# 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/BS3140IS

The Operator is: Kellogg Company of Great Britain Limited

The Installation is: Manchester cereals and biscuits

This Variation Notice number is: EPR/BS3140IS/V006

**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 04/10/2022 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 04/02/2023.

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

Based on our records and previous experience in the regulation of the installation we have no reason to consider that the Operator will not be able to comply with the techniques and standards described in the BAT Conclusions.

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 08/02/2024. 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 25 & 26  | BAT Conclusions for Ethanol Production 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 33BAT 34  | BAT Conclusions for Soft Drinks and Nectar/Fruit Juice Processed from Fruit and Vegetables 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 | **Environmental Management System - Improve overall environmental performance.** Implement an EMS that incorporates all the features as described within BATc 1.  | **CC** | 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.The operator has a vigorous EMS which covers all the topics set out in BATc 1. this is not accredited to ISO 14001 however upon review it is evident that the EMS is written to ISO 14001 standards.  |
| 2 | **EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions.**

|  |
| --- |
| 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. |

 | **CC** | 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.The operator declared:* Water usage and waste, energy usage and waste, raw material consumption, waste and waste gas streams generation are monitored in accordance with BAT. These monitoring values are evaluated in weekly reports and compared against weekly and annual targets. Raw material use is monitored daily.
* A process flow diagram has been created showing the origin of emissions to its discharge points. This process flow incorporates techniques such as fabric filters, an electrostatic precipitator and cartridge filter to reduce air emissions.

The operator has an EMS which covers all the topics set out in BATc 2. The EMS is not accredited to ISO 14001 however, upon review we agree that the EMS is written to ISO 14001 standards. |
| 3 | **Monitoring key process parameters at key locations for emissions to water.** 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). | **CC** | 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.The operator monitored all waste water for pH, temperature and flow at the in-let of pre-treatment and at the point where the emission leaves the installation. Chemical oxygen demand (COD) and suspended solids are also monitored in the Effluent Treatment Plant (ETP) to ensure plant performance. |
| 4 | **Monitoring emissions to water to the required frequencies and standards.**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 not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.  | **NA** | We are satisfied that BATc 4 is not applicable to this Installation.This BATc is concerned with discharges of process effluent to controlled waters and this installation does not have such discharges. All treated waste water is discharged directly to sewer under consent of United Utilities. As such, BATc 4 is not applicable. |
| 5 | **Monitoring channelled emissions to air to the required frequencies and standards.**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. | **NA** | We are satisfied that BATc 5 is not applicable to this Installation.This BATc is concerned with channelled dust emissions to air from processes such as grinding, cooling, or drying. This installation does not have any of this processes therefore, BATc 5 is not applicable.  |
| 6 | **Energy Efficiency** 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. | **CC** | The operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 6.The operator has an energy efficiency plan in place which sets out targets for reduction of gas and power consumption. The operator uses a variety of techniques as discussed in BATc 6, this includes:* Burner regulation and control
* Energy efficient motors
* Variable speed drivers
* Energy efficient lighting
* Condensate recovery
* Reducing compressed air system leaks
* Heat recovery techniques.
 |
| 7 | **Water and wastewater minimisation**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](a) water recycling and/or reuse(b) Optimisation of water flow(c) Optimisation of water nozzles and hoses(d) Segregation of water streamsTechniques 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 | **CC** | The operator has provided information to support compliance with BATc 7. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 7.The operator utilizes reverse osmosis to recycle water on-site, it can provide 250 m3 of recycled water a day. 74,612 m3 or recycled water was recorder in the year 2023.The operator uses a variety of techniques as discussed in BATc 7, this includes:(e) Dry cleaning(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 |
| 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 uses a variety of techniques as discussed in BATc 8, this includes:(a) Proper selection of cleaning chemicals and/or disinfectants(c) Dry cleaning |
| 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. | **CC** | The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 9.The operator provided details of all the refrigerants used on site and their plan on how to manage these and replace them when necessary. All replacement refrigerants are selected on their global warming potential (GWP) and the lower options selected. Redundant high GWP models have been replaced and all refrigerants are reviewed annually.  |
| 10 | **Resource efficiency**In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:(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** | 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.The operator has confirmed that they use a range of techniques to increase resource efficiency, this includes:* Sending food waste for animal feed
* Sending food waste which is unsuitable for animal feed to off-site anaerobic digestion (AD)
* Food waster which enters the wastewater stream is captured by screens to be sent to off-site AD
* Sludge is produced in the on-site ETP and is sent for land spreading
 |
| 11 | **Waste water buffer storage**In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water. | **CC** | The operator has provided information to support compliance with BATc 11. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 11.The installation has sufficient waste water buffer storage tanks on-site which consists of two 650m3 and one 1200m3 storage tanks.Furthermore the site operates pen-stock valves and has spill kits in major locations across the site.  |
| 12 | **Emissions to water – treatment**In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below. Preliminary, primary and general treatment(a) Equalisation(b) Neutralisation(c) Physical separate (eg screens, sieves, primary settlement tanks etc) Aerobic and/or anaerobic treatment (secondary treatment)(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)(e) Nitification and/or denitrification(f) Partial nitration - anaerobic ammonium oxidationPhosphorus recovery and/or removal(g) Phosphorus recovery as struvite(h) Precipitation(i) Enhanced biological phosphorus removalFinal solids removal(j) Coagulation and flocculation(k) Sedimentation(l) Filtration (eg sand filtration, microfiltration, ultrafiltration)(m) Flotation | **CC** | 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.The on-site ETP processes all effluent through primary and secondary treatments. Firstly the solids are collected from the main drains via screens, and sent for AD (physical separation). The effluent then passes through a Dissolved Air Flotation (DAF) plant before being passed through a Membrane Bio-Reactor (MBR) where the effluent undergoes a biological treatment before ultrafiltration via the membrane system. All effluent is then discharge to sewer under consent from United Utilities for further treatment, |
| 12 | **Emissions to water – treatment****BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body** | **NA** | We are satisfied that BATc 12-AELs are not applicable to this Installation.This BATc in concerned with direct discharges to water. All treated waste water is discharged directly to sewer under consent of United Utilities. As such, BATc 12-AELs is not applicable to this installation.  |
| 13 | **Noise management plan**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:- a protocol containing actions and timelines;- a protocol for conducting noise emissions monitoring;- a protocol for response to identified noise events, e.g. 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** | We are satisfied that BATc 13 is not applicable to this Installation.The site had previously received several noise complaints however these have now subsided since the installation of various noise abatement technologies, as detailed under BATc 14. The site enforcement officer has confirmed that all issues have been addressed by the operator and as such, confirms that no noise management plan is necessary.  |
| 14 | **Noise management**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.(a) Appropriate location of equipment and buildings(b) Operational measures(c) Low-noise equipment(d) Noise control equipment(e) Noise abatement | **CC** | 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.The site implements operation measures to reduce noise emission, such as restricted delivery times and areas and keeping doors closed to operation areas.The site has installed the following noise control equipment:* Installation of silencers on oven fans No2 & No4
* Acoustic shields for vents and outlets on the compressor house at the Effluent Treatment Plant
* Damping and acoustic shields for roof compressor 03171
* The new burners (installed in 2023) have air inlet silencers fitted as well as acoustic foam lining to limit the operating noise level to 80 dB(A) at 1 metre at the Master control room.

Furthermore, work has been done on site to mitigate noise pollution such as regular maintenance.  |
| 15 | **Odour Management**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:- 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** | We are satisfied that BATc 15 is not applicable to this Installation.The site has not received any odour complaints and as such does not require an odour management plan. The site does operate odour abatement, scrubbers, and is in the process of developing an odour procedure to conduct monitoring on-site.  |

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

**Updating permit during permit review consolidation**

* 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 existing H1 assessment of particulate emissions to air remains valid for the revised capacity threshold now placed within table S1.1 of the permit.

**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:

Boilers

|  |  |  |
| --- | --- | --- |
| 1. Rated thermal input (MW) of the medium combustion plant. | Boiler 1 – 11 MWth | Boiler 2 – 11 MWth |
| 2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant). | Boiler | Boiler |
| 3. Type and share of fuels used according to the fuel categories laid down in Annex II. | Natural Gas | Natural Gas |
| 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. | January 1973 | January 1973 |

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

We have retained the previous emission limits values and monitoring requirements for boilers 1 and 2 as per variation (V005), however the monitoring frequency has been lowered to every three years – the original yearly monitoring was in place when the combustion plants aggregated to greater than 50 MWth and as such yearly monitoring was required this is no longer the case.

It brings the monitoring in line with the medium combustion plant directive in addition to the inclusion of Carbon monoxide monitoring.

As the site processes the grain and cereals, dust emissions are produced. There is no monitoring in place for this as it is not required under the BAT conclusions. However IC9 has been included to produce a rolling monitoring program regarding dust emissions from process emission points. Should it be determined that emissions are frequent and of a significant effect then monitoring shall be put in place.

**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 requiresthat 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 Operator submitted a site condition report (Baseline Site Condition Report, Manchester Cereals and Biscuits) during the original application received in November 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.

The Operator submitted a summary report which referenced the site condition report and baseline report. We have reviewed the information and we consider that it adequately describes the current condition of the soil and groundwater. Consequently, we are satisfied that the baseline conditions have not changed.

**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 provided a short risk assessment on the hazardous substances stored and used at the installation. The risk assessment was a stage 1-3 assessment as detailed within EC Commission Guidance 2014/C 136/03.

The stage 1 assessment identified the hazardous substances used / stored on site.

The stage 2 assessment identified if hazardous substances are capable of causing pollution. If they are capable of causing pollution they are then termed Relevant Hazardous Substances (RHS). The Stage 3 assessment identified if pollution prevention measures are fit for purpose in areas where hazardous substances are used / stored. This includes drains as well.

The outcomes of the three stage assessment identified that pollution of soil and/or ground water to be unlikely.

**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 unavailability of land for land spreading of waste and prolonged dry weather or 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 (IC10) to request a climate change adaptation plan is submitted by the operator for approval from the Environment Agency.

**Containment**

We asked the Operator vis 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 appliable.

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. We are satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

**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 develop a Site Closure Plan having regard to the requirements set out in Section 2.11 of Agency Guidance Note IPPC S6.10. On completion of the plan, a summary of the document shall be summitted to the Agency in writing.  |
| IC2 | Following the commissioning of the Combined Heat and Power (CHP) Plant, the Operator shall submit to the Agency a report detailing the outcome of the commissioning program. The report shall also include tie following: * verification the emissions oxides of nitrogen from emission point A3 during start-up, normal operation and shut-down; and
* an assessment of the impact of noise associated with the operation of the Combined Heat and Plant on local receptors during both daytime and night-time periods;
* confirmation of the post commissioning program to ensure that combustion efficiency is optimized; and
* a timetable for the decommissioning of Boilers 6 and 7.
 |
| IC3 | The Operator shall, having regard to section 2.1.11 of Agency Guidance Note IPPC S6.10, undertake a review the cleaning techniques employed, inducing, but not limited to, the following: * opportunities for water minimization;
* cleaning agent selection; and
* The feasibility of using instrumental techniques to improve cleaning efficiency.

A summary of the review shall be submitted in writing to the Agency together with a timetable for the implementation of any improvements identified. |
| IC4 | The Operator shall, having regard to section 2.2.2 of Agency Guidance Note IPPC S6.10, submit to the Agency a report that characterises wastewater quality and details process control targets for key treatment stages within the on-site treatment plant. The report shall also assess the feasibility of re-using or recycling the treated wastewater and include a timetable for the any improvements identified.  |
| IC5 | The Operator shall carry out an inspection of the integrity the drainage system using Closed Circuit Television (CCTV) techniques. The outcome of the inspection, including a timetable for the implementation of any improvements identified shall be reported in writing to the Agency.  |
| IC6 | The Operator shall, having regard to section 2.2.5 of Agency Guidance Note IPPC S6.10, review the measures in place to prevent fugitive losses associated with the storage of raw materials and waste oil. The review shall consider, but not be limited to, the following: * Bund specification and capacity;
* Polymer storage at the ETP; and
* Waste oil handling and storage.

A summary of the review including a timetable for the implementation of any improvements shall be submitted in writing to the Agency.  |
| IC7 | The operator shall carry out air emissions monitoring of particulate matter on the inlet/outlet and PM10 on the outlet of representative abatement systems in accordance with Monitoring Standards BS EN 13284-1 and BS ISO 10155 respectively (unless otherwise agreed in writing with the Agency)Representative samples shall be assessed in relation to the following abatement systems:* Cyclones (A4 to A14) – minimum three samples;
* Fabric filters (A15 to A17, A19 to A22, A24 & A25) – minimum three samples;
* Wet de-dusters (A26 to A36) – minimum three samples; and
* Fabric filters (A37, A39 & A41).

On completion of the monitoring, the operator shall carry out an impact assessment of the emission. A summary of the monitoring results and impact assessment shall be submitted to the Agency.  |
| IC8 | The operator shall undertake a review of the monitoring systems, alarms and procedures in place for the detection of any abnormal operation of the abatement systems associated with release points A15 to A25 and A37 to A48. A report summarising the review and including details of any improvements identified shall be submitted in writing to the Agency along with a timetable for their implementation.  |

| Improvement programme requirements |
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| Reference | Reason for inclusion | Justification of deadline |
| IC9 | The operator shall submit, for approval by the Environment Agency, a monitoring procedure for particulate matter emissions from principal emission points on site. The procedure must describe how the operator will implement a rolling monitoring programme which shall include, but not be limited to the following: 1. Methodology for how representative monitoring will be carried out annually, with a minimum of 3-point sources on a rolling-basis.
2. Ensuring the key process stages are prioritised.
3. Identify any principal emission points excluded from the rolling monitoring programme and provide a justification for this.
4. Provide a commencement date for the programme which will demonstrate compliance with the permit requirements.

The monitoring procedure shall address the requirements of BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 5. | 12 months from permit issue or as agreed in writing by the Environment Agency |
| IC10 | The operator shall produce a climate change adaptation plan, which will form part of the EMS.The plan shall include, but not be limited to:• 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.The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.  | 6 months from permit issue or as agreed in writing by the Environment Agency |

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