 10% of the relevant ES for short-term PCs.

The long term 1% process contribution insignificance threshold is based on the judgements that:

- It is unlikely that an emission at this level will make a significant contribution to air quality; and
- the threshold provides a substantial safety margin to protect health and the environment.

The short term 10% process contribution insignificance threshold is based on the judgements that:

- spatial and temporal conditions mean that short term process contributions are transient and limited in comparison with long term process contributions; and
- the threshold provides a substantial safety margin to protect health and the environment.

Where an emission cannot be screened out as insignificant at the first stage, it does not mean it will necessarily be significant. For pollutants that do not screen out as insignificant the exceedances of the relevant ES are assessed by considering the PEC (Predicted Environmental Contribution) which takes account of the background pollutant concentrations. We consider the environmental risk not to be significant where the following criteria are met:

- the short-term PC is less than 20% of the short-term ES minus twice the long-term background concentration; and
- the long-term PEC is less than 70% of the long-term ES.

For SPAs, SACs or Ramsar sites:

If emissions meet both of the following criteria, they're insignificant and don't need further assessment:

- the short-term PC is less than 10% of the short-term ES for protected conservation areas; and
- the long-term PC is less than 1% of the long-term ES for protected conservation areas.

PEC is not calculated for short-term targets. If short-term PC exceeds screening criteria, detailed modelling is required.

Where the long-term PC is greater than 1% and the PEC is less than 70% of the long-term ES, emissions are insignificant.

Where the long-term PEC is greater than 70% of the long-term ES, detailed modelling is required.

For local nature sites:

If emissions meet both of the following criteria, they're insignificant and don't need further assessment:

- the short-term PC is less than 100% of the short-term ES; and
- the long-term PC is less than 100% of the long-term ES.

PEC is not calculated for local nature sites. If PC exceeds screening criteria detailed modelling is required.

Where an emission is screened out in this way, we would normally consider that the applicant’s proposals for the prevention and control of the emission to be acceptable. However, where an emission cannot be screened out as insignificant, it does not mean it will necessarily be significant.

For those pollutants which do not screen out as insignificant, we determine whether exceedances of the relevant ES are likely. This is done through detailed audit and review of the applicant’s air dispersion modelling, taking background concentrations and modelling uncertainties into account.

Where the PC is greater than these thresholds, the assessment must continue to determine the impact by considering the predicted environmental concentration (PEC).

The PECs can be considered ‘not significant’ if the assessment has shown that both the following apply:

- proposed emissions comply with associated emission levels (AELs) or the equivalent requirements where there is no AEL; and
- the resulting PECs won’t exceed 100% of the environmental standards.

Assessment of impacts of air emissions on human receptors

The predicted air quality impact, as detailed in the applicants’ air quality assessment, is shown in Table 1 below. The receptor with the highest identified process contribution (R5) has been assessed to represent the worst-case scenario. Receptor R5 is located on Granville Road, adjacent to the installation boundary.

Table 1 – H1 Air quality screening NO₂ results at most impacted receptor

Pollutant	ES (µg/m ³)	PC (µg/m ³)	PC as % of ES	Background (LT) (µg/m ³)	PEC (µg/m ³)	PEC as % of ES	ST ES minus 2 x LT background (µg/m ³)	PC as % of ST ES minus 2 x LT background
NO ₂ (LT) ^[1]	40	2.6	6.5	18.9	21.5	53.75		
NO ₂ (ST) ^[2]	200	21.3	10.7	37.8 ^[3]			162.2	13.13

Notes

¹ Long-term (annual mean)

² Short-term (99.79thile of 1-hour means for NO₂)

³ The short-term background is considered to be twice the long term background

Table 1 shows that the long-term (annual) PC is greater than 1% of the environmental standard (ES). The maximum modelled annual mean NO₂ PC is 2.6 µg/m³, which is 6.5% of the long-term standard and cannot be screened out as insignificant. As such further assessment was required to determine the impact of

the long-term emissions on the PEC. The long-term PEC is below 70% of the ES, and as such we consider that the long-term emissions of NO₂ are unlikely to breach the long-term ES.

Table 1 also shows that the short-term PC is greater than 10% of the ES. The maximum modelled hourly mean NO₂ PC is 21.3 µg/m³, which is 10.7% of the short-term standard and cannot be screened out as insignificant. Therefore, further assessment was required to determine the impact of the short-term emissions on the PEC. The short-term PC is less than 20% of the short-term ES minus twice the long-term background concentration, and as such we consider that the short-term emissions of NO₂ are unlikely to breach the short-term ES.

We agree with the applicant's conclusions that the onsite combustion processes are unlikely to have a significant impact in obtaining the air quality standards for NO₂ at the discrete receptor locations in the area.

Assessment of impacts of air emissions on ecological receptors

The air dispersion modelling report included an assessment of the impacts on the ecological receptors within the relevant screening distances. The installation lies within 10km of Midland Meres & Mosses Phase 2 Ramsar (receptor ER6), and within 2km of Muxton Marsh Site of Special Scientific Interest (SSSI) (receptor ER5), plus a number of Local Wildlife Sites (LWS) and Local Nature Reserves (LNR), the nearest of which is Donnington Freehold & NE Telford LWS (receptor ER2). The impacts from NO_x, nutrient nitrogen and acid deposition were assessed.

The predicted air quality impact, as detailed in the applicants' air quality assessment, is shown in Table 2 below. The receptors with the highest identified process contribution have been assessed to represent the worst-case scenario.

Table 2 – H1 Air quality screening NO_x results at most impacted receptor

Receptor	Pollutant	ES (µg/m ³)	PC (µg/m ³)	PC as % of ES	Background (µg/m ³)	PEC (µg/m ³)	PEC as % of ES
ER6	NO _x (LT) ^[1]	30	<0.1	0.1			
	NO _x (ST) ^[2]	75	0.2	0.2 (0.27) ^[3]			
ER5	NO _x (LT)	30	0.3	0.9 (1.0) ^[3]	15.7	16.0	53.3
	NO _x (ST)	75	1.9	2.5			
ER2	NO _x (LT)	30	1.3	4.4			
	NO _x (ST)	75	13.1	17.5			

Notes

[1] Long-term (annual mean)

[2] Short-term (Daily mean)

[3] Corrected PC (PC as % of Cle shown incorrectly in applicant's air quality assessment).

Table 2 shows that long-term PCs of NO_x are below the significance screening threshold of 1% of the NO_x long-term critical level, and short-term PCs of NO_x are below the significance screening threshold of 10% of the NO_x short-term critical level, at all the receptors within European sites requiring assessment. Long-term and short-term PCs of NO_x are also below the significance screening threshold of 100% of the NO_x long and short-term critical level, at all local nature sites requiring assessment.

However, the long-term PC of NO_x for the SSSI is 1% of the NO_x long-term critical level and cannot be screened out as insignificant. Therefore, further assessment was required to determine the impact of the long-term emissions on the PEC. The long-term PEC is below 70% of the NO_x long-term critical level and as such we consider that the long-term emissions of NO_x are unlikely to breach the long-term critical level.

In addition, the applicant's assessment showed that the long-term predicted PC of NO_x deposition, as both nutrient nitrogen and pollutants responsible for acidification, are below the significance screening threshold of 1% of the relevant critical load at all the receptors within European sites, and SSSI, requiring assessment, and below the significance threshold of 100% of the relevant critical load at all the receptors within local nature sites requiring assessment.

We agree with the applicant's conclusions that the impacts are considered to cause 'no likely significant effect' to the Ramsar and 'no likely damage' to the SSSI and LWS.

In addition, in accordance with Table 2 of AQTAG14 ([link](#)), emissions from combustion processes with a combined input 5 -10MWth (in this case 7.45 MWth) are only relevant where the European site or SSSI is within 1.5 km, and the local nature site is within 100 metres, of the emission. The closest SSSI is approximately 1,145 metres from the emissions and is therefore relevant. However, the closest local nature site (in this case a LWS) is approximately 245 metres from the emissions and the closest European site (in this case a Ramsar) is over 9 kilometres from the emissions. Therefore, it is not considered that the local nature sites or European sites are relevant for assessment under this guidance.

Conclusion

We agree with the Operator's conclusions that the results of the dispersion modelling indicate the impacts of the pollutant concentrations are not predicted to be significant at any of the sensitive human or ecological receptor locations.

The impacts were assessed on a conservative approach including the assumption that the boiler will be operating at full capacity and emit the maximum concentration of each pollutant throughout an entire year. As such the predicted pollutant concentrations are likely to be an overestimate of actual emissions.

The CHP plant and boiler plant are subject to the standard emission limits and monitoring requirements set in the Medium Combustion Plant Directive (MCPD). The limits and monitoring requirements for the boiler will be effective from the date of issue of the permit variation. Limits and monitoring requirements for the CHP plant have been carried over from the previous permit. Please see below for the limits and monitoring requirements added in relation to the onsite boiler.

Effluent treatment

Effluent arising from the onsite processes is treated on site via the effluent treatment plant prior to discharge at emission point W1 to Severn Trent Water's Rushmoor Waste Water Treatment Works, before discharge downstream to the River Tern. The effluent treatment plant comprises a dissolved air floatation (DAF) facility where effluent undergoes pH adjustment (auto dosing system) and coagulation of fats with a flocculant.

As part of the permit variation, the discharge has been incorporated into the permit as a scheduled activity (Section 5.4 Part A(1)(a)(ii)).

To support the application the operator undertook an impact assessment of the discharge to the river. The revised H1 tool and accompanying surface water risk assessment, submitted 26/04/2024, concluded that all substances with the exception of chlorine were screened out.

Improvement Condition IC8(a, b and c) has been included in Table S1.3 of the Permit, requiring the operator to identify and eliminate the chlorine exceedances in the receiving waters (see Improvement Programme section below for details).

In addition, the Operator advised that the process effluent sample was analysed for Bromide for which no EQS exists. As such, the operator is also required to consider Bromine, for which an EQS exists, in the proposed monitoring programme under IC8.

The operator has identified chloride as being present in the process effluent discharged to foul sewer at emission point W1. In-line with BATc 4, a chloride monitoring requirement has been added to Table S3.3 of the permit.

Improvement Programme

Deficiencies in containment and bunding have been identified in the operator's proposals which do not meet current guidance; therefore, improvement conditions IC1 to IC7 have been included in the permit to address these areas of concern, in accordance with CIRIA C736 (2014) guidance and Oil Storage Regulations.

Oil tank fill points are currently external to the bunds, with no measures in place to catch any oil leaks or spills. IC1 requiring the operator to demonstrate drip trays have been put in place has been added to the Permit to address this issue, with a deadline of 3 months from Permit issue.

Acids and alkalis are currently stored in the same bund at Tank Farm 1, which is not considered best practice, and following a review of the tank design for the sodium hydroxide and sulphuric acid at the effluent treatment plant, the operator has confirmed that although these tanks are integrally bunded, the bunding is not in full compliance with CIRIA C736. IC2 requiring the operator to submit proposals, with timescales, for separating and/or segregating the storage of acids and alkalis currently stored at Tank Farm 1 and providing secondary containment, has been added to the Permit to address these issues, with a deadline of 6 months from Permit issue.

The diesel tank on site is 'double skinned' but not 'integrally bunded' and so does not currently comply with the Oil Storage Regulations. The operator proposes to install secondary containment for this tank that is CIRIA C736 compliant. In addition, the operator is proposing to retrofit the diesel tank with high level and low-level alarms. IC3 has been added to the Permit to ensure these improvements are completed, with a deadline of 4 months from Permit issue.

The waste oil tank on site is also double skinned, rather than integrally bunded. This tank has never been used and the operator is investigating whether the tank can be removed from site. IC4 has been added to the permit requiring the operator to submit plans for decommissioning and removal of the tank, or for providing appropriate secondary bunding, along with timescales for actioning this work, for approval, within 3 months of Permit issue.

The site does not currently have written procedures for fire water containment. IC5 has been added to the permit requiring the operator to submit appropriate procedures for approval, within 3 months of Permit issue.

Following a review of the containment facilities at the site, in accordance with CIRIA C736, the operator identified several additional areas requiring improvement. These are detailed in Section 8.2 of the 'Containment Assessment', submitted February 2024. These improvements have been allocated into short, medium and long terms recommendations by the operator, to bring the facility up to a standard consistent with the 'As Low As Reasonably Practicable' (ALARP) requirements in C736 for existing facilities.

Improvement condition IC6 has been added to the permit requiring the operator to submit a report, including evidence that the recommendations and improvements detailed in key issues 1 to 5, as detailed in Section 8.2 of the document

'Containment Assessment', submitted February 2024, have been completed, within the proposed timescales, details of the works undertaken and copies of amended site procedures, within 12 months of Permit issue.

Improvement condition IC7 has been added to the permit requiring the operator to submit proposals for addressing key issues 6 to 9, as detailed in Section 8.2 of the document 'Containment Assessment', submitted February 2024, along with timescales for actioning the work, within 6 months of Permit issue.

As part of their supporting documentation, the operator submitted details of the chemical analysis for one sample of process effluent taken from emission point W1, completed by a UCAS accredited laboratory, in support of their surface water risk assessment. As outlined above, all substances with the exception of chlorine were screened out. Normally we would require analysis of at least 12 samples. In addition, analysis was undertaken for Bromide rather than Bromine. Improvement condition IC8 (parts a, b and c) has been added to the permit requiring the operator to demonstrate they understand the process effluent stream.

IC8(a) requires the operator to propose a monitoring programme, within 4 months of Permit issue, designed to fully characterise the wastewaters discharged from emission point W1, to demonstrate that the sample results submitted with the application are representative of the process effluent discharging at emission point W1, including Bromine, and to identify and eliminate the chlorine exceedances in the receiving waters.

IC8(b) requires the operator to submit an updated H1 assessment, and 12 months sampling data as agreed under IC8(a), within 13 months of approval of IC8(a), to demonstrate that the chlorine exceedances in the receiving waters, have been identified and eliminated. If significant/adverse impact is likely from emissions of any of the parameters, the operator is also required to submit proposals, with timescales, to ensure discharges have insignificant impact on receiving waters.

If required, under IC8(c) the operator must implement any improvements identified within the report approved under IC8(b), within 4 months of approval of IC8(b).

IC9 requires the operator to submit a water mass balance document for the 'cleaning in place' activity, in accordance with BATc 2, as this was not submitted during determination, within 3 month of Permit issue.

BAT Assessment

Conclusions for the Food, Drink and Milk Industries, were published by the European Commission on 4 December 2019. BATc 1 to 15 are General BAT Conclusions (Narrative BAT) applicable to all relevant Food, Drink and Milk Installations in scope, BATc 21 to 23 (inclusive) are relevant to dairies.

Comparison of Indicative BAT with key measures proposed by the operator		
BAT ref.	Indicative BAT	Key measures proposed
1	EMS	The site has an Environmental Management System (EMS) which is certified to the ISO14001 international standard. The EMS is audited internally and externally.
2	EMS – inventory of inputs & outputs to increase resource efficiency and reduce emissions.	In accordance with the requirements of the site's EMS; water, energy and raw material consumption and wastewater volumes discharged to sewer are regularly reviewed. Water, energy and raw material consumption inventories are maintained on site. The operator participates in the Energy Savings and Opportunity Scheme (ESOS) and track their energy use across the site, including sub-metered areas, in an ESOS navigator spreadsheet. Water inputs and effluent outputs are also recorded and regularly reviewed for operational efficiency purposes. The site is also a participant to a Climate Change Agreement, which has a number of variable targets based on production output and energy management techniques have been implemented to monitor and record energy consumption of the various activities undertaken at the site. The operator has a rolling scheme of continuous improvement with regards energy management, which is reviewed annually. The key performance indicators driving these improvements are listed and tracked in the onsite Carbon Desktop system. The operator actively tracks their raw material energy consumption. Waste residues (sludge from the process) are also tracked. The characteristics of this sludge are regularly tested by a subcontractor as it is transferred offsite for anaerobic digestion. The operator manages continuous improvement of raw material use, waste materials generation and monitoring of resource consumption through their ISO 14001 certified environmental management system
3	Emissions to water – monitor key process parameters	The effluent quality is monitored in accordance with the requirements of the discharge consent, and continuously monitored for pH, sampled for suspended solids and chemical oxygen demand.
4	Monitor emissions to water	The operator is not required to monitor emissions to water under BATc 4 as monitoring only applies in the case of a direct discharge to a receiving water body. The effluent

		discharge from the site is discharged to sewer where it is subject to treatment at the sewage treatment works prior to discharge to water.
5	Monitor channelled emissions to air	The Operator is not required to monitor emission to air under BATc 5 as the operator has confirmed that no drying processes are undertaken on site.
6	Energy efficiency	<p>The Operator has an energy efficiency plan which forms part of the sites EMS. The site operates an EMS which has been certified to ISO 14001. The site's energy efficiency plan operates within this EMS, which comprises the implementation of ESOS and CCA schemes to identify cost effective energy saving measures. The operator also uses an energy map to track energy use and operates a sustainable energy opportunity register, which is held within the Carbon Desktop system. The register lists energy saving opportunities and progress against them. Energy is metered per area, including production areas, allowing a detailed analysis of energy consumption. Annual key performance indicators (KPIs) include specific energy consumption which is measured and tracked. Targets for energy reduction are set on an annual basis.</p> <p>The site undertakes the following techniques to reduce energy consumption:</p> <ul style="list-style-type: none"> • burner regulation and control; • energy-efficient motors; • heat recovery with heat exchangers and/or heat pumps; • lighting; • minimising blowdown from the boiler; • optimising steam distribution systems; • reducing compressed air system leaks by regular maintenance; and • reducing heat losses by insulation (on the incubation tanks).
7	Water and wastewater minimisation	<p>Water consumption minimisation techniques employed at the site include:</p> <ul style="list-style-type: none"> • reuse of water in CIP processes. The pre-rinse water is recovered water from the previous clean; • optimisation of chemicals used in CIP processes; • drains are flushed with hot water and then foam cleaned with a hypof foam solution during weekly drain cleaning; • use of pigging systems to clean production pipelines; • raw material tanks are cleaned via high pressure cleaning; • use of dry-cleaning methods (catch pots with a mesh cover) to collect waste prior to water cleaning taking place; • use of triggers on hoses; • steam cleaners are used for deep cleaning of machinery;

		<ul style="list-style-type: none"> • closed loop water systems for chilled and hot water heating systems; • manual cleaning involves the use of pressurised nozzle hoses and steam cleaning equipment; • use of hot water and specialist detergent to improve cleaning efficiencies; • condensate (60%) is recovered in the hot-well of the boiler; and • steam generated from the CHP is recovered.
8	Use of harmful substances	<p>Cleaning chemicals in use at the site are approved for use in food manufacturing processes. Techniques to prevent or reduce the use of harmful substances include:</p> <ul style="list-style-type: none"> • optimisation of chemicals used in CIP processes is undertaken by proper selection of appropriate chemicals; • reuse of water in CIP processes. The pre-rinse water is recovered water from the previous clean; • use of dry-cleaning methods (catch pots with a mesh cover) to collect waste prior to water cleaning taking place; and • the equipment and process areas are designed and constructed in a way that facilitates cleaning and are situated on impermeable surfacing that drains to the ETP.
9	Use of refrigerants	The refrigeration system comprises ammonia which has a low global warming potential and does not have ozone depletion potential.
10	Resource efficiency	Waste streams are segregated at the site. All waste generated at the site is sent either for recycling, animal feed or use as energy from fuel; no waste is disposed of to landfill. Sludge that was previously sent for land spreading will be sent for offsite anaerobic digestion by the time the proposed increase in throughput occurs.
11	Emissions to water – wastewater buffer storage	Secondary containment exists only for tanks at the effluent treatment plant (ETP), at Tank Farm 1 and for the Diesel and Oil storage tanks. All other tanks on site (except the effluent balance tank) are provided with secondary containment via the effluent drainage, sump and balance tank along with an allowance for water to pond on roadway surfaces to the southwest of the site and retained due to the normal closure of Penstock Valve 2 (the tertiary containment). For the effluent balance tank itself the only containment is provided by the tertiary containment created in the southwestern corner roadway by the normal closure of Penstock Valve 2. Calculations presented in the document 'Containment Assessment', dated February 2024, indicate that for a failure of the 200m ³ effluent balance tank, the combination of remaining effluent system storage and tertiary containment storage is insufficient to contain the spilt inventory.

		<p>Muller has investigated the potential to install suitable secondary containment bunds around the existing tank farms, where they are present, and also to create a seal to the perimeter of the factory so that tanks within the factory are provided with secondary containment. Due to the complexity of pipework and other services within the main factory building and tank farms and the lack of space around the external tank farms, retrofitting such secondary containment is not practically possible. Instead, Muller have proposed to follow a programme of improvements that initially looks to utilise existing site infrastructure to extend the capacity of tertiary containment that could be provided and will eventually look to construct remote secondary containment at a suitable location on site.</p> <p>As detailed above, an improvement programme has been added to the Permit, requiring the operator to submit proposals to address the deficiencies identified with site containment and bunding, in accordance with CIRIA C736 (2014) guidance, along with timescales for implementation. Once the improvements have been implemented, the site will be in compliance with BAT 11.</p>
12	Emissions to water - treatment	<p>Within the ETP, Muller utilise adjustment of pH with caustic and coagulation / flocculation within the DAF plant to reduce emissions to water.</p>
13	Noise – management plan (NMP)	<p>The Operator included noise as part of their risk assessment in support of their application. The Operator has screened out noise emissions from the site in addition there has been no history of noise complaints from the site, as such a noise management plan is not deemed necessary.</p>
14	Noise minimisation	<p>Operational measures utilised onsite to reduce the potential for noise generation include:</p> <ul style="list-style-type: none"> • Operation of a PPM system to ensure that equipment is maintained in accordance with manufacturer requirements, minimising the risk of noise generation as a result of faulty/vibrating parts; • Equipment is operated in accordance with the manufacturers' specification; • The majority of equipment that has the potential to generate noise is located indoors, with the building structure minimising the risk of noise egress; • Equipment is operated by trained, experienced personnel; and • Low noise equipment is procured and installed where possible.
15	Odour – management plan	<p>The Operator included odour as part of their risk assessment in support of their application. The Operator has screened out odour emissions from the site in addition there has been no history of odour complaints from the site, as such an odour management plan is not deemed necessary.</p>

21 ^[1]	Energy efficiency	<p>The process applies partial milk homogenisation; use of an energy efficient homogeniser; use of continuous pasteurisers and regenerative heat exchange in pasteurisation to increase energy efficiency in line with BAT 21.</p> <p>Table 8 of BAT 21 applies as the process involves producing fermented milk. The specific energy consumption (SEC) for the production of fermented milk in 2023 has been calculated as 0.3677 MWh/tonne², which is within the range of the BAT-AEL presented within Table 8 of BAT 21 for fermented milk (0.2 - 1.6 MWh/tonne).</p> <p>Table 9 in relation to waste water does not apply as there is no specific waste water discharge performance level for the permitted production activities at the site.</p>
22 ^[1]	Waste	<p>The operator uses centrifuges on site to separate milk and cream. These centrifuges are cleaned regularly (~ every 20 minutes) to reduce the build-up of cream on the centrifuge which assists the centrifuge in operating more efficiently and minimises the rejection of product. Waste from the centrifuge is transferred off-site for use as pig feed.</p>
23 ^[1]	Emissions to air	<p>Drying processes are not undertaken as part of the permitted manufacturing process.</p>

[1] Dairy sector specific BATc

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

The decision was taken in accordance with our guidance on confidentiality.

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

- Local Authority – Environmental Health – Telford and Wrekin Council
- Sewerage Authority – Severn Trent Water
- Director of Public Health
- UK Health Security Agency (UKHSA)
- The Food Standards Agency
- Health and Safety Executive

The comments and our responses are summarised in the [consultation responses](#) section.

The regulated facility

We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN2 'Defining the scope of the installation', and Appendix 1 of RGN 2 'Interpretation of Schedule 1'.

The operator has provided the grid reference for the emission points from the medium combustion plants.

The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

The site

The operator has provided a plan which we consider to be satisfactory.

This shows the extent of the site of the facility.

The plan is included in the permit.

Site condition report

The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.

A site condition report (SCR) was submitted with the application. The manufacture of yogurts is undertaken within production buildings. The manufacturing lines and high bay warehouse contain impermeable hardstanding with drainage that leads to the effluent treatment plant (ETP). Raw materials and chemicals are stored in dedicated storage containers/tanks either externally or internally within the proposed EP boundary; bulk storage tanks are provided with level alarms and/or spill/leak protection measures. Muller ensure that all hazardous chemicals are stored appropriately to minimise the risk of release to the environment. Waste materials are stored in dedicated waste receptacles located within defined hard surfaced storage areas located on the site, which drain to the ETP. Cleaning is undertaken on impermeable hardstanding with drainage that leads to the ETP. Bulk tank filling and emptying procedures are in place as part of the EMS.

Some deficiencies in containment and bunding have been identified in the operator's proposals, therefore an improvement programme (IC1 to IC6) has been included in the permit to address these areas of concern, in accordance with CIRIA C736 (2014) guidance (see 'On site containment' section above).

Drainage at the site is provided for uncontaminated rainwater, process effluent and foul drainage. Manual penstocks are currently present on discharge points W1, W2 and W3 to prevent water leaving site in case of an emergency. The activities undertaken on site will not result in emissions to land.

The site is deemed to have low sensitivity due to the presence of Till and no underlying Source Protection Zones.

There are no records of spills onsite during the site's operation. As such, no intrusive investigation at the site has been deemed necessary. No baseline samples have been taken. We therefore assume that the existing level of contamination at the site is zero and the operator will be responsible for any necessary remediation when the ground is surrendered.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

We consider that the application will not affect any site of nature conservation,

A Habitats Regulations Assessment Stage 1 has been sent to Natural England 'for information only'.

The decision was taken in accordance with our guidance.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator's risk assessment is satisfactory.

General operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Operating techniques for emissions that do not screen out as insignificant

Emissions of chlorine cannot be screened out as insignificant. We have assessed whether the proposed techniques are Best Available Techniques (BAT).

The proposed emission levels for chlorine that do not screen out as insignificant depart from the techniques and benchmark levels contained in the technical guidance. We have considered the operator's justification for departure from the guidance.

We do not accept the exceedance of chlorine in the receiving watercourse and have therefore included IC7 to address this issue, as outlined in the 'Improvement Programme' section above.

Operating techniques for emissions that screen out as insignificant

Emissions of Oxides of Nitrogen have been screened out as insignificant, and so we agree that the applicant's proposed techniques are Best Available Techniques (BAT) for the installation.

In addition, all substances discharged to emission point W1, with the exception of chlorine, were screened out as insignificant.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

National Air Pollution Control Programme

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Updating permit conditions during consolidation

We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

We have included an improvement programme to ensure that deficiencies within aspects of the operator's proposals are addressed, as the site is existing.

See [key issues](#) section.

Emission limits

Emission Limit Values (ELVs) based on Best Available Techniques (BAT) have been added for the following substances:

Boiler - Oxides of nitrogen (NO_x) - 250 mg/m³

We have included these limits based on the Medium Combustion Plant Directive.

Monitoring

We have decided that monitoring should be added for the following parameters, using the methods detailed and to the frequencies specified:

Oxides of nitrogen (NO_x)

Carbon Monoxide

Chloride

We made these decisions in accordance with the Medium Combustion Plant Directive and the Best Available Techniques (BAT) reference document for the food, drink and milk industries 2019.

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

Reporting

We have added reporting in the permit for the following parameters:

Oxides of nitrogen (NO_x)

Carbon Monoxide

Chloride

We made these decisions in accordance with the Medium Combustion Plant Directive and the Best Available Techniques (BAT) reference document for the food, drink and milk industries 2019.

Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

Previous performance

We have assessed operator competence. There is no known reason to consider the applicant will not comply with the permit conditions.

No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.

Financial competence

There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit variation.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation Responses

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public, and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from: Telford and Wrekin Council on 21/11/2023.

Brief summary of issues raised: It was noted that the described increase in onsite processes and the expansion of the permit area have the potential to increase risk to Public Health if not managed effectively. It was also noted that there have been no recent odour or noise complaints and was suggested that the operator communicates regularly with nearby residents to ensure timely notification and remediation of any odour or noise issues.

Summary of actions taken: As there has been no previous history of odour or noise complaints from the site and the facility is considered to be low risk from a noise and odour perspective, odour and noise management plans were not required as part of the permit variation application. However, standard conditions 3.3.1, 3.3.2, 4.3.1 and 4.3.2 concerning odour and noise have been included in the permit and if deemed necessary the operator will be required to implement approved odour or noise management plans in the future.

Response received from: UKHSA on 27/11/2023.

Brief summary of issues raised: It was noted that the main emission of potential concern is an uncontrolled/major spillage of site inventory that results in the loss of site containment and potential off-site impacts. It was also noted that the containment assessment (adopting the CIRIA C736 risk assessment approach) provided with the application, indicates that current site containment is not sufficient to fully capture spilt inventory arising from worst case scenarios. UKHSA recommends that the EA is reassured that site containment is fit for purpose with respect to spilled inventory and potential that involve either the uncontrolled or major loss of containment, and that standards of containment follow relevant best practice guidance.

Requested that any information arising from these recommendations should be sent to UKHSA for consideration.

UKHSA assume that the permit holder shall take all appropriate measures to prevent or control pollution, in accordance with the relevant sector guidance and industry best practice.

Summary of actions taken: An improvement programme (IC1 to IC6) has been included in the permit to ensure that deficiencies identified with site containment and bunding are addressed, in accordance with CIRIA C736 (2014) guidance.

We consulted UKHSA again on 02/04/2024 with regards to the proposed improvements to containment at the site, as requested.

The response is below:

Response received from: UKHSA on 26/04/2024.

Brief summary of issues raised: Note that having considered the most recent correspondence, UKHSA understand that the Environment Agency as the regulator will oversee and monitor site containment and other control measures proposed for the site and that UKHSA has no significant concerns regarding the risk to the health of the local population from the installation.

Summary of actions taken: No further action required.

No responses received from the following organisations:

- Sewerage Authority – Severn Trent Water
- Director of Public Health
- The Food Standards Agency
- Health and Safety Executive