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Cambrian Pet Foods Limited

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CAMBRIAN PET FOODS LIMITED

ENVIRONMENTAL PERMIT APPLICATION: NON-TECHNICAL SUMMARY

RAMBOLL

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1. INTRODUCTION

This summary has been prepared to provide a non-technical overview of the Installation to support the application for a Part A(1) Environmental Permit by Cambrian Pet Foods Limited ("Cambrian"). It details the regulated facility and provides a summary of the key technical standards and control measures in place at the Facility.

1.1 Site Setting

Sensitive receptors within close proximity to the site comprise residential properties from 18 m to the north-east. The Afon Bran flows across the southern portion of the site in a westerly direction, joining the Afon Tywi approximately 140 m west. Both rivers are classed as main rivers. The Afon Tywi is designated as a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC) for biological interest. The site is situated on a Secondary B Aquifer relating to the underlying mudstone/ shale bedrock. A number of areas of Ancient Woodland are also located within a 1 km radius of the installation.

2. SUMMARY OF THE INSTALLATION

The Installation is a wet pet food production and processing facility located at Tywi Valley Food Park, Station Road, Llangadog, Carmarthenshire, Wales, UK, SA19 9LN (the "Site", the "Facility" or the "Installation"), which manufactures canned and tray pet foods. The site is approximately 16 acres and is located approximately 36km north of Swansea City Centre.

At the point of Environmental Permit Application Cambrian is in the planning stages of a site improvement programme which will re-develop a large section of the current brown field site in Llangadog. The development will replace buildings, previously used by the former Creamery with new facilities which are to include an additional steam boiler, a new drainage system and modern efficient equipment.

The proposed footprint of the new development will be approximately 4300sq meters. The proposed build will be a food grade internally clad, single span steel portal building, with food grade flooring, covings and internal drainage. In addition, refurbishment of an existing adjacent building will incorporate a laboratory, food testing, QA testing- with an open glass area to view the production facility (a customer visitor centre) with staff facilities including changing rooms and locker and wash rooms. The building will be built to the specification required to comply with British retail Food requirements.

The proposed developments will increase production capacity at the Facility to 80,000 tonnes per annum. Process effluent will be directed to the Effluent Treatment Plant, which has sufficient capacity to treat the increased effluent levels due to increased capacity.

2.1 Operations

Cambrian employs approximately 80 individuals at the Installation, manufacturing canned (chunks and loaf) and tray pet food. The principal operations undertaken within the Installation comprise the receiving, storage and initial preparation of ingredients, main processing (breaking, mincing, mixing, emulsifying, extruding and cooking / sterilisation) and packing and storage before onward distribution. The Installation operates an Effluent Treatment Plant (ETP). Production operations at the site are conducted generally between 7am and 7pm, five days per week, with cleaning taking place outside of these hours.

A more detailed description of the operations is provided below:

Receiving – Raw meat and fish is received as either fresh (chilled) or frozen. Frozen meat and fish is either sent directly to the cold store freezer or moved directly into the main manufacturing building for processing. Fresh meat and fish is either stored in the cold store chiller or, where the fresh meat and fish cannot be used immediately, it is put through a breaker and mincer and frozen using eight ammonia chilled freezing plates, the resultant blocks are moved to the cold store freezer. Dry ingredients (rice, cereals, powdered vitamins and minerals) and packaging are received and checked prior to acceptance and are held in the dry warehouse until required.

Main Processing – Meat and fish ingredients are batched as per the recipe. The frozen blocks and fresh meat and fish are broken down in a pre-breaker before being minced and mixed with the other ingredients. Once mixed the ingredients are either used directly in the loaf and tray product, or extruded into a paste for making the chunks for the chunk product. In the latter scenario the paste is pre-cooked in a steam tunnel, cooled using water and cut into chunks. The chunks are then added to cans along with the gravy or jelly, which has been produced by mixing ingredients with hot water. For the loaf product the mixed ingredients are added directly to the can. An end is then seamed onto the loaf and chunk cans, coded using an inkjet printer and cooked in one of six automated autoclaves / retort used specifically for the cans. The cooking cycle is controlled automatically. When the cooking process is completed, the retort introduces

cooling water to cool the cans prior to discharge. This water is recovered and used for wash-down activities. Air dryers on the conveyor remove excess liquid from the cans.

Trays are produced on a separate line, using the mixed ingredients along with gravy to fill the tray. A film or foil covering is placed over the tray and sealed. The trays are loaded into two autoclaves / retorts used specifically for cooking the tray product.

Packing and Storage - Cans and trays are automatically removed from the metal baskets and are conveyed to the relevant packaging hall for packaging. Cans are labelled and packaged in a cardboard tray and film, or cardboard box. Trays are usually provided with a cardboard sleeve before being boxed. Cans and trays are then stacked on pallets, shrink wrapped and labelled. The finished product is stored in the on-site warehouse before dispatch.

2.2 Major Plant and Equipment

The Installation operates the following major plant and equipment:

Chilling – An ammonia plant, with a capacity for 2 tonnes of ammonia, provides freezing to the eight plate freezers and refrigeration units provide chilling for the cold store chiller and freezer.

Compressor – The Site operates two compressors, the condensate from which passes through filters before going to drain and on to the ETP.

Effluent Treatment Plant - Wastewater arising from production processes including wash-down, cooking (steam), cleaning of Dolavs and surface water run-off is routed to the Effluent Treatment Plant (ETP) at the south of the site. The ETP comprises a "Detritus Pit", a central 'LUBEK' tank, a reception tank and a Dissolved Air Flotation (DAF) plant. The DAF unit is situated on an elevated covered platform, with secondary containment at ground level. Wastewater from the DAF plant is routed to a centrifuge where flocculent is added. The sludge that settles to the bottom is dried, stored in a silo and disposed of as a cake. The wastewater from the DAF unit is passed through an anaerobic filter bed, two separating towers and two external filter beds (containing plastic filer media). The wastewater is then channelled into a pump house, through two settling towers and final clarifiers prior to discharge into the Afon Tywi. The operator holds a Consent to Discharge (BG0002801, 06/06/2008) from the Environment Agency (now Natural Resources Wales), for the discharge of secondary treated sewage effluent and trade effluent from the ETP to the Afon Tywi. It is noted that the National Grid Reference (NGR) of the discharge point given on the consent is SN 69520 28400, to the River Towy (Afon Tywi). This NGR appears to be incorrect; the correct discharge point is to the Afon Tywi at NGR SN 69600 28400. The water discharge to the river is monitored for content and temperature daily by the Installation, and samples are sent to an external laboratory quarterly. NRW carry out monthly analysis of the discharge as part of a wider programme to monitor discharges to the Afon Tywi. The Consent also requires continuous flow monitoring, which is carried out at a 'V' notch. The total volume of permitted discharge is 1,000m^3/ day. Several parts of the ETP formerly used by the creamery are not currently utilized by Cambrian (namely a pump pit, two enclosed beds, three towers (in the eastern portion of the ETP) and a centrifuge).

Cesspit - Other wastewater, such as discharges from site offices and facilities, is discharged to a cesspit where it is stored until collection and removal from site for disposal at an appropriately permitted location. The facility has no connection to a municipal sewer.

Drainage - The Installation is served by two separate drainage systems:-

- Process Effluent and Surface Water Drainage: this system receives surface water run-off from external surfaces and all wastewater from production processes, which is directed to the ETP.
- Foul Water Drainage: this system receives foul water from administrative areas, and is directed to a cesspit for storage and collection.

Boiler - The Installation has a single gas-fired boiler, with a thermal input of 10.2 MW, for raising the process steam used in the autoclaves / retort and the steam tunnel. It is planned that a backup boiler with a thermal input of 9MW is to be commissioned as part of the site developments, and that both boilers will be housed in a new boiler house, planned to be constructed at the east of the site.

Laboratory - Cambrian also operates a laboratory, in which recipes are developed and raw ingredients and finished product and waste water samples are tested.

Fork Lift Trucks – The facility utilises a fleet of 12 Fork Lift Trucks (FLT) to move raw materials, finished product and waste around the site. The FLTs are powered by either electric or diesel. A 2,500 litre diesel tank is available for this use.

Ancillary Operations – The Installation has office accommodation and restrooms / eating area.

2.3 Site Investigation

Two intrusive investigations have been carried out on the site and have been included as part of the Site Condition Report. An investigation in 2004 comprised eleven boreholes, with gas/ groundwater monitoring wells also installed within five of the boreholes. A further three boreholes were drilled in 2018, two of which were installed with gas/ groundwater monitoring wells. No evidence of contamination was identified during the 2018 investigation.

There are 10 No. monitoring wells on-site which could potentially be used for routine groundwater monitoring.

3. KEY TECHNICAL STANDARDS

The Installation conforms to the requirements of:

- BAT- How to comply with your environmental permit- Additional guidance for: The Food and Drink Sector (EPR 6.10)- Environment Agency
- Reference Document on Best Available Techniques in the Food, Drink and Milk Industries, (FDM) August 2006- European Commission
- Process Guidance Note 6/24(13)- Statutory guidance for pet food manufacturing- DEFRA
- How to comply with your environmental permit, Version 8, Natural Resources Wales
- ISO 14001:2015
- H3 Horizontal Guidance for Noise Part 2 – Noise Assessment and Control- Environment Agency
- H4 Odour Management- Natural Resources Wales

4. CONTROL MEASURES

4.1 Waste

The site is committed to adopting the waste hierarchy by preventing, minimising and reusing waste where possible. For example, product is removed and reworked where packaging is found to be compromised. In addition, an established recycling programme requires the segregation of cardboard, plastic and non-reusable pallets. All wastes are stored in secure well organised storage areas.

Waste derived from meat and fish that is waste or spoiled is collected in plastic containers (Dolavs), frozen and held in a dedicated quarantine area to preserve it and prevent odour, before being collected by an approved waste contractor.

4.2 Preventative and reactive maintenance programmes

Preventative and reactive maintenance programmes are in place to ensure the condition of equipment and infrastructure and to prevent uncontrolled releases to air, surface water and groundwater. Preventative and reactive maintenance programmes are described in the Environmental Management System.

4.3 Energy, Carbon and Water Efficiency

Cambrian is committed to improving energy and water efficiency and monitors energy and water consumption and analyses it using the indicators kWh/tonne of product, litres of water/tonne of product. It has implemented a number of energy and water efficiency measures which include the use of heat exchangers in the Retort / autoclave used for cooking the product, reusing steam condensate, using heat from the compressors to warm the hot water before the boiler and reclaiming 50% of water from the Retort / autoclaves for cleaning.

4.4 Noise and Odour

The size and nature of the operation and proximity of neighbouring residential properties means that there is the potential for noise and/ or odour to affect surrounding residences; however, the facility has implemented a number of measures, including planned maintenance and monitoring, and a Noise & Odour Management Plan and monitoring programme are in place. To date, Cambrian have not received any complaints in relation to noise or odour from the site.

4.5 Environmental Management System

The Operator is currently in the process of developing and implementing an Environmental Management System (EMS) that meets the requirements for Environmental Permitting and which is based upon the principal requirements of the International Standard ISO14001:2015, although it is not looking to be certified at this time. The EMS includes operational control, training and competence, and emergency planning.