



**APPLICATION FOR AN ENVIRONMENTAL PERMIT  
VARIATION UNDER THE ENVIRONMENTAL  
PERMITTING (ENGLAND AND WALES) REGULATIONS  
2016 (AS AMENDED)**

**NON TECHNICAL SUMMARY**



**Danish Crown**

**DANISH CROWN UK LIMITED,  
EBENEZER, BUGLE, ST AUSTELL, CORNWALL**

**ECL Ref: DCUK.01.01/NTS  
Version: Issue 1  
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## ACRONYMS/TERMS USED IN THE TEXT

<b>AELs</b>	<b>Associated Emission Levels</b>
<b>AMP</b>	<b>Accident Management Plan</b>
<b>BAT</b>	<b>Best Available Techniques</b>
<b>BRef</b>	<b>Best Available Techniques Reference Document</b>
<b>CCA</b>	<b>Climate Change Agreement</b>
<b>CO<sub>2</sub></b>	<b>Carbon Dioxide</b>
<b>COD</b>	<b>Chemical Oxygen Demand</b>
<b>DAA</b>	<b>Directly Associated Activities</b>
<b>DAF</b>	<b>Dissolved Air Flotation</b>
<b>DCUK</b>	<b>Danish Crown UK Limited</b>
<b>ECL</b>	<b>Environmental Compliance Limited</b>
<b>EH&amp;S</b>	<b>Environmental, Health and Safety</b>
<b>EMS</b>	<b>Environmental Management System</b>
<b>EP Regulations</b>	<b>Environmental Permitting (England and Wales) Regulations 2016 as amended</b>
<b>EP</b>	<b>Environmental Permit</b>
<b>EPTR</b>	<b>Environmental Permitting Technical Requirements</b>
<b>ERA</b>	<b>Environmental Risk Assessment</b>
<b>ETP</b>	<b>Effluent Treatment Plant</b>
<b>HT</b>	<b>Holding tanks.</b>
<b>IED</b>	<b>Industrial Emissions Directive</b>
<b>MSDS</b>	<b>Material Safety Data Sheets</b>
<b>O/L</b>	<b>Overload (tripped)</b>
<b>PPMR</b>	<b>Planned Preventative Maintenance Regime</b>
<b>RAS</b>	<b>Return Activated Sludge</b>
<b>SAS</b>	<b>Surplus Activated Sludge</b>
<b>SHT</b>	<b>Solids Holding Tank</b>
<b>SWW</b>	<b>Southwest Water</b>
<b>The Installation</b>	<b>Danish Crown Bulge Pork Manufacturing Site</b>

## 1. INTRODUCTION

### 1.1. Overview

1.1.1. Environmental Compliance Limited (“ECL”) have been commissioned by Danish Crown UK Limited (“DCUK”) to prepare an Environmental Permit (“EP”) (EPR/DP3631RA) variation application in relation to their pork manufacturing site, hereafter referred to as “the Installation”, located at Danish Crown Bugle, Ebenezer, Bugle, St Austell, PL26 8RR.

1.1.2. The Permit variation application proposes the following:

- the addition of a new Schedule 1 Activity to capture the biological treatment as part of the on-site effluent treatment prior to discharge to S1; and
- the correction and amendment of Point Source Emission Points to Air to reflect the current arrangements at the Installation and relevant associated Directly Associated Activities.

### 1.2. Installation Location

1.2.1. The Installation is located in Ebenezer, Bugle, St Austell, Cornwall, PL26 8RR. The Installation covers an area of approximately 2.2 hectares.

1.2.2. DCUK is not proposing to expand the Environmental Permit boundary as part of the variation application.

1.2.3. The Environmental Permit boundary is shown on the Site Location Plan (Drawing Reference DCUK.01.01-01) contained in Section 3 of this application submission.

### 1.3. The Applicant

1.3.1. Danish Crown UK Limited were incorporated in 1986 under company number 02021233.

1.3.2. Danish Crown UK Limited is part of a global Danish Crown Group which is one of the world’s largest exporters and one of Europe’s largest producers of pork. Danish Crown UK currently has 7 sites based across the UK. The Bugle site focuses on pork deboning, curing, processing and smoking.

### 1.4. Pre-Application Advice

1.4.1. Basic pre-application advice was sought from the EA in May 2024 – Pre-Application Reference EPR/DP3631RA/P001. This included obtaining a nature and heritage conservation screening report to identify any conservation sites, protected species or habitats that could be affected by the variation activities. This screening report is provided in the Environmental Risk Assessment (DCUK.01.01/ERA) submitted in Section 5 of this application submission.

## **2. LISTED ACTIVITIES**

### **2.1. Current Activities**

- 2.1.1. The Installation is currently subject to two Schedule 1 Activities under the Environmental Permitting (England and Wales) Regulations 2016 as amended (“EP Regulations”):
- Section 6.8 Part A(1)(d)(i) - Treating and processing materials intended for production of food products from animal raw material; and
  - Section 5.4 Part A(1)(a)(ii) - Disposal of non-hazardous waste in an effluent treatment plant (physico-chemical treatment).

### **2.2. Proposed Activities**

- 2.2.1. This variation application proposes the additional activity that of biological treatment of the generated effluent. Consequently, DCUK is proposing to add one additional Schedule 1 Activity, namely Section 5.4 Part A(1)(a)(i) Disposal of non-hazardous waste in an effluent treatment plant (biological treatment).

### **2.3. Discrepancies with Existing Permit**

- 2.3.1. A varied and consolidated Permit (Variation EPR/DP3631RA/V003) was issued by the Environment Agency (“EA”) on 27<sup>th</sup> August 2024. Following the issue of that Permit variation, discrepancies have subsequently been noted in relation to the description of Point Source Emissions to Air, Table S3.1 – Point Source Emissions to Air and as a consequence Table S1.1 Directly Associated Activities.
- 2.3.2. The discrepancies are summarised below in Table 1.

**Table 1: Point Source Emission to Comparison**

Emission Point	Permit	Description:	Comment
A1	Smoke Chamber	Smoke Chamber Smokers (S 4 – 6)	Matches varied Permit
A2	Water boiler 1 x 0.5MWth LPG fired boiler	Water boiler 1 x 0.5MWth LPG fired boiler	Matches varied Permit
A3	Omitted	Water boiler 1 x 0.5MWth LPG fired boiler A2 & A3 are hot water system set, and are Wilo water boilers	Not on varied Permit A3 needs to be included in the Permit
A4	Smoke Chamber	Smoke Chamber Smokers (S1-3)	Matches varied Permit
A5	Oil fired roaster (incorrect)	Smoke Chamber Smokers (S7-10)	Discrepancy Permit states it is an oil-fired roaster, but this is incorrect and should be replaced by a Smoke Chamber.
A6	Smoke Chamber	Cookers (C1-4)	Matches varied Permit
A7	Boiler plant 1.2MWth gas oil boiler (diesel fired boiler)	Fulton Steam Boiler	Matches varied Permit
A8	Omitted	Air Handling Unit Decadesant Drying Burner using LPG	A8 needs to be included in the Permit

2.3.3. The following discrepancies have been noted relating to the Directly Associated Activities as follows:

- Directly Associated Activity AR3– believe this to be missing A3 (a second wilo water boiler 0.5MWth LPG fired boiler).
- Directly Associated Activity AR4 – one oil fired roaster (A5) – believe this to be removed.
- Directly Associated Activity AR5 – operation of meat smoker chambers – believe this to be missing A5 and remove A6 reference.

### **3. MANAGEMENT TECHNIQUES**

#### **3.1. Overview of the Environmental Management System**

3.1.1. DCUK operate their own Environmental Management System (“EMS”) with the aim to obtain international standard ISO 14001 in the future.

3.1.2. The Environment, Health and Safety (“EH&S”) Manager has overall responsibility for environmental matters at the Installation.

3.1.3. DCUK has established a documented management system which:

- ensures compliance with the Environmental Permit and other licences and consents held by DCUK;
- identifies, assesses and minimises the risks of pollution arising from the Installation’s activities;
- comprises a range of written procedures that cover all aspects of the Installation’s activities;
- identifies, sets, monitors, and reviews environmental objectives and key performance indicators; and
- includes a requirement to report annually on environmental performance, objectives, targets and future planned improvements.

3.1.4. The EMS has been reviewed to take account of the variation ensuring it remains appropriate and effective.

## 4. OPERATING TECHNIQUES

### 4.1. Technical Standards

4.1.1. **European Legislation** – The following European Legislation will be used to inform the variation application:

- the Industrial Emissions Directive (“IED”);
- the Best Available Techniques (“BAT”) Reference Document (“BRef”) for Waste Treatment (2018); and
- the Food, Drink and Milk BREF (2019).

4.1.2. **National Legislation** – the EA implement the requirements of the IED via the EP Regulations and have provided guidance documents to assist in the preparation of Environmental Permit applications and the ongoing management of permitted Installations which have been considered in this application. These includes:

- online EA guidance:
  - ‘Risk assessments for your environmental permit;
  - ‘Control and monitor emissions for your environmental permit;
  - ‘Surface water pollution risk assessment for your environmental permit’; and
  - ‘Develop a management system: environmental permits’;
- Technical guidance for regulated sectors:
  - ‘Non-hazardous and inert waste; appropriate measures for permitted facilities’; and
  - Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste.

### 4.2. Current Activities

#### Effluent Treatment and Drainage Arrangements

4.2.1. Effluent is produced at the Installation as a result of the following:

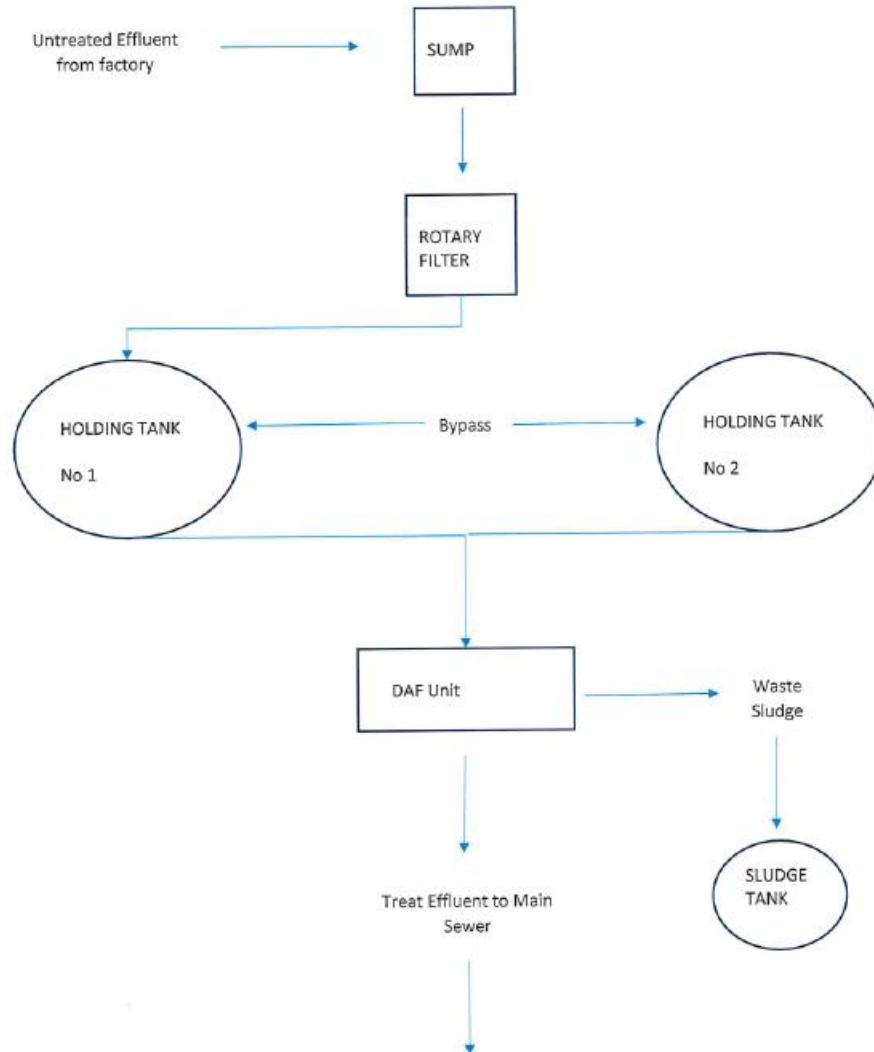
- butchery – blood drip loss and limited quantities of floor waste passing to the drainage system;
- curing includes dry curing and/or wet brine pumping of the product – brine salt and water mix;
- smoking system – pressure system (steam and hot water heating); and
- hygiene/cleaning – 24/7 hygiene function with various chemicals.

4.2.2. Historically, the existing Effluent Treatment Plant (“ETP”) system involved only one dissolved air flotation (“DAF”) unit (with a sump pit, holding balance tank) with outgoing effluent from the single DAF unit.



4.2.3. The effluent treatment flow chart prior to the variation is displayed in Figure 1.

**Figure 1: Existing Effluent Treatment Plant (“ETP”) Layout Prior to Variation**



4.2.4. The Environmental Permit details one emission point to sewer at the Installation designated as S1. The location is shown on the Site Layout Plan (DCUK.01.01-01) submitted in Section 3 of this application.

### **4.3. Proposed Activities**

#### **Effluent Treatment and Drainage Arrangements**

- 4.3.1. The location of the point source emission to sewer is proposed to remain in the same location with no proposed changes to the location of the discharge point.
- 4.3.2. Figure 2 below, illustrates the indicative layout of the proposed new effluent treatment system and the process flows are provided in Figure 3 and 4.
- 4.3.3. In 2008, a selector tank and aeration tank were added to the ETP along with a second DAF unit (Figure 3). In 2024, the ETP now also includes two surplus activated sludge tanks (Figure 4).
- 4.3.4. In accordance with CAR ID DP3631RA/0481808, this Permit variation is being submitted to capture the changes as part of the Environmental Permit to ensure it is reflective of current operations.

Figure 2: Proposed Effluent Treatment Layout

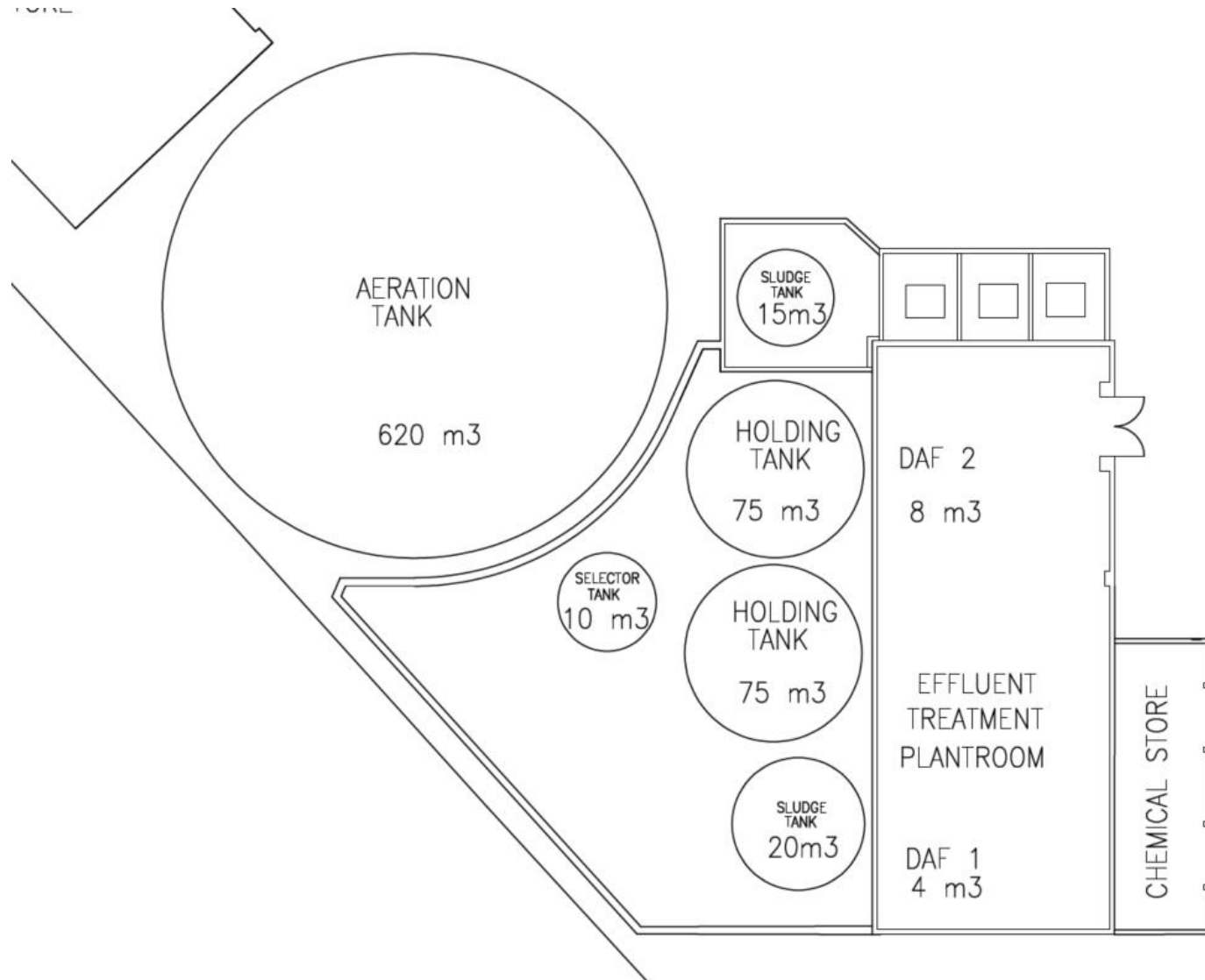


Figure 3: Proposed Effluent Treatment – Process Flow Diagram - 2008

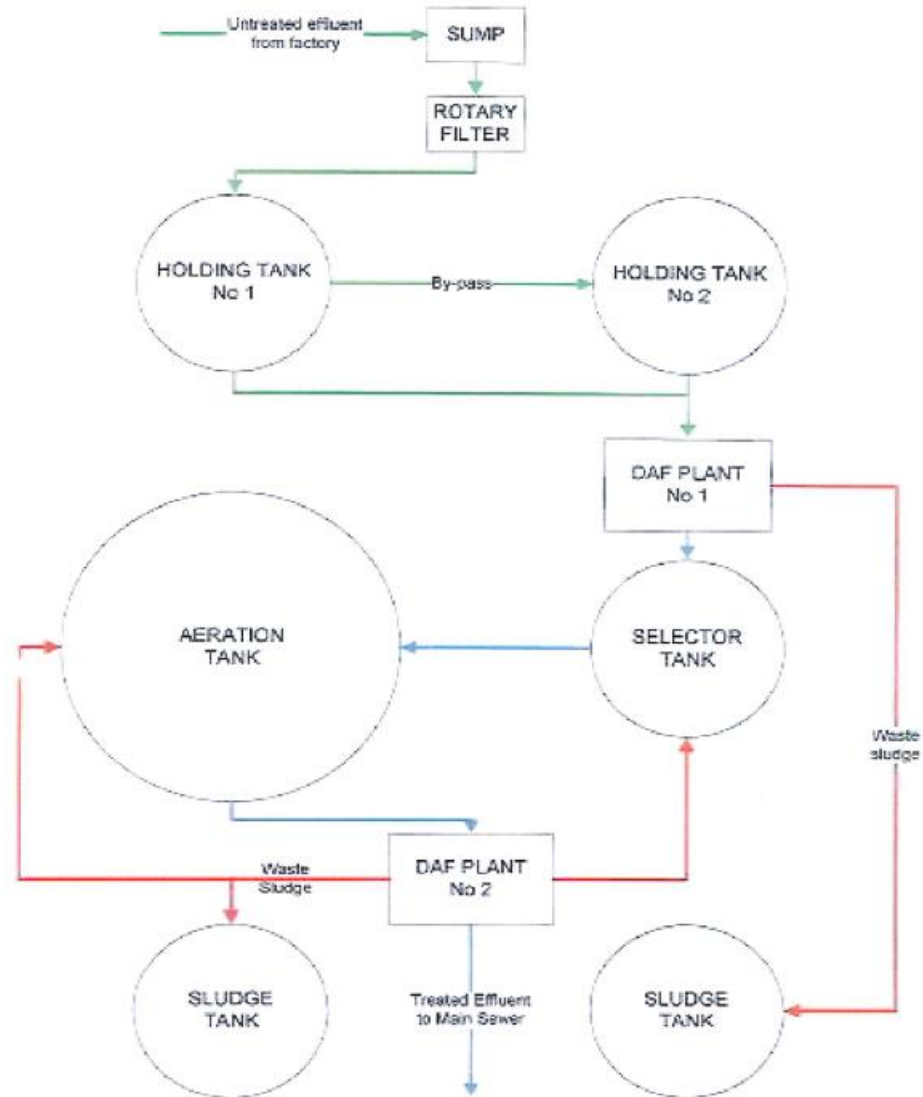
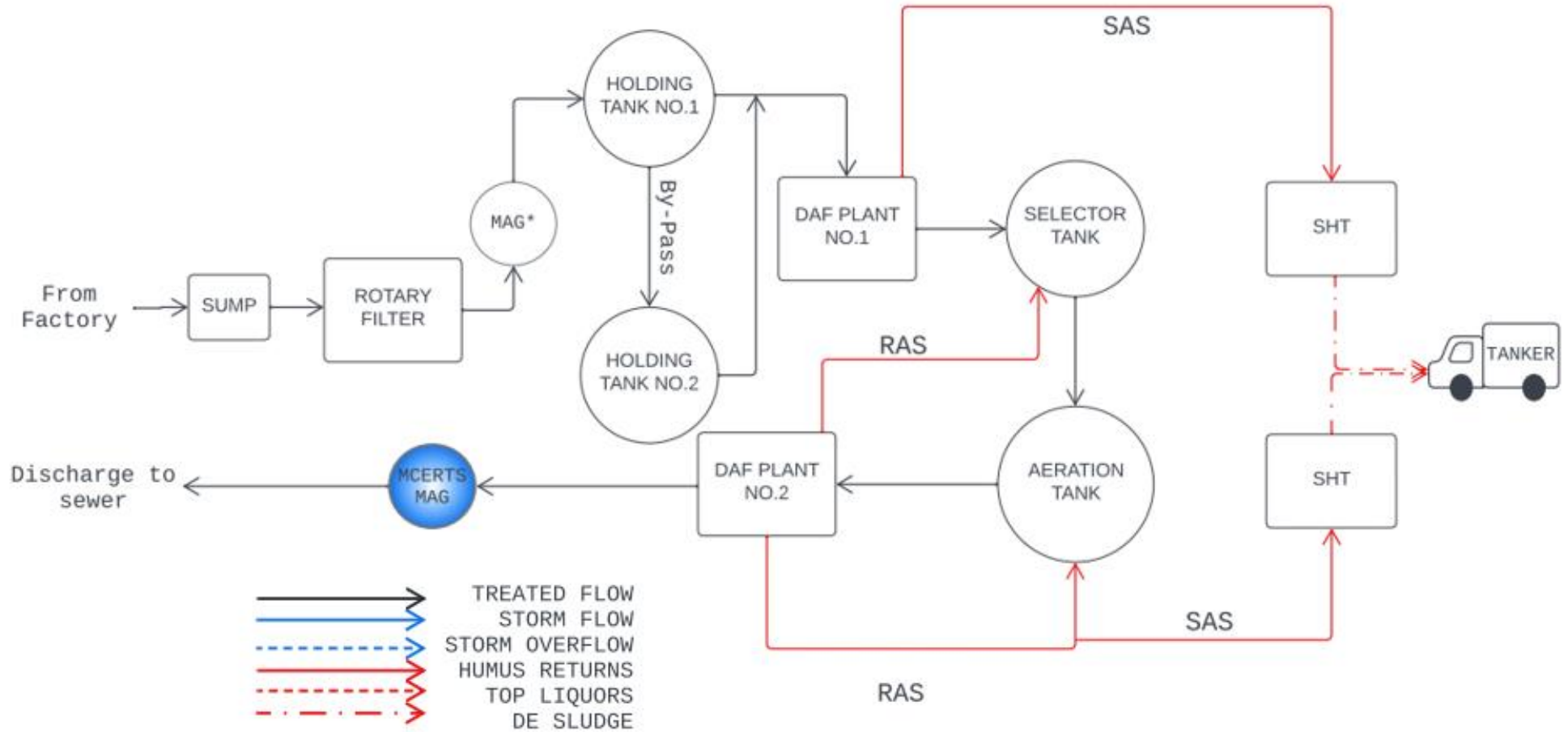


Figure 4: Proposed Effluent Treatment – Process Flow Diagram - 2024



Note to Figure: SHT – Solids Holding Tank. SAS – Surplus Activated Sludge. RAS – Return Activated Sludge.

## **5. EMISSIONS**

### **5.1. Current Arrangements - Point Source Emissions to Air**

5.1.1. There are eight point source emissions to air as summarised in Table 1 of this document.

### **5.2. Proposed Arrangements - Point Source Emissions to Air**

5.2.1. There are no changes to the point source emissions to air as part of this variation application.

### **5.3. Point Source Emissions to Land**

5.3.1. There are no point source emissions to land and no changes are proposed as part of this variation application.

### **5.4. Point Source Emissions to Surface Water**

5.4.1. There are no changes to the point source emissions to surface water associated with this variation application.

### **5.5. Point Source Emissions to Sewer – Current Arrangements**

5.5.1. Process effluent treated at the on-site ETP is currently discharged to foul sewer via emission point S1.

### **5.6. Point Source Emissions to Sewer – Proposed Arrangements**

5.6.1. Process effluent treated at the on-site ETP will continue to discharge to foul sewer via emission point S1.

5.6.2. As part of this variation, DCUK will continue to treat process effluent by physico-chemical treatment but also include biological treatment.

### **5.7. Fugitive Emissions to Air**

5.7.1. There are no changes to fugitive emissions to air as part of this permit variation.

### **5.8. Fugitive Emissions to Surface Water, Sewer and Groundwater**

5.8.1. There are no changes to fugitive emissions to surface water, sewer nor groundwater as part of this permit variation. All required control are in place to prevent fugitive releases.

## 6. GENERAL REQUIREMENTS

### 6.1. Complaint History

- 6.1.1. DCUK has confirmed that they have not received any substantiated nuisance complaints to date.

### 6.2. Emissions Management

- 6.2.1. The ERA (DCUK.01.01/ERA) has demonstrated that emissions of substances not controlled by emission limits (i.e. fugitive emissions) are not considered to be significant, consequently, an Emissions Management Plan is not required as part of this variation application.

### 6.3. Odour Management

- 6.3.1. A number of odour control measures have been implemented specifically related to the ETP.
- 6.3.2. An updated Odour Management Plan (“OMP”) (DCUK.01.01/OMP) has been prepared which forms part of the EMS and has been written in accordance with the requirements of the EA’s *‘How to Comply with your Environmental Permit, Additional Guidance for: H4 Odour Management’*.
- 6.3.3. The OMP has been updated to take account of the proposed activities and is submitted in Section 6 of this variation application. The ERA has demonstrated that with strict adherence to the control measures set out in the OMP, the risk of odour emissions beyond the Installation EP boundary is not considered to be significant.

### 6.4. Noise Management

- 6.4.1. It is not considered that the changes proposed as part of this variation will result in noise nuisance being experienced by sensitive receptors in the surrounding area.
- 6.4.2. The ERA has demonstrated that with strict adherence to the control measures set out in the ERA, risk of noise emissions beyond the Installation EP boundary is not considered to be significant. Consequently, a Noise Management Plan is not required as part of this application.

## **6.5. Pest Management**

- 6.5.1. In accordance with strict hygiene standards required for pork manufacture, a pest control system has been implemented at the Installation.
- 6.5.2. It is not considered that the changes proposed as part of this variation will lead to any significant increase in the attraction of pests to the Installation. The ERA demonstrates that with strict adherence to the control measures, the risk of pest nuisance is not considered to be significant. Consequently, a Pest Management Plan is not required as part of this variation application.

## **6.6. Fire Management**

- 6.6.1. The proposed variation will not increase fire risk at the Installation.



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## **7. APPLICATION SITE CONDITION REPORT**

- 7.1. The variation application does not propose any additional land to be incorporated, consequently, an updated Site Condition Report is not required as part of this application.

## **8. MONITORING**

### **8.1. Monitoring of Emissions to Air**

8.1.1. There are no changes to the point source emissions (i.e. process contributions) to air associated with this variation. Therefore, no additional air emissions monitoring is proposed.

### **8.2. Monitoring of Soil and Groundwater**

8.2.1. Fugitive releases will be prevented by conducting all operations in areas sealed with an impervious barrier to prevent a pathway for migration to ground or groundwater. Consequently, no additional monitoring of soil and groundwater is proposed in addition to the periodic monitoring which shall be carried out every 5 years for groundwater and every 10 years for soil.

### **8.3. Monitoring of Surface Water**

8.3.1. There are no changes to the point source emissions (i.e. process contributions) to surface water associated with this variation. Therefore, no additional surface water monitoring is proposed.

### **8.4. Monitoring of Foul Water – Current Arrangements**

8.4.1. There are no current Permit requirements to monitor the point source emissions to sewer, designated as S1.

8.4.2. Operator monitoring is undertaken which includes flow, levels, conductivity, polymer coagulant levels, pH, COD, caustic concentrations and temperature. The turbidity meter is also monitored, and automatic alarms are also present as part of the system.

### **8.5. Monitoring of Foul Water – Proposed Arrangements**

8.5.1. Operator monitoring as described in Point 8.4.4. will continue to be undertaken.

## 9. RESOURCE EFFICIENCY AND CLIMATE CHANGE

### 9.1. Overview

9.1.1. As part of the EMS, DCUK monitor the annual consumption of water, energy and raw materials, as well as the annual generation of residues and wastewater, with a frequency of at least once a year.

9.1.2. Energy consumption monitoring enables DCUK to set realistic but challenging improvement targets to reduce energy consumption.

### 9.2. Climate Change Agreement

9.2.1. DCUK entered into a Climate Change Agreement (“CCA”) on 1<sup>st</sup> November 2022.

### 9.3. Raw Material Justification

9.3.1. The following raw materials solely related to the ETP are as follows:

- SHWE30 Polymer;
- Sodium Hydroxide 32%;
- Sulphuric Acid 50%;
- Ferric Chloride 40%; and
- Pulsatec AF4 Antifoam.

9.3.2. These materials are required for foam, pH, flocculation and coagulation control.

9.3.3. It is not possible to substitute materials with waste as part of the proposals, however, DCUK undertake an annual review of raw material usage and investigate the suitability of raw materials with an improved environmental profile.

9.3.4. Water use is minimised which in turn reduces production of wastewater.

### 9.4. System Efficiency Measures

9.4.1. The efficiency measures include the following:

- electrical control system is designed for automatic start and stop;
- automatic drain valves are installed in the bottom sludge drains of the flotation unit; and
- recirculation.

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**9.5. Waste Minimisation**

- 9.5.1. As part of the initial concept and design of the improvement proposals, waste minimisation was considered.

## **10. COMPLIANCE WITH BAT CONCLUSIONS**

### **10.1. Appropriate BAT Conclusions – Waste Treatment BRef**

10.1.1. Compliance against BAT requirements within the Waste Treatment BRef has also been assessed for all aspects of the proposed variation. It is considered that the techniques that will be in use at the Installation will constitute BAT will be appropriate and proportionate to the scale of the activities at the Installation and the risks that are posed to the environment by the activities.

### **10.2. Appropriate BAT Conclusions – Food, Drink and Milk BRef**

10.2.1. Compliance against BAT requirements within the Food, Drink and Milk BRef has also been assessed for all aspects of the proposed variation. It is considered that the techniques that will be in use at the Installation will constitute BAT will be appropriate and proportionate to the scale of the activities at the Installation