

Review of an Environmental Permit for an Installation subject to Chapter II of the Industrial Emissions Directive under the Environmental Permitting (England & Wales) Regulations 2016 (as amended)

Decision document recording our decision-making process following review of a permit

The Permit number is: EPR/AP3634FT
The Operator is: Princes Limited
The Installation is: Lynn Road Food Factory
This Variation Notice number is: EPR/AP3634FT/V005

What this document is about

Article 21(3) of the Industrial Emissions Directive (IED) requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication by the European Commission of updated decisions on best available techniques (BAT) Conclusions.

We have reviewed the permit for this installation against the BAT Conclusions for the Food, Drink and Milk Industries published on 4th December 2019 in the Official Journal of the European Union. In this decision document, we set out the reasoning for the consolidated variation notice that we have issued.

It explains how we have reviewed and considered the techniques used by the Operator in the operation and control of the plant and activities of the installation. It is our record of our decision-making process and shows how we have taken into account all relevant factors in reaching our position.

As well as considering the review of the operating techniques used by the Operator for the operation of the plant and activities of the installation, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issue. Where this has not already been done, it also modernises the entire permit to reflect the conditions contained in our current generic permit template.

The introduction of new template conditions makes the Permit consistent with our current general approach and with other permits issued to Installations in this sector. Although the wording of some conditions has changed, while others have been deleted because of the new regulatory approach, it does not reduce the level of environmental protection achieved by the Permit in any way. In this document, we therefore address only our determination of substantive issues relating to the new BAT Conclusions.

We try to explain our decision as accurately, comprehensively and plainly as possible. Achieving all three objectives is not always easy, and we would welcome any feedback as to how we might improve our decision documents in future.

How this document is structured

1. Our decision
2. How we reached our decision
3. The legal framework
4. Annex 1 – Review of operating techniques within the Installation against BAT Conclusions.
5. Annex 2 – Review and assessment of changes that are not part of the BAT Conclusions derived permit review
6. Annex 3 – Improvement Conditions

1 Our decision

We have decided to issue the Variation Notice to the Operator. This will allow the Operator to continue to operate the Installation, subject to the conditions in the Consolidated Variation Notice that updates the whole permit.

We consider that, in reaching our decision, we have taken into account all relevant considerations and legal requirements and that the varied permit will ensure that a high level of protection is provided for the environment and human health.

The Consolidated Variation Notice contains many conditions taken from our standard Environmental Permit template including the relevant annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the Notice, we have considered the techniques identified by the operator for the operation of their installation, and have accepted that the details are sufficient and satisfactory to make those standard conditions appropriate. This document does, however, provide an explanation of our use of “tailor-made” or installation-specific conditions, or where our Permit template provides two or more options.

2 How we reached our decision

2.1 Requesting information to demonstrate compliance with BAT Conclusion techniques

We issued a Notice under Regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 09/06/2022 requiring the Operator to provide information to demonstrate where the operation of their installation currently meets, or how it will subsequently meet, the revised standards described in the relevant BAT Conclusions document.

The Notice required that where the revised standards are not currently met, the operator should provide information that:

- describes the techniques that will be implemented before 4 December 2023, which will then ensure that operations meet the revised standards, or
- justifies why standards will not be met by 4 December 2023, and confirmation of the date when the operation of those processes will cease within the Installation or an explanation of why the revised BAT standards are not applicable to those processes, or
- justifies why an alternative technique will achieve the same level of environmental protection equivalent to the revised BAT standards described in the BAT Conclusions.

Where the Operator proposed that they were not intending to meet a BAT standard that also included a BAT Associated Emission Level (BAT-AEL) described in the BAT Conclusions Document, the Regulation 61 Notice required that the Operator make a formal request for derogation from compliance with that BAT-AEL (as provisioned by Article 15(4) of IED). In this circumstance, the Notice identified that any such request for derogation must be supported and justified by sufficient technical and commercial information that would enable us to determine acceptability of the derogation request.

The Regulation 61 Notice response from the Operator was received on 04/10/2022.

We considered it was in the correct form and contained sufficient information for us to begin our determination of the permit review but not that it necessarily contained all the information we would need to complete that determination.

The Operator made no claim for commercial confidentiality. We have not received any information in relation to the Regulation 61 Notice response that appears to be confidential in relation to any party.

2.2 Review of our own information in respect to the capability of the Installation to meet revised standards included in the BAT Conclusions document

The operator does not currently comply with the requirements of BATc 6 (a), 7 (a) and 9 In relation to these BAT Conclusions, the operator has committed compliance by 4 December 2023. We have therefore included Improvement Conditions 11 and 12 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions are delivered before 4 December 2023.

2.3 Requests for further information during determination

Although we were able to consider the Regulation 61 Notice response generally satisfactory at receipt, we did in fact need more information in order to complete our permit review assessment, and issued a further information request on 13/10/2023, this related to BAT 6 and 7 in addition to the site EPLs. A copy of the further information request was placed on our public register.

3 The legal framework

The Consolidated Variation Notice will be issued under Regulations 18 and 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* as described by the IED;
- subject to aspects of other relevant legislation which also have to be addressed.

We consider that, in issuing the Consolidated Variation Notice, it will ensure that the operation of the Installation complies with all relevant legal requirements and that a high level of protection will be delivered for the environment and human health.

We explain how we have addressed specific statutory requirements more fully in the rest of this document.

Annex 1: decision checklist regarding relevant BAT Conclusions

BAT Conclusions for the Food, Drink and Milk Industries, were published by the European Commission on 4 December 2019.

There are 37 BAT Conclusions.

BAT 1 – 15 are General BAT Conclusions (Narrative BAT) applicable to all relevant Food, Drink and Milk Installations in scope.

BAT 16 – 37 are sector-specific BAT Conclusions, including Best Available Techniques Associated Emissions Levels (BAT-AELs) and Associated Environmental Performance Levels (BAT-AEPLs):

| | |
|-------------|--|
| BAT 16 & 17 | BAT Conclusions for Animal Feed |
| BAT 18 – 20 | BAT Conclusions for Brewing |
| BAT 21 – 23 | BAT Conclusions for Dairies |
| BAT 24 | BAT Conclusions for Ethanol Production |
| BAT 25 & 26 | BAT Conclusions for Fish and Shellfish Processing |
| BAT 27 | BAT Conclusions for Fruit and Vegetable Processing |
| BAT 28 | BAT Conclusions for Grain Milling |
| BAT 29 | BAT Conclusions for Meat Processing |
| BAT 30 – 32 | BAT Conclusions for Oilseed Processing and Vegetable Oil Refining |
| BAT 33 | BAT Conclusions for Soft Drinks and Nectar/Fruit Juice Processed from Fruit and Vegetables |
| BAT 34 | BAT Conclusions for Starch Production |
| BAT 35 – 37 | BAT Conclusions for Sugar Manufacturing |

This annex provides a record of decisions made in relation to each relevant BAT Conclusion applicable to the installation. This annex should be read in conjunction with the Consolidated Variation Notice.

The overall status of compliance with the BAT conclusion is indicated in the table as:

NA – Not Applicable

CC – Currently Compliant

FC – Compliant in the future (within 4 years of publication of BAT Conclusions)

NC – Not Compliant

| BATC No. | Summary of BAT Conclusion requirement for Food, Drink and Milk Industries | Status NA/ CC / FC / NC | Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement |
|---|---|----------------------------|--|
| GENERAL BAT CONCLUSIONS (BAT 1-15) | | | |
| 1 | <p>Environmental Management System - Improve overall environmental performance.</p> <p>Implement an EMS that incorporates all the features as described within BATc 1.</p> | CC | <p>The operator has provided information to support compliance with BATc 1. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 1.</p> <p>The operator has an EMS externally accredited to the ISO14001 standard.</p> |
| 2 | <p>EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions.</p> <p>Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.</p> | CC | <p>The operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 2.</p> <p>The operator has an EMS externally accredited to the ISO14001 standard. In addition this is continuously reviewed and updated to be in-keeping with BAT.</p> |
| 3 | <p>Monitoring key process parameters at key locations for emissions to water.</p> <p>For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).</p> | CC | <p>The operator has provided information to support compliance with BATc 3. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 3.</p> <p>The operator monitors all waste stream for key parameters including: Volume, temperature, COD, Suspended Solids, pH, Sulphides and sulphites. The waste stream is monitored at a key location, this being the point before it is discharged to sewer.</p> |
| 4 | <p>Monitoring emissions to water to the required frequencies and standards.</p> <p>BAT is to monitor emissions to water with at least the frequency given [refer to BAT 4 table in BATc] and in accordance with EN standards. If EN standards are</p> | NA | <p>We are satisfied that BATc 4 is not applicable to this Installation.</p> |

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| | not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality. | | The site has no direct discharges to water, all process effluent is discharged to sewer operated by Anglian Water. |
| 5 | <p>Monitoring channelled emissions to air to the required frequencies and standards.</p> <p>BAT is to monitor channelled emissions to air with at least the frequency given [refer to BAT5 table in BATc] and in accordance with EN standards.</p> | NA | <p>We are satisfied that BATc 5 is not applicable to this Installation.</p> <p>No processes described under BATc 5 are carried out on site and as such this BATc is not applicable.</p> |
| 6 | <p>Energy Efficiency</p> <p>In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p> | FC | <p>We consider that the operator will be future compliant with BATc 6. Improvement condition 11 has been included in the permit to achieve compliance (see Annex 3).</p> <p>The operator confirmed that they utilise a variety of energy saving techniques on site, this includes:</p> <ul style="list-style-type: none"> - Energy Efficient Motors - Heat Recovery - Lighting - Minimising Blowdown from the Boilers - Preheating Feed Water - Reducing Compressed Air Leaks - Reducing Heat Loss by Insulation - Variable Speed Drives <p>However the site does not have an energy efficiency plan (BAT 6a) in place and as such an improvement condition has been included to ensure one is developed.</p> |
| 7 | <p>Water and wastewater minimisation</p> <p>In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below. For detail of each technique, refer BAT 7 table in BATc</p> | FC | <p>We consider that the operator will be future compliant with BATc 7. Improvement condition 11 has been included in the permit to achieve compliance (see Annex 3).</p> |

| BATC No. | Summary of BAT Conclusion requirement for Food, Drink and Milk Industries | Status NA/ CC / FC / NC | Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement |
|----------|---|----------------------------|--|
| | (a) water recycling and/or reuse (b) Optimisation of water flow (c) Optimisation of water nozzles and hoses (d) Segregation of water streams Techniques related to cleaning operations: (e) Dry cleaning (f) Pigging system for pipes (g) High-pressure cleaning (h) Optimisation of chemical dosing and water use in cleaning-in-place (CIP) (i) Low-pressure foam and/or gel cleaning (j) Optimised design and construction of equipment and process areas (k) Cleaning of equipment as soon as possible | | The operator has confirmed that they use a range of techniques as described in BATc 7, this includes: (c) Optimisation of water nozzles and hoses (d) Segregation of water streams (f) Pigging system for pipes (g) High-pressure cleaning (i) Low-pressure foam and/or gel cleaning (j) Optimised design and construction of equipment and process areas (k) Cleaning of equipment as soon as possible However the site does not utilise any water recycling and/or reuse and as such an improvement condition has been included to ensure compliance with BAT. |
| 8 | Prevent or reduce the use of harmful substances In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below. (a) Proper selection of cleaning chemicals and/or disinfectants (b) Reuse of cleaning chemicals in cleaning-in-place (CIP) (c) Dry cleaning (d) Optimised design and construction of equipment and process areas for detail of each technique, refer BAT 8 table in BATc | CC | The operator has provided information to support compliance with BATc 8. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 8. The operator provided evidence to show they utilise all of the techniques described under BATc 8. |
| 9 | Refrigerants In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential. | FC | The operator has provided information to support compliance with BATc 9. We have assessed the information provided. We are not satisfied that the operator has demonstrated compliance with BATc 9 The operator stated that they have R-22 and R-404a units on site and are aware of the impact these can cause, they require a plan to ensure these and other high GWP models are |

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| | | | replaced. IC11 has been included in the permit to ensure future compliance. |
| 10 | <p>Resource efficiency In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> (a) Anaerobic digestion (b) Use of residues (c) Separation of residues (d) Recovery and reuse of residues from the pasteuriser (e) Phosphorus recovery as struvite (f) Use of waste water for land spreading | CC | <p>The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>The operator has stated that the site uses both Separation of residues and Anaerobic Digestion – which is carried out off site.</p> |
| 11 | <p>Waste water buffer storage In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.</p> | CC | <p>We are satisfied that BATc 11 is not applicable to this Installation.</p> <p>The site does not store any waste water within the permitted area, all waste water is sent directly to a sewage treatment works operated by Anglian Water. They do have contingencies in place should there be a leak in any effluent pipes to prevent uncontrolled emissions. All relevant staff are fully trained in spill control training and spill kits are located at key locations on site.</p> |
| 12 | <p>Emissions to water – treatment In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.</p> <p>Preliminary, primary and general treatment</p> <ul style="list-style-type: none"> (a) Equalisation (b) Neutralisation (c) Physical separate (eg screens, sieves, primary settlement tanks etc) <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <ul style="list-style-type: none"> (d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc) (e) Nitrification and/or denitrification | CC | <p>The operator has provided information to support compliance with BATc 12. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 12.</p> <p>The site has limited capacity to implement a variety of techniques as described in BATc 12, however they do perform physical separation (c) on site before the effluent is sent to Anglian Water treatment works for further treatment. The treatment carried out on site is deemed as</p> |

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|--------------------------------------|--|----------------------------|---|--------------------------------------|-----------------|------------------------------|---------------|---------------------|-------------------|-----------------------|----------------|----|---|
| | (f) Partial nitrification - anaerobic ammonium oxidation Phosphorus recovery and/or removal (g) Phosphorus recovery as struvite (h) Precipitation (i) Enhanced biological phosphorus removal Final solids removal (j) Coagulation and flocculation (k) Sedimentation (l) Filtration (eg sand filtration, microfiltration, ultrafiltration) (m) Flotation for detail of each technique, refer BAT 12 table 1 | | appropriate due to the restrictions on site and the further treatment by Anglian water. | | | | | | | | | | |
| 12 | <p>Emissions to water – treatment BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</p> <table border="1" data-bbox="280 842 1211 1043"> <thead> <tr> <th>Parameter</th> <th>BAT-AEL (°) (°) (daily average)</th> </tr> </thead> <tbody> <tr> <td>Chemical oxygen demand (COD) (°) (°)</td> <td>25-100 mg/l (°)</td> </tr> <tr> <td>Total suspended solids (TSS)</td> <td>4-50 mg/l (°)</td> </tr> <tr> <td>Total nitrogen (TN)</td> <td>2-20 mg/l (°) (°)</td> </tr> <tr> <td>Total phosphorus (TP)</td> <td>0,2-2 mg/l (°)</td> </tr> </tbody> </table> | Parameter | BAT-AEL (°) (°) (daily average) | Chemical oxygen demand (COD) (°) (°) | 25-100 mg/l (°) | Total suspended solids (TSS) | 4-50 mg/l (°) | Total nitrogen (TN) | 2-20 mg/l (°) (°) | Total phosphorus (TP) | 0,2-2 mg/l (°) | NA | <p>We are satisfied that BATc 12 – AELs are not applicable to this Installation.</p> <p>The site has no direct discharges of process effluent to water, all process effluent is sent to the local Anglian Water Sewage Treatment Works.</p> |
| Parameter | BAT-AEL (°) (°) (daily average) | | | | | | | | | | | | |
| Chemical oxygen demand (COD) (°) (°) | 25-100 mg/l (°) | | | | | | | | | | | | |
| Total suspended solids (TSS) | 4-50 mg/l (°) | | | | | | | | | | | | |
| Total nitrogen (TN) | 2-20 mg/l (°) (°) | | | | | | | | | | | | |
| Total phosphorus (TP) | 0,2-2 mg/l (°) | | | | | | | | | | | | |
| 13 | <p>Noise management plan</p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting noise emissions monitoring; - a protocol for response to identified noise events, eg complaints; - a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures. | NA | <p>We are satisfied that BATc 13 is not applicable to this Installation.</p> <p>The site has had no reports of noise nuisances and as such BATc 13 is not applicable.</p> | | | | | | | | | | |

| BATC No. | Summary of BAT Conclusion requirement for Food, Drink and Milk Industries | Status NA/ CC / FC / NC | Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement |
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| 14 | <p>Noise management</p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to use one or a combination of the techniques given below.</p> <p>(a) Appropriate location of equipment and buildings (b) Operational measures (c) Low-noise equipment (d) Noise control equipment (e) Noise abatement</p> <p>for detail of each technique, refer BAT 14 table in BATCs</p> | CC | <p>The operator has provided information to support compliance with BATc 14. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 14.</p> <p>The operator confirmed that the site utilises techniques as described under BATc 14, this includes:</p> <ul style="list-style-type: none"> - Operational measures, such as: Keeping doors closed at all times, limited operating hours and staff fully trained in equipment use. - Low noise equipment is in place on site |
| 15 | <p>Odour Management</p> <p>In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting odour monitoring. - a protocol for response to identified odour incidents eg complaints; - an odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure: to characterise the contributions of the sources; and to implement prevention and/or reduction measures. | NA | <p>We are satisfied that BATc 15 is not applicable to this Installation.</p> <p>There have been no odour nuisances received at the site and as such BATc 15 does not apply.</p> |
| VEGETABLE PROCESSING CONCLUSIONS (BAT 27) | | | |
| 27 | Energy efficiency – Fruit and vegetables sector | NA | We are satisfied that BATc 27 is not applicable to this Installation. |

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|--|---|--|---|--|---|-----------------------|-------------|-------------------|------------------|--|---|
| | <p>In order to increase energy efficiency, BAT is to use an appropriate combination of the techniques specified in BAT 6 and to cool fruit and vegetables before deep freezing.</p> <p>The temperature of the fruit and vegetables is lowered to around 4 °C before they enter the freezing tunnel by bringing them into direct or indirect contact with cold water or cooling air. Water can be removed from the food and then collected for reuse in the cooling process.</p> | | <p>The site does not cool or deep freeze any of their products on site and as such BATc 27 is not applicable.</p> | | | | | | | | |
| Vegetable Processing Environmental Performance Levels | | | | | | | | | | | |
| EPL | <p>Environmental Performance Level – Energy consumption for the vegetable processing sector</p> <p style="text-align: center;">Table 12</p> <p style="text-align: center;">Indicative environmental performance levels for specific energy consumption</p> <table border="1" data-bbox="277 770 1211 935"> <thead> <tr> <th>Specific process</th> <th>Unit</th> <th>Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td>Potato processing (excluding starch production)</td> <td rowspan="2">MWh/tonne of products</td> <td>1,0-2,1 (1)</td> </tr> <tr> <td>Tomato processing</td> <td>0,15-2,4 (1) (2)</td> </tr> </tbody> </table> <p>(1) The specific energy consumption level may not apply to the production of potato flakes and powder. (2) The lower end of the range is typically associated with the production of peeled tomatoes. (3) The upper end of the range is typically associated with the production of tomato powder or concentrate.</p> | Specific process | Unit | Specific energy consumption (yearly average) | Potato processing (excluding starch production) | MWh/tonne of products | 1,0-2,1 (1) | Tomato processing | 0,15-2,4 (1) (2) | <p style="text-align: center;">NA</p> | <p>The operator has confirmed that none of the specific processes described in the BAT-EPL are performed on site.</p> <p>Although an EPL does not apply, we have to ensure that the operator is demonstrating achieving an appropriate site specific benchmark and is energy efficient.</p> <p>The operator has stated that they can achieve a EPL of 0.0533 MWh/t.</p> |
| Specific process | Unit | Specific energy consumption (yearly average) | | | | | | | | | |
| Potato processing (excluding starch production) | MWh/tonne of products | 1,0-2,1 (1) | | | | | | | | | |
| Tomato processing | | 0,15-2,4 (1) (2) | | | | | | | | | |
| EPL | <p>Environmental Performance Level – Specific waste water discharge for the Vegetable Processing sector</p> | <p style="text-align: center;">NA</p> | <p>The operator has confirmed that none of the specific processes described in the BAT-EPL are performed on site.</p> | | | | | | | | |

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|--|---|---|---|---|---|-----------------------------------|------------------------------------|--|---|--|--|
| | <p style="text-align: center;">Table 13</p> <p style="text-align: center;">Indicative environmental performance levels for specific waste water discharge</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Specific process</th> <th style="width: 20%;">Unit</th> <th style="width: 50%;">Specific waste water discharge (yearly average)</th> </tr> </thead> <tbody> <tr> <td>Potato processing (excluding starch production)</td> <td rowspan="2" style="text-align: center;">m³/tonne of products</td> <td style="text-align: center;">4,0-6,0 ⁽¹⁾</td> </tr> <tr> <td>Tomato processing when water recycling is possible</td> <td style="text-align: center;">8,0-10,0 ⁽¹⁾</td> </tr> </tbody> </table> <p>⁽¹⁾ The specific waste water discharge level may not apply to the production of potato flakes and powder. ⁽²⁾ The specific waste water discharge level may not apply to the production of tomato powder.</p> | Specific process | Unit | Specific waste water discharge (yearly average) | Potato processing (excluding starch production) | m ³ /tonne of products | 4,0-6,0 ⁽¹⁾ | Tomato processing when water recycling is possible | 8,0-10,0 ⁽¹⁾ | | <p>Although an EPL does not apply, we have to ensure that the operator is demonstrating achieving an appropriate site specific benchmark and is energy efficient.</p> <p>With the exception of water recycling, water efficiency techniques are deemed to be BAT for this site, as per BATc 7.</p> <p>The operator has stated that they can achieve a EPL of 4.4169 MWh/t.</p> |
| Specific process | Unit | Specific waste water discharge (yearly average) | | | | | | | | | |
| Potato processing (excluding starch production) | m ³ /tonne of products | 4,0-6,0 ⁽¹⁾ | | | | | | | | | |
| Tomato processing when water recycling is possible | | 8,0-10,0 ⁽¹⁾ | | | | | | | | | |
| | MEAT PROCESSING CONCLUSIONS (BAT 29) | | | | | | | | | | |
| 29 | <p>In order to reduce channelled emissions of organic compounds to air from meat smoking, BAT is to use one or a combination of the techniques given below.</p> <p>(a) Adsorption (b) Thermal oxidation (c) Wet scrubber (d) Use of purified smoke</p> <p style="text-align: center;">Table 13</p> <p style="text-align: center;">BAT-associated emission level (BAT-AEL) for channelled TVOC emissions to air from a smoke chamber</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Parameter</th> <th style="width: 20%;">Unit</th> <th style="width: 50%;">BAT-AEL (average over the sampling period)</th> </tr> </thead> <tbody> <tr> <td>TVOC</td> <td style="text-align: center;">mg/Nm³</td> <td style="text-align: center;">3-50 ⁽¹⁾ ⁽²⁾</td> </tr> </tbody> </table> <p>⁽¹⁾ The lower end of the range is typically achieved when using adsorption or thermal oxidation. ⁽²⁾ The BAT-AEL does not apply when the TVOC emission load is below 500 g/h.</p> | Parameter | Unit | BAT-AEL (average over the sampling period) | TVOC | mg/Nm ³ | 3-50 ⁽¹⁾ ⁽²⁾ | NA | <p>We are satisfied that BATc 27 is not applicable to this Installation.</p> <p>The operator has confirmed that they do not smoke any meat on site and as such this BATc is not applicable.</p> | | |
| Parameter | Unit | BAT-AEL (average over the sampling period) | | | | | | | | | |
| TVOC | mg/Nm ³ | 3-50 ⁽¹⁾ ⁽²⁾ | | | | | | | | | |
| | Meat Processing Environmental Performance Levels | | | | | | | | | | |
| EPL | Environmental Performance Level – Energy consumption for the Meat Processing sector | NA | The operator has confirmed that none of the specific processes described in the BAT-EPL | | | | | | | | |

| BATC No. | Summary of BAT Conclusion requirement for Food, Drink and Milk Industries | Status NA/ CC / FC / NC | Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement | | | | |
|--|---|----------------------------|---|--|--|-----------|--|
| | <p style="text-align: center;">Table 16</p> <p style="text-align: center;">Indicative environmental performance level for specific energy consumption</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Unit</th> <th style="width: 50%;">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td>MWh/tonne of raw materials</td> <td style="text-align: center;">0,25-2,6 ⁽ⁱ⁾ ^(j)</td> </tr> </tbody> </table> <p>⁽ⁱ⁾ The specific energy consumption level does not apply to the production of ready meals and soups. ^(j) The upper end of the range may not apply in the case of a high percentage of cooked products.</p> | Unit | Specific energy consumption (yearly average) | MWh/tonne of raw materials | 0,25-2,6 ⁽ⁱ⁾ ^(j) | | <p>are performed on site. As the site uses meat only for the production of ready meals.</p> <p>Although an EPL does not apply, we have to ensure that the operator is demonstrating achieving an appropriate site specific benchmark and is energy efficient.</p> <p>The operator has stated that they can achieve a EPL of 0.0533 MWh/t.</p> |
| Unit | Specific energy consumption (yearly average) | | | | | | |
| MWh/tonne of raw materials | 0,25-2,6 ⁽ⁱ⁾ ^(j) | | | | | | |
| EPL | <p style="text-align: center;">Table 17</p> <p style="text-align: center;">Environmental Performance Level – Specific waste water discharge for the Meat Processing sector</p> <p style="text-align: center;">Indicative environmental performance level for specific waste water discharge</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Unit</th> <th style="width: 50%;">Specific waste water discharge(yearly average)</th> </tr> </thead> <tbody> <tr> <td>m³/tonne of raw materials</td> <td style="text-align: center;">1,5-3,0 ⁽ⁱ⁾</td> </tr> </tbody> </table> <p>⁽ⁱ⁾ The specific waste water discharge level does not apply to processes using direct water cooling and to the production of ready meals and soups.</p> | Unit | Specific waste water discharge(yearly average) | m ³ /tonne of raw materials | 1,5-3,0 ⁽ⁱ⁾ | NA | <p>The operator has confirmed that none of the specific processes described in the BAT-EPL are performed on site. As the site uses meat only for the production of ready meals.</p> <p>Although an EPL does not apply, we have to ensure that the operator is demonstrating achieving an appropriate site specific benchmark and is energy efficient.</p> <p>With the exception of water recycling, water efficiency techniques are deemed to be BAT for this site, as per BATc 7.</p> <p>The operator has stated that they can achieve a EPL of 4.4169 MWh/t.</p> |
| Unit | Specific waste water discharge(yearly average) | | | | | | |
| m ³ /tonne of raw materials | 1,5-3,0 ⁽ⁱ⁾ | | | | | | |

Annex 2: Review and assessment of changes that are not part of the BAT Conclusions derived permit review

Updating permit during permit review consolidation

- Activity name
- Introductory note
- Site plan
- Table S1.1 overhaul
 - Activity Reference (AR) renumbering
 - Updated listed activities
 - Addition of production capacity
 - Directly associated activities (DAAs) standardisation

We have updated permit conditions to those in the current generic permit template as a part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit.

Production Capacity Threshold

The Environment Agency is looking to draw a “line in the sand” for permitted production capacity; a common understanding between the Operator and regulator for the emissions associated with a (maximum) level of production, whereby the maximum emissions have been demonstrated as causing no significant environmental impact.

We have included a permitted production level (capacity) within table S1.1 of the permit for the section 6.8 listed activity and we need to be confident that the level of emissions associated with this production level have been demonstrated to be acceptable.

The maximum production capacity for the site has increased however as there are no particulate emissions or direct emission to water a new H1 assessment is not required. The consent to discharge with Anglian water is up to date and is not impacted by this increase.

Emissions to Air

We asked the operator to list all emission points to air from the installation in the Regulation 61 notice. And to provide a site plan indicating the locations of all air emission points.

The operator has provided an up to date air emission plan.

Implementing the requirements of the Medium Combustion Plant Directive

Existing Medium Combustion Plant (1MW-50MW)

We asked the Operator to provide information on all combustion plant on site in the Regulation 61 Notice as follows:

- Number of combustion plant (CHP engines, back-up generators, boilers);

- Size of combustion plant – rated thermal input (MWth)
- Date each combustion plant came into operation

The Operator provided the information in the table(s) below:

Combined heat and power (CHP) engines

| | |
|---|----------------------------|
| 1. Rated thermal input (MW) of the medium combustion plant. | CHP (CM132A-14) – 3.3 MWth |
| 2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant). | CHP |
| 3. Type and share of fuels used according to the fuel categories laid down in Annex II. | Natural Gas – 100% |
| 4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018. | April 2014 |

Boilers

| | | | |
|---|---------------------|---------------------|---------------------|
| 1. Rated thermal input (MW) of the medium combustion plant. | Boiler 1 – 8.9 MWth | Boiler 2 – 8.9 MWth | Boiler 3 – 8.9 MWth |
| 2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant). | Boiler | Boiler | Boiler |
| 3. Type and share of fuels used according to the fuel categories laid down in Annex II. | Natural Gas – 100% | Natural Gas – 100% | Natural Gas – 100% |
| 4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018. | April 2014 | April 2014 | April 2014 |

We have reviewed the information provided and we consider that the declared combustion plant qualify as “existing” medium combustion plant.

For existing medium combustion plant with a rated thermal input greater than 5 MW (Boiler 1 [A1], Boiler 2 [A1] and Boiler 3 [A1]), the emission limit values set out in tables 2 and 3 of Part 1 of Annex II MCPD shall apply from 1 January 2025.

For existing MCP with a rated thermal input of less than or equal to 5 MW (CHP [A1]), the emission limit values set out in tables 1 and 3 of Part 1 of Annex II MCPD shall apply from 1 January 2030.

We have included the appropriate emission limit values for existing medium combustion plant as part of this permit review. See Table S3.1 in the permit. We have also included a new condition 3.1.4 within the permit which specifies the monitoring requirements for the combustion plant in accordance with the MCPD.

Emissions to Water and implementing the requirements of the Water Framework Directive

We asked the Operator to provide information on all emissions to water at the installation in the Regulation 61 Notice as follows;

- Identify any effluents which discharge directly to surface or groundwater;
- Provide an assessment of volume and quality, including results of any monitoring data available;
- and for any discharges to water / soakaway whether a recent assessment of the feasibility of connection to sewer has been carried out.

The operator has previously provided assessments for all emissions to water at the installation. The operator declares there has been no change to activities and subsequent effluents generated at the installation since this risk assessment was taken. Consequently, we agree that the original risk assessments remain valid at this time.

Soil & groundwater risk assessment (baseline report)

The IED requires that the operator of any IED installation using, producing or releasing “relevant hazardous substances” (RHS) shall, having regarded the possibility that they might cause pollution of soil and groundwater, submit a “baseline report” with its permit application. The baseline report is an important reference document in the assessment of contamination that might arise during the operational lifetime of the regulated facility and at cessation of activities. It must enable a quantified comparison to be made between the baseline and the state of the site at surrender.

At the definitive cessation of activities, the Operator has to satisfy us that the necessary measures have been taken so that the site ceases to pose a risk to soil or groundwater, taking into account both the baseline conditions and the site’s current or approved future use. To do this, the Operator has to submit a surrender application to us, which we will not grant unless and until we are satisfied that these requirements have been met.

The previous Operator submitted a site condition report [‘Premier Foods: IPPC Application, Wisbech Site: Section 1.3, Site Condition Report, March 2005] during the original application received in March 2005. The site condition report included a report on the baseline conditions as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time.

Hazardous Substances

Hazardous substances are those defined in Article 3 of Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures

The operator has confirmed there has been no change in the hazardous substances used, their capability of causing pollution and/or the pollution prevention measures at the installation since the risk assessment was submitted in March 2005. Consequently, we are satisfied there has been no change to the assessment of risk for hazardous substances.

Climate Change Adaptation

The operator has considered if the site is at risk of impacts from adverse weather (flooding, unavailability of land for land spreading, prolonged dry weather / drought) .

The operator has identified the installation as likely to be or has been affected by flooding, prolonged dry weather and drought, which we consider to be a severe weather event.

We do not consider the operator to have submitted a suitable climate change adaptation plan for the installation. We have included an improvement condition into the permit (IC12) to request a climate change adaptation plan is submitted by the operator for approval from the Environment Agency.

Containment

We asked the Operator via the Regulation 61 Notice to provide details of the each above ground tanks which contain potentially polluting liquids at the site, including tanks associated with the effluent treatment process where applicable.

The Operator provided details of all tanks;

- Tank reference/name
- Contents
- Capacity (litres)
- Location
- Construction material(s) of each tank
- The bunding specification including
 - Whether the tank is bunded
 - If the bund is shared with other tanks
 - The capacity of the bund
 - The bund capacity as % of tank capacity
 - Construction material of the bund
 - Whether the bund has a drain point
 - Whether any pipes penetrate the bund wall
- Details of overfill prevention
- Drainage arrangements outside of bunded areas
- Tank filling/emptying mitigation measures (drips/splashes)
- Leak detection measures
- Details of when last bund integrity test was carried out
- Maintenance measures in place for tank and bund (inspections)
- How the bund is emptied
- Details of tertiary containment

and whether the onsite tanks currently meet the relevant standard in the Ciria “Containment systems for the prevention of pollution (C736)” report.

We reviewed the information provided by the operator and their findings. We are not satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

We have set improvement conditions in the permit to address the deficiencies in the existing tanks and containment measures on site (IC13). See Improvement condition(s) in Annex 3 of this decision document.

Annex 3: Improvement Conditions

Based on the information in the Operator's Regulation 61 Notice response and our own records of the capability and performance of the installation at this site, we consider that we need to set improvement conditions so that the outcome of the techniques detailed in the BAT Conclusions are achieved by the installation. These improvement conditions are set out below - justifications for them is provided at the relevant section of the decision document (Annex 1 or Annex 2).

Previous improvement conditions marked as complete in the previous permit.

| Superseded Improvement Conditions – Removed from permit as marked as “complete” | |
|--|--|
| Reference | Improvement Condition |
| IC1 | The Operator shall submit a report detailing their proposals for the changes needed to ensure that emissions from the site boilers, release points A1 – A7, comply with the limits specified in column 4 of Table 2.2.2 of this permit. The report shall include the following; fuel types, performance specification including emission levels, a justification that they represent BAT and a schedule of works. |
| IC2 | With reference to IC1 the Operator shall carry out a detailed assessment against UK air quality regulation objectives for sulphur dioxide, oxides of nitrogen and particulate matter (PM ₁₀) emissions from the installation for the proposal detailed in IC1. A written report shall be submitted to the Agency presenting the results of the assessment, including detailed modelling concentration plots, and conclusions drawn about the impact of emissions from the installation on the environmental benchmarks." |
| IC3 | With reference to IC2 the Operator shall submit to the Environment agency a written report reviewing the height of boiler stacks, A1 – A7 to ensure adequate dispersion of pollutants and compliance with the air quality standards. |
| IC4 | The Operator shall develop and implement an appropriate emissions monitoring programme for point source releases A1-A7 to air, with the purpose of monitoring these releases, having regard for the Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003. The programme and monitoring methods shall be agreed in writing with the Agency prior to implementation. |
| IC5 | The Operator shall review the secondary containment measures provided for the potentially polluting substances that are stored or held on site. The review shall ensure that all storage tanks, drums and containers within the installation are sited on an impermeable base and within sufficient bunding, as detailed in the Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003. The Operator shall provide the Agency with a written copy of the review, which shall include proposals for improvements with a timescale for implementation, which shall be adhered to unless otherwise agreed in writing by the Agency. |
| IC6 | The Operator shall develop and implement a Noise Management Plan, which shall be agreed in writing with the Agency, having regard for the Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003 and Horizontal Guidance IPPC H3, Parts 1 and 2, Version 2, September 2002. |
| IC7 | The Operator shall implement a formal, documented procedure for the inspection and subsequent maintenance of the Installation's underground pipes, sumps and drainage systems, having regard for Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003. A written copy of the procedure shall be submitted to the Agency. A written report summarising the findings of the first planned inspection shall be submitted to the Agency, which shall include proposals for improvements with a timescale for |

| | |
|------|--|
| | implementation which shall be adhered to unless otherwise agreed in writing by the Agency. |
| IC8 | The Operator shall carry out an assessment of the options available for the protection of surface water and groundwater from fugitive emissions and/or contamination from the Installation, having regard for Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003. A written report summarising the options identified shall be submitted to the Agency to include proposals for improvements with a timescale for implementation which shall be adhered to unless otherwise agreed in writing by the Agency. |
| IC9 | The Operator shall develop a written Site Closure Plan having regard for Agency Sector Guidance Note IPPC S6.10, Issue 1, September 2003 and shall submit a copy to the Agency for agreement. |
| IC10 | The Operator shall review the provision of MCERTS certification (or where this is not applicable, UKAS accreditation) for the organisations or methods employed to sample and analyse samples taken to fulfil the conditions of this permit. A report shall be submitted that details a timetable for achieving this standard for all parameters identified by the review, as not meeting the required certification/ accreditation. |

The following improvement conditions have added to the permit as a result of the variation.

| Improvement programme requirements | | |
|---|--|----------------------------------|
| Reference | Reason for inclusion | Justification of deadline |
| IC11 | <p>The Operator shall confirm in writing to the Environment Agency that the Narrative BAT requirements for the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 6(a), 7(a) and 9 were in place on or before 4 December 2023. Refer to BAT Conclusions for a full description of the BAT requirement.</p> <p>To demonstrate compliance against BAT 6(a), the operator shall develop an energy efficiency plan as part of the environmental management system.</p> <p>To demonstrate compliance against BAT 7(a), the operator shall investigate recycling and/or reuse of water streams, e.g. for cleaning, washing, cooling or for the process itself.</p> <p>To demonstrate compliance against BAT 9, the operator shall develop a replacement plan for the refrigerant system(s) at the installation. This shall be incorporated within the existing environmental management system by the specified date.</p> <p>The plan should include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Where practicable, retro filling systems containing high GWP refrigerants e.g. R-404A with lower GWP alternatives as soon as possible. • An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest practicable GWP. | 2 months from permit issue |

| | | |
|------|--|-----------------------------|
| | <ul style="list-style-type: none"> • Replacement of systems containing HCFCs as soon as possible. | |
| IC12 | <p>The operator shall produce a climate change adaptation plan, which will form part of the EMS.</p> <p>The plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> • Details of how the installation has or could be affected by severe weather; • The scale of the impact of severe weather on the operations within the installation; • An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation. <p>The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.</p> | 12 months from permit issue |
| IC13 | <p>The Operator shall undertake a survey of the primary, secondary and tertiary containment at the site and review measures against relevant standard including:</p> <ul style="list-style-type: none"> • CIRIA Containment systems for the prevention of pollution (C736) – Secondary, tertiary and other measures for industrial and commercial premises, • EEMUA 159 - Above ground flat bottomed storage tanks <p>The operator shall submit a written report to the Environment Agency approval which outlines the results of the survey and the review of standard and provide details of</p> <ul style="list-style-type: none"> • current containment measures • any deficiencies identified in comparison to relevant standards, • improvements proposed • time scale for implementation of improvements. <p>The operator shall implement the proposed improvements in line with the timescales agreed by the Environment Agency.</p> | 12 months from permit issue |