

NON-TECHNICAL SUMMARY

Environmental Permit Variation, Telford
Prepared for: **Muller UK & Ireland Group LLP**
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1.0 Introduction

SLR Consulting Limited (SLR) has been instructed by Muller UK & Ireland Group LLP (Muller) to prepare an application for a substantial variation of the existing Environmental Permit (EP), reference EPR/SP3200SY for the Muller, yogurt and yogurt drink facility located at Donnington Wood Business Park, Granville Road, Telford TF2 7GJ (the site).

The site is currently permitted for the operation of a Medium Combustion Plant (MCP) under Schedule 25B activity as described in the Environmental Permitting (England and Wales) (Amendment) Regulations (EPR) 2018.

Muller intends to increase production at the Telford facility by 21%. This planned increase will include receipt of over 200 tonnes per day of milk and treatment of over 50 tonnes of effluent per day. The facility will therefore, in accordance with the Environmental Permitting (England and Wales) Regulations 2016 (as amended) (EPR), require a change from an MCP EP under Schedule 25B of the 2018 Environmental Permitting Regulations; to become a Part A(1) installation, specifically for the following listed activities:

- Section 6, Part A(1)(e) Treating and processing milk, the quantity of milk received being more than 200 tonnes per day (average value on an annual basis).
- Section 5.4 Part A(1)(a) Disposal, recovery or a mix of disposal and recovery of non-hazardous waste:
 - with a capacity exceeding 50 tonnes per day involving one or more of the following activities,
 - (i) biological treatment;
 - (ii) physico-chemical treatment.

The proposed changes will include expansion of the current EP boundary located around the existing combined heat and power plant (CHP) to include the whole of the site boundary. The expansion of the EP boundary has resulted in an additional point source to air (gas fired steam boiler) to be incorporated in the varied EP; two discharge points for uncontaminated rainwater to surface water; and an emission point to sewer.

The EP permit variation application comprises the following elements:

- Application forms (Parts A, C2, C3, C6 and F1).
- Non-technical Summary.
- Best Available Techniques and Operating Techniques, which describes both the operating techniques that will be implemented to ensure compliance with the conditions of the EP and to demonstrate for the proposed changes that BAT will be employed.
- A qualitative Environmental Risk Assessment.
- A surface water risk assessment.
- An air emissions risk assessment.
- A site condition report.

The following drawings accompany the Environmental Permit variation application:

- Drawing 001 - Site Location;
- Drawing 002 - Site Layout and EP boundary;
- Drawing 003 - Site Setting Plan – Local Receptors; and
- Drawing 004 - Site Setting Plan – Cultural and Natural Heritage.

1.1 The Site

The site is located on Donnington Wood Business Park, Granville Road, Telford TF2 7GJ, and is centred on National Grid Reference SJ 71170 12140.

The site, which is located approximately 3.75km northeast of Telford, is within an industrial area. To the north of the site lies Granville Road, beyond which lies a residential area (approximately 25m from the site). Commercial premises lie to the east, south and northwest of the EP boundary. Additional residential areas lie approximately 35m to the west beyond Redhill Way and 250m north. Parcels of woodland lie to the north, east, south and west of the site boundary. There is a 'detention basin' for uncontaminated rainwater located in the eastern portion of the site.

The site's location is illustrated on Drawing 001 and the site layout and EP boundary on Drawing 002. The surrounding land uses, local receptors within 500m are illustrated on Drawing 003 and cultural and natural heritage receptors within 2km are identified on Drawing 004.

A summary of the site's immediate surrounding land uses is identified in Table 1 below.

Table 1
Surrounding Land Uses

Direction	Land-Use
North	Granville Road, beyond which is a small residential area (approximately 25m north of the EP boundary) and vegetated open space. A petrol station is located approximately 150m to the northwest. Residential properties lie approximately 250m north.
East	Commercial premises immediately adjacent with vegetated open space beyond.
South	Commercial properties adjacent with woodland and vegetated open space beyond.
West	Redhill Way (A4640) with residential housing (approximately 35m west of the EP boundary) and woodland beyond.

Infrastructure at the facility comprises:

- offices;
- manufacturing facility (separated into medium care, enclosed product (filling) and base care (packing) and low risk areas);
- high bay warehouse - raw material storage (liquid and solid);
- tanks for storing raw materials and waste;
- storage warehouse for finished goods storage;
- despatch area;
- waste storage area;
- engineering workshop;
- research and development facility;
- laboratory;
- effluent treatment plant (ETP);
- CHP;

- gas fired steam boiler; and
- refrigeration system with cooling tower.

2.0 Overview of the Site Operations

Muller manufactures yogurts and yogurt drinks for the food industry. The site sources many raw materials, including milk, skimmed milk, cream, milk powder, processed fruit preparations, dry ingredients and packaging, from approved suppliers. Some raw materials require further processing, raw milk is pasteurised on site. Ancillary operations include the operation of a CHP, gas-fired steam boiler, the cleaning and sterilisation of the production units, cooling tower and an effluent treatment plant.

The processes include receipt and storage of raw materials; manufacture of yogurt through the filling process to final chilling; and loading and despatch of finished products. All finished products require refrigeration to ensure that the quality of the product is not compromised.

In 2019 work was completed on a new high bay warehouse used for storage and a despatch facility.

Waste generated at the site predominantly comprises rejected raw materials; waste product; stock destruction; and sludge from the ETP. Waste is transferred offsite to suitably licenced facilities for recovery, recycling, re-use as animal feed or for energy generation by anaerobic digestion.

Wastewater is treated onsite in the ETP prior to discharge to sewer under a trade effluent discharge consent issued by Severn Trent. Steam for the process is generated from the gas fired boiler and the CHP provides heat and electricity for the site.

The site layout and EP boundary are presented on Drawing 002.

2.1 Process Description – Production of Yogurt

The proposed process to be incorporated into the EP is the production of yogurt and yogurt drinks.

The production process involves receipt of raw materials including raw milk, cream and skimmed concentrate at the milk reception area. Tankers are connected to pipework via a flexible hose and the liquid pumped to storage tanks via a computerised control system. Raw milk is then split into skimmed milk and cream.

Additional raw materials (i.e., sweeteners, cereal, whey protein) are offloaded on pallets for storage in the high bay warehouse. Processed fruit is stored in 800kg vessels in the high bay warehouse.

Depending on the recipe, the yogurt base is mixed with skimmed milk, cream and additives such as sweeteners or whey powder. The mixture is then pasteurised in the ultra-heat treatment (UHT) plant utilising heat exchangers. The mix is heated up to 95°C, then cooled down to 40°C and stored in incubated silos for six to eight hours.

Heated treated yogurt mixes are then transferred to the filling lines where between 1.4 million and 1.6 million pots of yogurt are produced each week. Processed fruit is added to the yogurt mix. Pots are then filled, lids added and placed in trays.

Trays of yogurt are placed on pallets which are placed in cooling pods in the despatch area. There are approximately 300 cooling pods in the despatch area. The cooling pods automatically turn on when occupied. An ammonia-based cooling system is used to keep the despatch area cool. Pallets of product are subsequently loaded onto refrigerated trailers for distribution.

A pilot plant, a smaller version of the process plant is also present onsite for research and development into new products.

2.2 Drainage

Drainage at the site is provided for:

- uncontaminated rainwater;
- process effluent; and
- foul drainage.

Discharge points are presented in Appendix A.

Uncontaminated rainwater is collected in the western portion of site, flows through an interceptor and is discharged through discharge point 'W2' to local surface water Crow Brook.

In the eastern portion of the site, rainwater flows through an interceptor then collected in 'detention basin' and then discharged through discharge point 'W3' to a Severn Trent sewer.

Process effluent is collected from process areas and drains to a sump before being pumped to a balance tank and treated through the ETP. Effluent is discharged to sewer under an trade effluent discharge consent issued by Severn Trent at discharge point W1.

Manual penstocks are currently present on discharge points W1, W2 and W3 to prevent water leaving site in case of an emergency. The manual penstock at discharge point W2 is due to be upgraded to become an automated penstock. A penstock is also present in the middle yard, down gradient of the waste storage area to prevent water leaving this area if necessary.

2.3 Containment

SLR have undertaken an assessment of containment at the site (refer SLR Muller Telford Containment Assessment Report 410.V62639.00001_CR in Appendix C). The following containment solutions are due to be implemented on site in the next 12-18 months:

- Key issue 7: Undertake design and construction works to mobilise 340m³ of tertiary storage capacity in the attenuation tank below the carpark on the northwest corner of the site.
- Key issue 8: Consider closing of the Penstock valve associated with the slot drain running diagonally through the stocking yard and inclusion of a sleeping policeman to close off the roadway at kerb height to the east of the turn into the stocking yard so that any spills associated with the storage of the fruit concentrate would be captured by the tertiary containment system described above in Key Issue 7 and not drain to the surface water systems to the east of the site.

As part of the response to key issues 7 and 8, Muller are currently in the process of designing and implementing the following:

- upgraded surface water drain covers the spill catchment area identified in the containment report;
- effluent manhole cover to be replaced with open grid cover to partially treat potential spills;
- new automated 600mm Dia. Penstock in main surface water outlet discharge W2 (triggered by turbidity, pH or manual activation);
- automation of the current slot drain penstock (Closed) with kerb level activation (to open) in spill catchment area identified in the containment report;
- spill catchment area (as defined in the containment report) pump set with bowser connections to feed to tanker or ETP;
- sleeping policeman by middle yard to direct spills towards the ETP.

The findings of the containment review and additional key issues are being considered by Muller.

2.4 Installation Operation

The site operates 365 days a year. The facility works on a continental shift pattern comprising 4 days on and 4 days off.

2.5 Operating Techniques

The activities undertaken at the site are designed and operate in accordance with the relevant sections of the following key guidance documents:

- Reference Document on Best Available Techniques (BREF) in the Food, Drink and Milk Industries, August 2006 and final draft (October 2018).
- Reference Document on Best Available Techniques for Energy Efficiency, February 2009.

2.5.1 Environmental Management System

Muller has an Environmental Management System (EMS) which is certified to the ISO14001 international standard. The management system is regularly audited internally at both plant and group level.

The EMS includes the policies, management principles, organisational structure, responsibilities, standards/procedures, process controls and resources required to manage environmental protection across all aspects of the business.

A summary of the EMS is provided in the Best Available Operating Techniques document (SLR reference 410.V62639.00001_ BATOT) submitted with the permit variation application.

2.6 Summary of Application Contents

To support this application, the following documentation has been prepared:

- Section 1: Application Forms;
- Section 2: Non-Technical Summary;
- Section 3: Best Available Techniques and Operating Techniques (BATOT);
- Section 4: Environmental Risk Assessment;
- Section 5: Surface Water Risk Assessment;
- Section 6: Air Emissions Risk Assessment;
- Section 7: Site Condition Report; and
- Section 8: Drawings.

2.7 Best Available Techniques and Operating Techniques (BATOT)

The Best Available Techniques and Operating Techniques (BATOT) document describes how the site has been designed and how it is operated in accordance with Best Available Techniques (BAT) as described in EA guidance and the relevant BREF notes. The document includes an overview of the technical, operational and management measures that apply to the activities.

The BATOT is enclosed as Section 4 of this application.

2.8 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) has considered the risks posed by the facility to the environment. It includes assessment of relevant environmental impacts for each of the proposed changes, in accordance with EA guidance '*risk assessments for your environmental permit*'.

The ERA is enclosed as Section 5 of this application.

2.9 Surface Water Risk Assessment

The Surface Water Risk Assessment has considered the risks posed by the facility to water discharged to sewer which may subsequently impact the environment if not treated at the Severn Trent Treatment Works. It includes assessment of relevant impacts for equipment that discharges to the ETP and subsequent effluent discharge point, in accordance with EA guidance '*Surface water pollution risk assessment for your environmental permit*'.

The Surface Water Risk Assessment is enclosed as Section 6 of this application.

2.10 Air Emissions Risk Assessment

The Air Emissions Risk Assessment (AERA) has considered the risks posed by the site to short-term and long-term impacts on both human and ecological receptors. Impacts are assessed against relevant Environmental Assessment Levels (EALs) for the protection of human health and against Critical Loads (CLo) and Critical Levels (CLe) for the protection of vegetation and ecosystems; in accordance with EA guidance '*Air emissions risk assessment for your environmental permit*' (the AERA guidance).

The AERA is enclosed as Section 7 of this application.

2.11 Site Condition Report

The site is currently permitted for the operation of a Medium Combustion Plant (MCP) under Schedule 25B activity as described in the Environmental Permitting (England and Wales) (Amendment) Regulations (EPR) 2018. The current EP boundary is limited to surround the onsite combined heat and power plant (CHP). Muller propose to extend the EP boundary to incorporate the whole site to mirror the current site boundary. The site and the EP and site boundaries are presented on Drawing 002.

The Site Condition Report (SCR) has provided a baseline of the existing land and groundwater conditions at commencement of the permitted operations for the area included within the proposed extended site boundary. This includes a risk assessment prepared in accordance with EA Guidance '*Environmental Risk Assessment - EPR H1*'.

The Site Condition Report is enclosed as Section 8 of this application.

2.12 Key Technical Standards

The operational techniques that will be in place at the site to manage the increase in yogurt and yogurt drink production can be summarised as follows:

- SLR have undertaken a review of containment at the site (refer SLR Muller Telford Containment Report 410.000001.00001). Muller are reviewing this assessment and will put an improvement plan in place where this is considered necessary.
- Bulk tank filling and emptying procedures are in place as part of the EMS.
- Chemicals are stored in dedicated chemical storage areas at the Installation.

- Wastewater is treated onsite in the ETP to ensure parameters within the Severn Trent Water trade effluent discharge consent are not exceeded.
- The three onsite interceptors serving the surface water discharge points W1 and W2 and also the waste storage area are subject to daily checks and regular inspection, maintenance and cleaning by appointed specialist contractors.
- The site has a preventative maintenance (PPM) system in place. PPM involves daily checks including visual inspections, analysis of water quality, plant gauges etc. There is a daily checklist detailing the checks that are required and the results of these checks.
- Risks of pollution from fugitive emissions, odour, noise and accidents from the Installation are considered unlikely. Measures will be employed to minimise the risk of such emissions.
- Muller maintains spill procedures and operating personnel are provided with training in the implementation of the spill procedures.
- The site has appointed a pest control company who regularly visit the site to ensure pest control is adequate.
- Waste materials are stored within suitable designated containers and disposed of regularly by a suitably licenced waste contractor at suitably licenced premises.
- The risk of noise impact from the operation is low. The site has had no noise complaints in recent years during operation of the site and where additional equipment is added to process the increase in throughput, these will be located predominantly indoors.
- Muller implements operational controls that are maintained within the ISO 14001 management system.
- In accordance with the EMS, procedures are in place for the regular inspection and maintenance of storage areas and associated infrastructure, including site surfacing, drainage systems and containment measures. Records are maintained of inspection and maintenance activities, and of any accidents or incidents and the action taken to rectify these.

3.0 Conclusion

The overall conclusion from the studies undertaken as part of this EP variation application is that there is unlikely to be a significant environmental impact as a result of site operations. Moreover, improvements to the containment system where these are identified to be required should result in a reduced potential impact upon the local environment.

APPENDIX A

Discharge Points

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