

Permitting Decisions- Bespoke Permit

We have decided to grant the permit for Konings Juices and Drinks Suffolk operated by Konings Juices & Drinks UK Limited.

The permit number is EPR/GP3005LK/A001.

The application is for a bespoke Food and Drink installation that manufactures juice products from fruit and vegetables. This is an existing site where the capacity of the installation is now above 300 tonnes triggering the requirement for S6.8 A1 (d)(ii) Food and Drink installation permit under the Environmental Permitting Regulations (2016). There is also a 5.4 A1 (a)(i) effluent treatment plant which treats process waters from the factory, which is included in 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:

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

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

Read the permitting decisions in conjunction with the environmental permit.

Key issues of the decision

Defining the installation boundary

The installation consists of the juice production buildings the following ancillary plant defined as Directly Associated Activities (DAA).

- Two steam raising boilers – the steam is used to sterilise the bottles before they are filled.
- Scrubber – the scrubber treats paracetic acid heavy vapours produced from the bottle washing process.
- Lagoon – discharge of treated effluent and surface water into a purpose-built clay lined lagoon.
- Lagoon Aeration Plant – Pumping air into the lagoon in order to minimise odour generation from the lagoon.
- Surface Water Drainage – network of pipework that collects and treats surface and roof waters.
- Oil interceptor – treating surface and roof water prior to discharge.

There is also an effluent treatment plant that received process waters from the juice production buildings, which has been included as a listed activity in table S1.1.

The rationale for including the lagoon and not including the anaerobic digestion plant as DAAs are described in more detail below.

The decision to include the lagoon as a DAA and within the installation boundary was made on the following basis:

The treated effluent and surface water is discharged from the site is either sent to the River Box or to a purpose-built clay lined lagoon. The lagoon is owned by Boxford Suffolk Farms. They use the water from the lagoon to irrigate their orchards.

Konings Juices & Drink UK Limited (the operator) run and maintain aeration equipment in order to minimise the potential for the production of odours from the lagoon. This is not a further treatment process to improve the effluent quality. The operator is in control with regards to the operation of the lagoon and in managing the potential environmental impacts.

The lagoon plant must meet all three of the criteria in the definition of a DAA under Limb (ii) of the Environment Agency's RGN2 guidance:

- *2A – the activity must serve the STU and the STU must be the principle user.* The lagoon serves the installation collecting all treated effluent. It is also the principle user with only surface water from the installation discharging into the lagoon.

- *2B – the activity must have a technical connection.* There is a technical connection with treated effluent and surface water from the installation discharging into the lagoon.
- *2C – the activity must be capable of having an effect on emissions –* There are potential emissions in terms of odour and if out of consent effluent was discharged into the lagoon.

Therefore, as all three criteria are met the lagoon is considered to be a DAA.

The apple pumice generated as a waste after the apples have been mashed is sent to an adjacent anaerobic digestion (AD) Plant. The decision not to include the AD plant in the permit was made on the following basis:

The operator is not the principle user of the AD plant. The feedstock into the AD plant was provided by the operator as part of this determination (email 02/02/2021). Apple pumice from this installation accounts for approximately 14% of the total feedstock. The primary feedstock is Maize which accounts for 85% of the total feed stock.

The AD plant has two connections to the national grid. Allowing export of electricity in the event that the operator does not use any of the electricity generated.

The AD plant must meet all three of the criteria in the definition of a DAA under Limb (ii) of the Environment Agency's RGN2 guidance:

- *2A – the activity must serve the STU and the STU must be the principle user.* Although the activity serves the installation, the installation is not the principle user of the AD plant in terms of waste inputted. The AD plant could still operate if the installation was not there as it could supplement the 14% of apple pumice using a different feed stock and can export electricity generated to the national grid.
- *2B – the activity must have a technical connection.* There is a technical connection with waste from the installation being inputted into the AD plant and electricity being exported to the installation.
- *2C – the activity must be capable of having an effect on emissions –* There are emissions from the AD plant in terms of waste generated.

Therefore, as criteria 2A is not met the AD plant is not considered to be a DAA.

Discharge to the River Box and to the Lagoon

There is an existing discharge consent in place for this site. The emissions limits and requirements of the consent have been copied across into this permit with the following changes as requested by the operator.

- **The volumetric discharge to the lagoon has increased from 350m³/day to 450m³/day.** This increase has been assessed in a hydrogeological risk assessment (*Hydrogeological Risk Assessment in Support of application for discharge Consent Variation Hill Farm Boxford. Ref:3193/HRA, Version 1, November 2021*) which was submitted as part of the Schedule 5 response (submitted on 29/10/2021, 12/11/2021). We have audited the assessment and concluded that the increase in the discharge is not likely to significantly increase the environmental risk
- **The restriction in the discharge consent that allows a discharge to the River Box or the Lagoon has been removed. The operator is now permitted to discharge to the River Box and/or the Lagoon.**

There is no explanation for the inclusion of this restriction within the consent. We were unable to explain or justify its inclusion based on the records we hold.

We have also reviewed the hydrogeological risk assessment for the 450m³/day discharge to the lagoon and the H1 assessment for the 350m³ discharge to the River Box. There is no environmental impact from the discharges based on these assessments.

Without justification for the inclusion of the restriction and no indication of environmental impact from the assessments on the water discharges, it is not possible to justify the retention of the restriction.

Assessment of the discharge to the River Box

The discharge to the River Box has not changed. It remains as 350m³/day. The discharge of this volume and the potential impact on the environment was assessed and deemed acceptable by virtue of its inclusion in the discharge consent. Even though the discharge is not changing, as this is a new bespoke application then we are required to re-assess the discharge. Sampling of the discharge has been undertaken and characterisation of the discharge has been provided from an MCerts accredited third party company (Schedule 5 submitted on 29/10/2021, 12/11/2021).

The concentrations of hazardous substances listed in the characterisation of the discharge have been included in the H1 assessment. Four of the hazardous substances that were measured did not screen out at the final test in the H1 tool. The concentration of the 4 hazardous substances are recorded at the limit of detection (<5µg) in the sampling data. A figure of 5 µg was included in the H1 tool. However, the actual concentration could be anything less than that and there is uncertainty. We are unable to undertake any data modelling using the results from just one sample and thus cannot provide a more detailed assessment than what is currently presented in the H1 tool.

In order to assess this discharge a representative data set is required based upon 12 months of monitoring of the discharge. This requirement has been set out in IC14, which includes a list of the determinands that shall be monitored. We have also included IC15 which requires the operator to provide details of the monitoring that will be undertaken in order to approve IC14.

The operator is not currently discharging to the River Box via discharge point W1 as they are unable to consistently meet the Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD) limits. All treated effluent is currently sent to the lagoon and is discharged via discharge point W2. It is unlikely that there will be a discharge via W1 until such time as there is an upgrade to the Effluent treatment Plant. Therefore, the above programme of monitoring requested under IC14 shall be provided from a representative sample point within 14 months of the issue of the permit. We have also included a preoperational condition (PO1) requesting that the operator notifies the environment agency prior to the discharge of treated effluent via discharge point W1.

The operator did not assess sanitary determinands within the discharge to the River Box. Therefore, we have included an improvement condition (IC8) requesting that this assessment is undertaken in line with the Environment Agency guidance '*H1 Annex D2 – Assessment of sanitary and other pollutants within Surface Water Discharge*'.

The operator already has a discharge consent, the requirements of which have been transferred into the permit. In order to obtain the existing consent, the discharge from the site will have been assessed and deemed acceptable at the time of issue by the Environment Agency. As this is a bespoke permit we need to ensure that the discharge to water continues to be acceptable based on the proposals in this application. This establishes a baseline from which any future changes to the discharge will be assessed. The nature of the discharge may have changed so we have asked for monitoring under IC14 and IC15 so if there have been any changes since the consent was issued then these will be picked up through this monitoring programme. The sanitary determinands will be assessed through IC8. Any actions that are required will be taken on completion of the Improvement Conditions.

Discharge to air from Boilers

The operator provided a completed H1 tool that assessed the emissions from the two boilers (A1 - 4.41MWth and A2 - 4.87MWth) that are located on this installation. Both boilers are used as part of daily operations at the installation. The H1 assessment includes the emissions from both boilers in the assessment. The results presented in the H1 tool show an exceedance of the short and long term assessment criteria for nitrogen dioxide (The results from the H1 tool are based upon the highest concentration of NO_x within the assessment area and does not relate to specific human or ecological receptors).

We undertook our own assessment of the emissions from both boilers using the Environment Agency's screening tools. These tools allow for more input data to be included compared to the H1 tool, leading to more realistic predictions. We assessed both boilers using the screening tools, the results from this scenario screened out. There were no exceedances of the short and long term assessment criteria for nitrogen dioxide at all human and ecological receptor points that were included (closest receptor points around the installation were assessed).

No further assessment is necessary as all emissions screen out.

Fuel oil tank

There is one 45m³ fuel oil storage tank located on the installation. The fuel oil is used in the steam raising boilers if the natural gas supply is interrupted. The fuel oil tank is un-bunded, therefore, it does not comply with the oil storage regulations and CIRIA 736. An improvement condition (IC9) has been included in the permit requiring the operator to either include bunding around the tank or installed a replacement fuel tank. Due to the space limitations around the tank the operator's preferred option is to replace the fuel tank.

Interim measures are in place in the event of leakages and spillages and in the unlikely event of total tank failure. Minor leakages and spillages are managed using spill kits in accordance with the site's spillage procedures (ESPW1 provided with Schedule 5 response 29/10/2021, 12/11/2021).

If there is total loss of containment the oil would enter the drainage system and be stored in the sludge tank associated with the effluent treatment plant. An inflatable bung would also be inserted into the surface water drainage system to prevent any oil entering the River Box or the Lagoon. The oil would be held in the sludge tank until a tanker arrives to remove it. A jetting and cleaning team would then clean the drains and remove any residual oil. Checks would be undertaken to ensure that the drainage system at various points to ensure that is suitably clean and that it can receive surface waters. An improvement condition has been included (IC6) requiring the operator to provide a procedure for this interim measure, which will be in place until such time a full bunded and compliant fuel tank is installed.

Scrubber

The chemical scrubber treats peracetic acid heavy vapours generated from the bottle sterilisation process. The vapour is treated using a sodium hydroxide buffer solution. A pH probe is used which alerts an operative for the need to replenish the buffer solution and there is a redox probe providing an alert that sodium sulphite needs to be added. The maintenance of the scrubber is undertaken by the onsite engineering team.

There is currently no maintenance procedure in place for the scrubber and any actions are undertaken on a reactive basis. An improvement condition (IC3) has been added to the permit requesting that one is produced so that a more proactive maintenance programme can be put in place.

Sodium peracetate drops out of the solution and builds up as a salt deposit in the scrubber. This scrubber tank and re-circulation pipework is emptied ever three months. Once emptied a 2% solution of nitric acid is circulated through the system to descale it. The emptied solution from the scrubber is significantly diluted in the effluent treatment system. The effluent treatment process has a pH probe and there is pH correct before any further treatment. The risks from the scrubber solution are thus considered to be minimal.

There is also a discharge to air from the scrubber. The operator has not been able to provide monitoring data for the scrubber as part of this application. Therefore, we have included an improvement condition (IC4) requesting that monitoring is undertaken of the emissions from the scrubber and that these are assessed using the H1 tool (IC5).

Best Available Techniques (BAT) Assessment

As part of this determination, a BAT review has been undertaken against the Food, Drink and Milk Industries BRef and BAT conclusions (4th December 2019). This is in advance of the scheduled permit review that is to be undertaken by the

Environment Agency, which for this food and drink sub-sector is expected to be later in 2022.

The operator completed the template BAT Conclusions review spreadsheet that will be sent to operators as part of the Regulation 61 notice as part of the permit review process. The operator is either compliant or will be future compliant with all the BAT Conclusions. Those BAT conclusions where the operator will be future compliant are listed below and the mechanisms by which this will be achieved are described.

- BAT 2 – An improvement Condition (IC13) has been included in the permit requesting that the Environment Management System (EMS) is updated so that it is in accordance with points I and II under BAT2.
- BAT 33 – The operator does not currently comply with the energy consumption and wastewater Associated Environmental Performance Levels (AEPLs) in table 23 and 24 respectively of section 11. Improvement Condition (IC10) has been included in the permit requesting the operator to set out a plan for achieving the AEPLs.

At the time of writing the review permit templates were not available. Should any additional conditions or emission limits be required then these will be incorporated as part of the permit review process or as part of a subsequent variation.

Table 1 Comparison of Indicative BAT with key measures proposed by the operator		
BAT ref.	Indicative BAT	Key measures proposed
1	EMS	Compliant: EMS certified to ISO 1400 is in place. The operator has described how the EMS will includes all points (i) – (xx) as described under BAT1.
2	EMS – inventory of inputs & outputs to increase resource efficiency and reduce emissions.	<p>Future Compliant:</p> <p>I – Environmental Aspects Register identifies emissions from the process and how they are controlled. Improvement Condition 13 to be included requiring process flow diagram indicating origin of emissions.</p> <p>II – Water usage is monitored on a daily basis. Usage is reviewed each morning and any issues flagged in daily morning meeting. Water usage against production volume in litres is measured. Improvement Condition 13 to be included requiring provision of drawings showing where water is used on site.</p> <p>III a. – Flow is monitored at 15-minute intervals. b. – Daily samples taken and BOD, TSS and Ammoniacal Nitrogen measured.</p>

		<p>IV – Annual monitoring of 2 boiler exhausts undertaken. H1 assessment and our own assessment shows no impact from emissions. Emissions from Air Scrubber will be assessed.</p> <p>V – Energy usage monitored and reduction targets set.</p> <p>VI – Monitoring of energy, raw materials and water is undertaken and recorded.</p>
3	Emissions to water – monitor key process parameters	Compliant: Wastewater from installation goes through Pre DAF plant. The flow and pH are measured corrected as required before the water goes to the aeration tank. Flow is also measured at the discharge point to water.
4	Monitor emissions to water	<p>Compliant:</p> <p>The permit limits from the operators discharge consent have been copied across into this permit. Limits have been set for daily discharge, flow, Biochemical Oxygen Demand (BOD), Suspended Solids, Ammoniacal nitrogen and pH. A visual inspection of oil and grease is also required.</p> <p>In order to comply with this BAT requirement monitoring and emission limits have also been included for Chemical Oxygen Demand (COD), Total Nitrogen and Total phosphorous.</p> <p>The monitoring standard for BOD has been changed to EN-1899-1 to comply with the requirements of this BAT conclusion.</p> <p>Monitoring and an associated limit has not been set for Chlorine as it is not a parameter of concern for this sub-sector (fruit juice manufacturer) of the Food and Drink industry (see email 08/03/22).</p> <p>Monitoring for Total organic carbon has not been included as it is an alternative for COD monitoring.</p>
5	Monitor channelled emissions to air	N/A. (no relevant channelled air emissions)
6	Energy efficiency	<p>Compliant:</p> <ol style="list-style-type: none"> a. Energy efficiency plan in place at the installation. Energy and water usage monitored on production lines. Targets set to reduce energy usage and progress against targets discussed at weekly management meeting. b. Energy Efficiency measures include generation of own electricity to meet sites energy demands through anaerobic digestion of apple pumice and solar panels, LED lighting with PIR sensors.
7	Water and wastewater minimisation	<p>Compliant: the common techniques listed under this BAT conclusion that are employed at the installation are described below:</p> <ol style="list-style-type: none"> a. Water reclaimed from bottle washing, reverse osmosis and nanofiltration processes and is reused in the CIP, pasteuriser and the filler.

		<ul style="list-style-type: none"> b. Optimisation of water flow is achieved using flow meters, level sensors and automated valves to automatically adjust water flows based on requirements. c. Nozzles in tanks are designed to minimise amount of water required to clean. d. Water streams are segregated surface water is sent to the lagoon via an oil interceptor and process water is sent to Effluent Treatment Plant (ETP). e. Cleaning procedures remove solid debris prior to washing. g. High pressure cleaning used as part of some cleaning applications. h. The CIP is monitored weekly to ensure optimisation of chemical dosing and water usage. A six-monthly review with chemical supplier is in place. i. Foamers are used to clean walls, floors and equipment. j. New equipment is assessed and reviewed before use to ensure it is suitable. k. Cleaning of equipment occurs at the end of each production run.
8	Use of harmful substances	<p>Compliant:</p> <ul style="list-style-type: none"> a. Review of chemicals used with supplier. b. Chemicals are reused with fresh chemical being added as required. c. Dry cleaning is in place with solid debris removed prior to washing. d. Equipment optimised to minimise water and chemical usage with chemicals automatically dosed to ensure only amounts that are required are used.
9	Use of refrigerants	Non-ozone depleting chemicals used in refrigerants (Ammonia)
10	Resource efficiency	<p>Compliant: the common techniques listed under this BAT conclusion that are employed at the installation are described below:</p> <ul style="list-style-type: none"> a. The apple pomace is sent for anaerobic digestion (AD) at the adjacent plant. c. Residues are separated at the effluent treatment plant (ETP) with the sludge cake sent to the AD plant. f. Any wastewater that cannot be discharged is sent to the AD plant. The operator takes advantage of the high nutrient content to generate electricity.
11	Emissions to water – wastewater buffer storage	Compliant: There is 1,850m ³ capacity in the aeration tanks. There is 10m ³ in the sump pit, 10m ³ in the balance tank and 400m ³ in the sludge tank. There is also the option to divert wastewater to the AD plant. There are a range of buffer storage capacity options available at the installation.

		<p><u>Table 1 – BAT- associated emission levels (BAT_AELS)</u></p> <p>The upper limit of the range is used when setting the BAT-AEL. Limits have been set in the permit based on the requirements set out in this table as specified below:</p> <ul style="list-style-type: none"> - Chemical oxygen demand (COD) – 100 mg/l - Total suspended solids (TSS) – Limit of 20 mg/l for River Box and 30 mg/l for the lagoon set for TSS based upon what is required to protect the receiving water course. This limit is tighter than what is specified in table 1 for TSS. - Total nitrogen (TN) – 20 mg/l - Total phosphorous – 5mg/l set in accordance with footnote 9 which applies to fruit and vegetable installations.
12	Emissions to water - treatment	<p>Compliant: An ETP is located on the installation. Treatment techniques as described under the BAT conclusion are used:</p> <ul style="list-style-type: none"> • Equalisation – flow to ETP balanced using a balance tank. • Neutralisation – pH is balanced at the Pre DAF stage. • Physical Separation – the Pre DAF removes solids through flotation in water. • Aerobic treatment – two aeration tanks used. (tank 1 – 1200m³ and tank 2 650m³) • j,k,l,m – suspended solids are removed in the post DAF plant.
13	Noise – management plan	<p>Compliant: Noise is not expected to be an issue on the installation due to its location away from sensitive receptors. Even so a Noise management Plan has been produced.</p>
14	Noise minimisation	<p>Compliant: Production takes place in a building. Noise from deliveries managed as part of NMP.</p>
15	Odour – management plan	<p>Compliant: Odour not expected to be an issue due to location away from sensitive receptors. Even so an Odour Management Plant has been produced.</p>
<p>Section 11 - BAT CONCLUSIONS FOR SOFT DRINKS AND NECTAR/JUICE MADE FROM PROCESSED FRUIT AND VEGETABLES</p>		
33	Energy Efficiency	<p>Compliant: the common techniques listed under this BAT conclusion that are employed at the installation are described below:</p> <ol style="list-style-type: none"> a. A single pasteuriser is used for juice production at the installation. b. Homogeniser is used for juice production for one

		product at the site.
33 (section 11.1 table 23)	Indicative performance level for specific energy consumption 0.01-0.035 MWh/hl of products (yearly average)	Future Compliant: Installation results 2020 0.074 MWh/hl (Electricity, LPG and Oil) There are a number of initiatives that are underway at the installation to reduce energy consumption. These have been set out in the operators BAT review. For example: - Review of Boiler Efficiency.
33 (section 11.2 table 24)	Indicative environmental performance level for specific wastewater discharge 0.08-0.20 m3/hl of products (yearly average)	Future Compliant: Installation results 2020 0.399 m3/hl There are a number of initiatives that are underway at the installation to reduce water usage and recover and reuse water. These have been set out in the operators BAT review. For example: - Reduce amount of water used by 50m ³ per day. (Project '50 cubes)

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.

Consultation

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 – Planning (Babergh District Council and Suffolk County Council)
- Local Authority – Environmental Health (Babergh District Council and Suffolk County Council)
- Food Standards Agency
- Health and Safety Executive
- Director of Public Health
- Public Health England

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

Operator

We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.

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', Appendix 1 of RGN 2 'Interpretation of Schedule 1' and Medium Combustion Plant Directive.

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.

These show the extent of the site of the facility including the discharge points.

The plans show the location of the part of the installation to which this permit applies on that site.

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.

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, landscape and heritage, and/or protected species or habitats identified.

There are no SACs (Special Areas of Conservation), SPAs (Special Protection Area), Ramsar or SSSI Sites of Special Scientific Interest within the screening distances. We have not consulted Natural England

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.

Climate change adaptation

We have assessed the climate change adaptation risk assessment.

We consider the climate change adaptation risk assessment is satisfactory.

We have decided to include a condition in the permit requiring the operator to review and update their climate change risk assessment over the life of the permit.

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 operator must use are specified in table S1.2 in the environmental permit.

Operating techniques for emissions that screen out as insignificant

Emissions as detailed below have been screened out as insignificant, and so we agree that the operator's proposed techniques are Best Available Techniques (BAT) for the installation. (See Key Issues Section for more details)

Emissions to Air

Nitrogen dioxide
Carbon monoxide

Emissions to Water

Hazardous Pollutants will be assessed through IC14 and IC15
Sanitary determinands will be assessed through completion of IC8.

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

This permit will be reviewed against the latest Food and Drink BREF and BAT Conclusions document (December 2019) as part of our permit review process and will be updated as necessary to align it with BAT requirements.

Odour management

We have reviewed the odour management plan in accordance with our guidance on odour management.

We consider that the odour management plan is satisfactory and we approve this plan.

We have approved the odour management plan as we consider it to be appropriate measures based on information available to us at the current time. The operator should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The operator should keep the plans under constant review and revise them annually or if necessary sooner if there have been complaints arising from operations on site or if circumstances change. This is in accordance with our guidance 'Control and monitor emissions for your environmental permit'.

The plan has been incorporated into the operating techniques S1.2.

Noise and vibration management

We have reviewed the noise and vibration management plan in accordance with our guidance on noise assessment and control.

We consider that the noise and vibration management plan is satisfactory and we approve this plan.

We have approved the noise and vibration management plan as we consider it to be appropriate measures based on information available to us at the current time. The operator should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The operator should keep the plans under constant review and revise them annually or if necessary sooner if there have been complaints arising from operations on site or if circumstances change. This is in accordance with our guidance 'Control and monitor emissions for your environmental permit'.

The plan has been incorporated into the operating techniques S1.2.

Raw materials

We have specified limits and controls on the use of raw materials and fuels.

Pre-operational conditions

Based on the information in the application, we consider that we need to include pre-operational conditions.

PO1 – Notification prior to approval by the Environment Agency before commencement of any discharge to the River Box of treated waste-water via discharge point W1. We require this notification to ensure that the discharge will be able to meet the discharge limits set in table S3.2 of the permit before it re-commences.

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:

- IC1 - Procedures are in place to minimise the environmental risks associated with refilling the fuel oil storage tank.
- IC2 - A contingency plan is included in the Odour Management Plan (OMP) to ensure that there are back up odour control measures for all odour sources if the primary odour control measures fail.
- IC3 - Procedures are in place to ensure that the air scrubber is operated and maintained to ensure it works effectively to abate emissions from the bottle sterilisation equipment.
- IC4 - Monitoring is undertaken of emissions from the air scrubber equipment to allow for an assessment of the emissions to ensure that it is effective.
- IC5 - Using monitoring data from IC4 to assess the emissions from the air scrubber to ensure there is no environmental impact from these emissions on human and ecological receptors, which was not provided as part for the application.
- IC6 - Procedures are in place to minimise the environmental risks associated from the total loss of containment of from the fuel oil storage tank.
- IC7 - Procedures are in place to minimise the environmental risks associated from the total loss of containment of from the storage tanks/drums etc that raw materials, chemicals, wastes and products are stored in.

- IC8 - An assessment is undertaken to assess the sanitary derminands in the discharge to the River Box which was not provided as part of the application.
- IC9 - The fuel oil tank is upgraded or replaced to ensure compliance with the Oil Storage Regulations 2001 and Ciria 736.
- IC10 - To ensure compliance with the Food and Drink BREF and BAT Conclusions documents (December 2019).
- IC11 - To ensure compliance with the Food and Drink BREF and BAT Conclusions documents (December 2019).
- IC12 - To ensure compliance with the Food and Drink BREF and BAT Conclusions documents (December 2019).
- IC13 - To ensure compliance with the Food and Drink BREF and BAT Conclusions documents (December 2019).
- IC14 – To ensure that representative sampling of the discharge to the River Box via emission point W1 is undertaken and that the potential impacts of the discharge are assessed. See Key issues section.
- IC15 – To ensure monitoring proposals are acceptable before sampling as requested under IC14 begins.

Emission Limits

We have decided that emission limits are required in the permit.

Emission Limit Values (ELVs) have been added for the following substances:

- Nitrogen Dioxide

The two boilers are being brought under regulation for the first time. Limits are therefore included in the permit. As the boilers were put into operation prior to December 2018 they are classed as existing plant under the Medium Combustion Plant Directive.

- Total daily volume of discharge
- 15-minute instantaneous or averaged flow
- ATU-BOD as O₂
- Suspended solids (measured after drying at 105°C)
- Ammoniacal nitrogen (expressed as N)

The above emission limits have been copied across from the existing discharge consent. For further information see the Discharge to the River Box and Lagoon section of the Key issues.

- Chemical Oxygen Demand
- Total nitrogen
- Phosphorous

The above parameters have emission limits set based upon the requirements of BAT11 in the Food and Drink BAT conclusions document.

Monitoring

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

Monitoring has been included for the two boilers being added (emission points A1 and A2) for Nitrogen Dioxide and Carbon Monoxide with the method and frequency as specified in the permit.

Monitoring has been included for the discharge to the River Box and Lagoon based upon the requirements of the existing discharge consent and BAT4 in the Food and Drink BAT conclusions document, for the parameters listed in the emission limits section.

These monitoring requirements have been included in order to comply with the requirements of the Medium Combustion Plant Directive.

Reporting

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

Reporting has been included for the two boilers being added (emission points A1 and A2) for Nitrogen Dioxide and Carbon Monoxide to report against the monitoring requirements as described above.

Reporting has been included for the discharge to the River Box and Lagoon based upon the requirements of the existing discharge consent and BAT4 in the Food and Drink BAT conclusions document, for the parameters listed in the emission limits section.

We made these decisions in accordance with the requirements of the Medium Combustion Plant Directive.

Considerations of foul sewer

We agree with the operator's justification for not connecting to foul sewer.

The facility is in a location where it is not reasonable to connect to the foul sewer.

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.

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.

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.

No comments were received from: Food Standards Agency, Health and Safety Executive and Director of Public Health

Responses from organisations listed in the consultation section:

Response received from:

Public Health England (14/05/2021)

Brief summary of issues raised:

The consultee highlights that the main emissions from the facility are those regarding air quality and odour. The response notes that a comprehensive odour management plan has been submitted as part of the application. They request that any effects of air quality are fully considered, with mitigation included as necessary such as particulates and nitrogen dioxide.

Summary of actions taken:

There are three point source emissions to air from the installation from the two boilers (A1, A2) and from an air scrubber (A3).

The emissions of nitrogen dioxide and carbon monoxide from the two boilers on the installation have been assessed using the H1 tool and our auditing tools. All emissions screen out and no further assessment is required.

The emissions from the scrubber are to be monitored and will be assessed using the H1 tool. Improvement Conditions 4 and 5 have been included requesting this work is undertaken.

The odour management plan (OMP) has been assessed and is considered acceptable to manage the odour risk from the installation, subject to the submission of a contingency plan in the event primary odour control fail in accordance with IC2.

Response received from:

Environmental Health - Suffolk County Council (17/05/2021)

Brief summary of issues raised:

The consultee states that they have no significant concerns regarding the application.

The consultee has replicated the comments raised by Public Health England. The actions taken with regards to these are described above.

Summary of actions taken:

No action required.

Response received from:

Environmental Health/Local Planning Authority - Babergh and Suffolk District Councils (28/04/2021).

Brief summary of issues raised:

No issues raised. Consultee highlights that odour and noise were considered as part of the planning application.

Summary of actions taken:

No action required.

Response received from:

Environmental Health - Babergh and Suffolk District Councils (27/04/2021).

Brief summary of issues raised:

The consultee states that they have been sent the consultation with a request to comment on the site's water supply. The supply is regularly monitored by the council. To date, and under current water discharge arrangements, they have not encountered any issues with regards to the quality of the water supply. They have no objections to the proposed changes.

Summary of actions taken:

The water discharge from the installation into the River Box and lagoon has been assessed as described in the key issues section of this document. It has been concluded that both discharges are acceptable as proposed. Therefore, it is not anticipated that there would be any impact of the water supply described.