**Permit Variation 2024/25**

**Cawingredients EPR/UP3937FW**

**Completed forms & accompanying documents**

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| **Form** | **Filename** | **Comments** |
| **PDF forms** | | |
| A - About you | Variation\_Application-for-an-environmental-permit-part-a-about-you-EPR\_UP3937FW-Cawingredients |  |
| C2 – General varying a bespoke permit | Variation\_Application-for-a-permit-Part-C2-general-varying-a-bespoke-permit |  |
| C3 – Variation bespoke installation permit | Application\_environmental\_permit\_Part\_C3\_Variation\_bespoke\_installation\_permit | Updated |
| F1 – Charges and declarations | Application\_for\_an\_environmental\_permit\_Part\_F1\_Charges\_and\_declarations |  |
| ISO14001 Certificate | EPR\_UP3937FW-Cawingredients\_ISO14001\_Recertification\_2021 | Recertification booked for March 2025 |
| Boiler emissions data | YSX13750 – IPPC Data (002) |  |
| Boiler performance data | YSX13750 – Yorkshireman Low Nox – Performance Data (002) |  |
| CCA Agreement | EPR\_UP3937FW-Caw-Underlying Agreement (FDF\_T01151) | We will apply to join the scheme again in 2025. |
| Process Flow | EPR-UP3937FW-Process\_flow\_Caw | Full site process flow including new tanks and equipment |
| Water reuse diagram | EPR-UP3937FW-L441b FD15 Water reuse diagram (HACCP) |  |
| **Word Documents** | | |
| Caw submission Information (this document) | EPR-UP3937FW-Cawingredients\_submission\_Information v2 | Updated |
| Site Plan 2024 with air emissions locations | EPR-UP3937FW Site Plan 2024 with emissions locations | Only air emission locations as water not relevant to this application |
| Risk Assessment | EPR-UP3937FW-Cawingredients-Generic\_Risk\_Assessment-v2 | Updated |
| C2 & C3 additional sheet (table) | Cawingredients\_Permit\_Variation Part\_C2&C3-Additional\_Sheet\_Table1-EPR\_UP3937FW |  |
| **Excel Documents** | | |
| H1 Risk Assessment | H1 Tool v9.2 – WQ Disabled - Cawingredients |  |
| MCP Generator List | MCP-generator-list-v3-Caw |  |
| C3 – Table 3C Types and amounts of raw materials. | EPR-UP3937FW-Cawingredients-Raw\_Materials |  |
| Revised R61 response tool BAT assessment | EPR-UP3937FW-FDM permit review – R61 response tool - UPDATED | We have updated this document which was a BAT review for an EA instigated Permit review in 2022/23. |

**Current Permit EPR/UP3937FW/V007**

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| **Activity** | **Description** |
| Section 6.8 Part A (1)(d)(ii) Treating and processing materials | Manufacture of soft drinks from fruit juices, essences and other raw materials with a production capacity over 5 lines of 4090 tonnes per day |
| Section 5.4 Part A(1)(a)(i) Disposal | Wastewater treatment by bio-reactor technology (discharge via onsite effluent treatment plant to soakaway) |
| **Directly Associated Activity** | |
| Combustion Plant | Operation of a boiler with net thermal input rating of 9MWth fuelled by natural gas |
| Storage and handling of raw materials | Storage and handling of raw materials |
| Storage and handling of waste | Storage and handling of waste materials in preparation for collection and disposal |
| Cleaning and sanitation | Cleaning of process equipment |
| Fuel storage | Fuel Storage |
| Water Treatment | Treatment of mains water for use in product, boiler water/cleaning water |
| Surface water collection and discharge | Uncontaminated surface water |

**Summary of required changes to Permitted Activities:**

1. The implementation of a sixth production line which consists of the manufacture of canned soft drinks. This is referred to as the third Canning Line.
2. Increase in processed material volumes and finished goods.
3. A replacement boiler (1) to increase from 5.56 MWth to 9.17 MWth (although the current permit currently has our current boiler 1 down as a 9MWth boiler which is an error.)
4. Installation of an additional Reverse Osmosis (RO) plant for the treatment of waste-water for re-use.

**Variations to directly associated activities are requested, in line with the alterations to the Schedule 1 listed activities**:

* Increased production of steam from a new boiler
* Increased production of waste in proportion to the increased production capacity

**Changes in 2025**

Cawingredients are constructing a new production line which runs inside the existing plant, which will produce canned soft drinks. The production process is the same as the other 5 production lines (raw ingredients, water) and packaging (empty cans rather than PET bottles) are delivered to site by suppliers. Cawingredients process the materials to create a finished ‘ready to drink’ product for distribution by the client.

A simplified version of the process consists of receiving empty aluminium cans and delivering them onto the automated filling line. The empty cans are checked to ensure they are fit for use and then filled with the liquid product. A lid is fitted, and the cans are then prepared for palletising and onward distribution.

The canning plant will make use of modern, high efficiency and automated equipment. The new development includes a re-developed raw material storage building (chiller and ambient) with the use of a skybridge that will allow raw materials to move between the storage warehouse and production line.

The process for the manufacture of the liquid beverage and cleaning regime is the same as existing production lines.

**Production capacity**

Production volumes will increase from 4,090 tonnes a day to 5,160 tonnes per day. (1,070 increase) This is based on the fastest possible line speeds.

**Replacement Boiler 1**

In order to increase our steam production, we require a bigger boiler. We will replace the existing boiler 1 (A1) with a bigger low emission boiler. The new boiler is a modern design with emphasis placed on high efficiency and low emission specifications. Details and operating specifications of the boiler are better described in the variation application forms and associated documents. Steam is delivered via a ring-main system which is driven by demand.

**Extra Reverse Osmosis equipment for water re-use project**

We have installed a fourth RO plant at the effluent treatment plant to treat the cleaned effluent to be pumped up to the water re-use tank and used for line-cleaning. The RO will be 75% efficient with a 25% waste straight to the soakaway. It will be able to process up to 75% of the total daily effluent, reducing the daily discharge by over 400m3. We have calculated the worst-case scenario for the impact of the addition of the RO upon the composition of the effluent. There will still be a large quantity of non-RO treated effluent entering the soakaway that will dilute the total. Worst case scenario is that the average discharge parameters will see a 92% increase on the current Annual average results. We would still be well within our discharge consent limits. Please refer to document EPR-UP3937FW L441b FD15 Water reuse diagram (HACCCP)

**Increase to raw materials**

There will be an increase to some of the incoming raw materials and storage vessels. There will be no new raw materials used, there will just be more of what we already handle. All new tanks are highlighted in orange on the process flow diagram EPR-UP3937FW-Process\_Flow\_Caw. They are also listed in EPR-UP3937FW-Cawingredients-Raw\_Materials

**Energy usage**

The 6th line will increase production output by circa 20%. The plant and cooling systems installed make use of the latest and most efficient technology. Cawingredients are working to set science-aligned carbon reduction targets which should see investment into low carbon technologies. Cawingredients also entered the Climate Change Agreement scheme in Dec 2023 and have annual carbon reduction targets to meet.

All equipment, plant and machinery utilise the latest technology and as such is as efficient as is currently available. All lighting in the new canning line will be LED design and occupancy sensors installed in infrequently occupied areas to reduce usage when not required. All plant and machinery will be subject to a PPM schedule that ensures efficiency is maintained continuously. All large chilling/AC equipment will be surveyed every 5 years under the Energy Performance of Building Directive.

The new cooling plant that has been installed as part of the 6th line (canning) is an external free cooling design utilising ambient air when conditions allow. Of a number of options considered, Cawingredients opted for the plant representing a greater financial outlay initially but with advantages of long-term efficiency and reduced energy consumption.

We expect electricity consumption to increase by 15-20% and gas to increase by 20% annually compared to 2024 consumption. I have updated the ‘Soft drinks & juice’ tab of the EPR-UP3937FW-FDM permit review – R61 response tool-UPDATED to reflect a 20% increase for both.

**Water consumption**

Water consumption will increase. The increase will not be in line with the other lines production as the extra line will allow for planning changes that will decrease water use elsewhere (e.g longer production runs across all canning lines so less cleaning overall).

Cawingredients do not require an increase in discharge volume and the existing 700m3 capacity is sufficient.

We have installed a water reuse process that will take cleaned effluent and run it through a new Reverse Osmosis machine located at the effluent plant (see separate paragraph above). This water will initially be used for the cleaning in place (CIP) equipment on lines 1 & 2 before being rolled out to all 6 lines (subject to customer approval). The implementation of this system will allow for the extra water required for line 6 without the requirement for additional capacity within our discharge consent.

We believe this project is in line with best practice regarding the reduction of water use rather than an increase in the treatment of used water.

All drainage within the footprint of the new canning line is directed to our existing effluent treatment plant.

**Noise**

No concerns were raised during the planning phase of the production line installation. A new packaging storage warehouse has been built alongside the soakaway lagoon and as part of the planning application for this, acoustic screens have been installed around the dock area to ensure noise is minimised in the areas designated for vehicular movement.

**Waste**

Aluminium cans rejected in the process are 100% recyclable. They are moved by electric forklift trucks to a can crusher that removes any liquid (piped to effluent plant) and compacts the waste aluminium to be sent for recycling. Much of the cardboard supplied as initial packaging is returned to the supplier for reuse. Any waste that is not returnable is recycled or recovered through our current waste disposal provider. 99% of waste material was recovered or recycled in 2024. We are constantly reviewing tertiary packaging with suppliers to ensure as little as possible is used without compromising the product quality during transit.