

Permitting Decisions- Variation

We have decided to grant the variation for Whittlesey Foods Factory operated by McCain Foods (G.B.) Limited.

The variation number is EPR/BO7724IV/V007.

The permit was issued on 27/08/2025.

The variation is for:

- The addition of a 7.6MWth natural gas fired boiler plant and two natural gas fired 2.64MWth fryer condensers.
- The addition of the 7.6MWth boiler brings the total thermal input to the site above 50MWth, a S1.1 activity will be included in the permit.
- An increase in production capacity of 45 tonnes per day.
- New and repurposed containment tanks for the purpose of effluent retention increase prior to effluent discharge from the on-site effluent Treatment Plant (ETP):
 - One new 9136m³ above ground aerobic treatment tank.
 - Two new chemical tanks.
 - 35m³ Caustic tank
 - 45m³ Ferric Chloride tank
 - Repurposing existing sub-surface tanks
 - 4,400m³ Pre-anoxic tank
 - 3,800m³ Post-anoxic tank
 - 600m³ Re-aeration tank

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision making process. It summarises the decision-making process to show how the main relevant factors have been taken into account. We have assessed the aspects that are changing as part of this variation, we have not revisited any other sections of the permit.

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

Read the permitting decisions in conjunction with the environmental permit and the variation notice.

Key issues of the decision

Emissions to air

An air quality assessment (AQA) was provided by the Operator and a further AQS audit was completed by the Environment Agency's Acoustics & Air Quality Modelling & Assessment Unit (AQMAU).

The Operator concluded that for human health receptors: "based on professional judgement, the impact from the proposed new boiler is considered negligible". For ecological receptors, the Operator concludes the proposed new boiler "contributes less than 0.4% of the relevant annual mean NO_x and SO₂ critical level at all assessed protected conservation areas and the contribution from the proposed new boiler is considered negligible".

The Operator has assessed two scenarios, one for all sources at the site and one for the new boiler in isolation. The existing operation has been unchanged for several years and emissions will be included in the background.

Operator assessment when considering new source only:

- All PCs at human health (HH) receptors, both long-term (LT) and short-term (ST), for all pollutants are below insignificance thresholds.
- All PCs at ecological receptors, both long-term (LT) and short-term (ST), for all pollutants are below insignificance thresholds.

Operator assessment when considering all sources:

- LT NO₂ PCs exceed the insignificance threshold of 1% at some HH receptors, however PEC does not exceed.
- ST NO₂ PCs exceed the insignificance threshold of 10% at some HH receptors. PECs exceed at nearby public right of way receptors; however,

it is unlikely that a member of the public would be here for the considered exposure period.

- ST PCs for both TVOC and NWVOC exceed the insignificance thresholds, however PECs do not exceed.
- LT PCs for both TVOC and NWVOC exceed the insignificance thresholds, PECs exceed at nearby public right of way receptors; however, it is unlikely that a member of the public would be here for the considered exposure period.
- LT and ST NO_x PCs exceed the insignificance thresholds at Nene Washes SAC, Ramsar, SSSI, However PECs do not exceed.
- NO_x PCs at all other ecological receptors are below the insignificance thresholds.
- Nutrient nitrogen deposition PCs exceed the insignificance threshold, and PECs exceed the critical load of 10 kgN/ha/yr. APIS shows that the background already exceeds at critical load at Nene Washes SAC, Ramsar, SSSI.

The AQMAU audit completed sensitivity checks, including sensitivity to building downwash, terrain effects, VOCs as 1,3 butadiene and alternative meteorological site data. Meteorological data from RAF Wittering meteorological station, 20 km west of the dispersion site was used. Additional testing was conducted using numerical weather prediction (NWP) data produced by AQMAU at the dispersion site. We have not been able to verify the VOC concentrations used by the Operator, as the monitoring reports were not provided.

AQMAU audit when considering new source only:

- AQMAU's ST VOCs as 1,3 butadiene PCs exceed the insignificance threshold, however PEC does not exceed.
- All other PCs for human health are below the insignificance thresholds.
- AQMAU's predicts all LT and ST PCs to be below insignificance thresholds at all ecological receptors.

AQMAU audit when considering all sources:

- AQMAU's ST NO₂ PCs exceeds the insignificance threshold, however PECs do not exceed.
- LT VOCs as Benzene PCs exceed the insignificance threshold, however PECs do not exceed.
- LT and ST VOCs as 1,3-butadiene PCs exceed the insignificance threshold; however, PECs do not exceed.
- AQMAU's LT nutrient nitrogen deposition PCs at Nene Washes SAC, Ramsar, SSSI exceeds the insignificance threshold when compared against a critical load of 10 kgN/ha/yr. The PECs cause an exceedance of

the critical load. APIS shows that the background already exceeds at critical load at Nene Washes SAC, Ramsar, SSSI.

In conclusion, whilst we do not fully agree with the Operator's absolute numerical predictions, we agree with the Operator's conclusions that the predicted PCs associated with the proposed new boiler, in isolation will not cause exceedances of relevant environmental standards at any location of exposure for either human health or ecological receptors.

Habitats

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

The following European statutory sites are within screening distance of the site:

Nene Washes SAC (UK0030222)^

Orton Pit SAC (UK0030053)^

Nene Washes SPA (UK9008031)^

Nene Washes Ramsar (UK11046)^

Both air and water emissions are made from this site. Wastewater (4,000m³/day) resulting from the production process and machinery cleaning is discharged into the water framework directive (WFD) waterbody, River Nene (Islip to tidal) (GB105032050381) via an interceptor, and is treated in the on-site biological effluent treatment plant (ETP) through a covered anaerobic lagoon, activated sludge treatment, sedimentation, and reverse osmosis. Run-off water from roofs and yards is collected in the site drainage system and processed in the ETP prior to discharge to River Nene. There will be no change to water emissions as a result of this application.

Whilst water emissions remain the same, air emissions in the form of NO_x and SO₂ will be increasing slightly. Therefore, the operator has carried out an air quality modelling report which has been reviewed and assessed by our internal modelling specialist team (AQMAU).

The results of the air modelling report showed all emissions fell below relevant thresholds except for Nitrogen deposition; therefore, the operator was asked to make changes to their activity and re-model to bring the impacts from nitrogen deposition down, to below thresholds.

The operator submitted two versions of the air quality modelling report. The first version showed exceedances for nitrogen deposition at 4.2%, and when combined with the background concentrations gave a PEC of 160%. The impact on features was looked into in depth. The bird species associated with the Nene Washes were at risk since they were currently in an unfavourable status and relied heavily on their supporting habitat, grassland, also in an unfavourable status. A similar conclusion was come to for the spined loach. We asked the operator to make changes to their activity and re-model to bring the process contributions to below the 1% significance threshold.

The operator re-modelled the activity and supplied supporting information on 8th July 2025 regarding changes they have made to their operation as follows:

The primary parameter of the changes seen in the updated report is through extensive maintenance to improve efficiency of their existing AD plant. The operator is maintaining/modifying the AD plant to meet the Medium Combustion Plan Directive (MCPD) requirements by the 2030 deadline. The AD plant has gone from producing NO_x levels of 3,590 mg/Nm³ in the original 2022 air modelling report to approximately 600mg/Nm³ in the recent 2025 report, and as a result nitrogen deposition loads have fallen below 1%. The new boiler being installed will meet the MCPD requirements also and a NO_x limit of 100 mg/Nm³ will be set. Additionally, the operator plans to have the new boiler equipped to eventually connect to the national grid, thus being 100% electric. It is expected NO_x emissions will continue to reduce over the future. Since all process contributions fall below the 1% thresholds, we can conclude no likely significant effect.

We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

Site of Special Scientific Interest

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on sites of special scientific interest (SSSI) designations. The application is within our screening distances for these designations.

The following SSSI site is within screening distance of the site:

Nene Washes SSSI

An appendix 4 report was created to assess the impact of this SSSI.

Both air and water emissions are made from this site. Wastewater (4,000m³/day) resulting from the production process and machinery cleaning is discharged into the water framework directive (WFD) waterbody, River Nene (Islip to tidal) (GB105032050381) via an interceptor, and is treated in the on-site biological effluent treatment plant (ETP) through a covered anaerobic lagoon, activated

sludge treatment, sedimentation, and reverse osmosis. Run-off water from roofs and yards is collected in the site drainage system and processed in the ETP prior to discharge to River Nene. There will be no change to water emissions as a result of this application.

Whilst water emissions remain the same, air emissions in the form of NO_x and SO₂ will be increasing slightly. Therefore, the operator has carried out an air quality modelling report which has been reviewed and assessed by our internal modelling specialist team (AQMAU).

The results of the air modelling report showed all emissions fell below relevant thresholds except for Nitrogen deposition; therefore, the operator was asked to make changes to their activity and re-model to bring the impacts from nitrogen deposition down, to below thresholds. Details of both modelling reports can be found in the Habitats section of this document and in the habitats risk assessment stage 1 document.

The proposed permission is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest.

We consider that the application will not affect the SSSI identified.

Noise and vibration

A qualitative noise screening assessment was carried out for the changes proposed by this application. The evaluation indicated that a Noise Impact Assessment (NIA) and Noise Management Plan (NMP) are not required and that the risk is negligible.

The main potential source of noise and vibration regarding this variation is from the new boiler and fryer condensers. Additional sources could originate from new ancillary equipment such as pumps, motors and compressors. Potential audible noise could be transmitted through the air medium to the surrounding area. An environmental noise survey was completed which established 'no adverse impact' on the current noise levels to the surrounding residential receptors. Noise is expected during the installation of the equipment but limited to daytime hours.

We determine the overall risk of noise and vibration under normal operations is low.

Odour

There is potential for an increase in odour with the potential increased production and implementation of the new boiler and fryer condensers. In the event of an emergency or abnormal conditions, this could lead to the release of airborne odour. However, under normal conditions, there would be no impact. However, there is a small lane next to the site which is a public right of way access route.

Any odour would be minimal and only while passing through the route. There is no perceived adverse effect on public health from this as deemed insignificant. We determine that the risk of odour to be low.

Containment

The new and repurposed containment tanks for the purpose of effluent retention increase prior to effluent discharge from the on-site ETP.

The new 9136m³ above ground aerobic treatment tank material is composed of steel with a bund capacity greater than 110%. The bund consists of an internal 10214m³ steel wall tank within an external 1680m³ concrete setting. High level alarms are installed to aid with overflow protection measures.

The two new chemical tanks consist of one 35m³ tank holding Caustic Acid and one 45m³ tank holding Ferric Chloride. Both tanks are constructed of spirally wound high-density polyethylene (HDPE) each with an integral bund of 110%. Level indicators and an electronic fill system are employed to prevent overflow.

The three repurposed existing sub-surface tanks consist of one 4,400m³ Pre-anoxic tank, one 3,800m³ Post-anoxic tank and one 600m³ Re-aeration tank which all consist of concrete material. All tanks have been relined in preparation of the change of purpose use.

Construction of the new above ground aerobic treatment tank will take place off-site where possible for installation on-site.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

The decision was taken in accordance with our guidance on confidentiality.

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

We consulted the local authority.

No response was received.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

Health and Safety Executive

UK Health Security Agency

No responses were received.

The regulated facility

We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1'.

The operator has provided the grid reference for the emission point from the medium combustion plant.

The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

The combined net rated thermal input of the plant, excluding spark ignition gas engines, is greater than 20 MW. In accordance with the Environmental Permitting (EP) Regulations (England and Wales) 2016 the activity could be considered to be an aggregated Part B activity under section 1.1 of schedule 1. However, we are permitting the activity as one described in schedule 25A as Best Available Techniques (BAT) does not apply to aggregated section 1.1 Part B activities in accordance with schedule 8 of the EP Regulations.

The site

The operator has provided a plan which we consider to be satisfactory.

This plan shows the extent of the site of the facility including the discharge points.

The plan is included in the permit.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation,

landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

We have not consulted Natural England

The decision was taken in accordance with our guidance.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator's risk assessment is satisfactory.

General operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

National Air Pollution Control Programme

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Fire prevention plan

We haven't requested a Fire Prevention Plan at this time, but we will request one in the future if we consider the site poses a risk of fire.

Updating permit conditions during consolidation

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

Emission limits

Emission Limit Values (ELVs) and equivalent parameters or technical measures based on the medium combustion plant directive (MCPD) have been added for the following substance:

- Oxides of Nitrogen (NO and NO₂ expressed as NO_x)

The limit is set at 100 mg/m³.

Monitoring

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

- Oxides of Nitrogen (NO and NO₂ expressed as NO_x) - Periodic reference period and a monitoring frequency of three-yearly under monitoring standard/method BS EN 14792.
- Carbon Monoxide - Periodic reference period and a monitoring frequency of three-yearly under monitoring standard/method BS EN 15058.

These monitoring requirements have been included to comply with the MCPD.

Reporting

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

Point source emissions to air parameters as required by condition 3.5.1 for boiler 3, emission source point to air A26.

We made these decisions in accordance with the MCPD.

Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

Incorporation of the EA initiated Anaerobic Digestion (AD) review.

We have taken the opportunity during this Operator initiated application to include the requirements of the EA initiated AD review into this permit. The list of changes can be found in Schedule 1 of the permit notice.

Correction of the site's maximum theoretical capacity

The site's maximum theoretical capacity has been corrected from 410 tonnes per day to 800 tonnes per day. The Operator originally provided the figure of 410 tonnes per day for the site's maximum theoretical capacity however, this was the average daily production. The increase in production for this variation to 455 tonnes per day is for the average production. While considering all information provided in V005 and V007, it was agreed that the original site's maximum theoretical capacity in the permit was in error and has been updated to 800 tonnes per day in this variation. This maximum figure cannot be met for more than a few days due to enhanced cleaning requirements and maintenance.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit variation.

Paragraph 1.3 of the guidance says:

"The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation."

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution.

This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.