

# Permitting decisions

## Variation

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We have decided to grant the variation for Humberstone Road operated by Young's Seafood Limited. The variation number is EPR/BQ1972IR/V005.

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:

- highlights [key issues](#) in the determination
- summarises the decision making process in the [decision checklist](#) to show how all relevant factors have been taken into account
- shows how we have considered the [consultation responses](#)

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. The introductory note summarises what the variation covers.

## Key issues of the decision

### Emissions to sewer

A new emissions point to sewer is being added from the new part of the site to service F Factory. Wastewater from the factory will gravitate to a pit from where it will be pumped at up to 50 m<sup>3</sup>/hr (controlled by level switches in the sump) over a screen, which will remove all particles larger than 1mm diameter. These are compacted and drop into a storage bin for off-site disposal.

Screened water gravitates to a 150 m<sup>3</sup> balance tank and from there will be pumped at up to 15 m<sup>3</sup>/hr through a dissolved air flotation plant (DAF). Chemicals will be added before the DAF in order to create "flocs" (coagulated and flocculated fats and proteins present in the wastewater) by a chemical reaction. These will float to the top of the DAF and will be skimmed off and pumped to a storage tank for off-site disposal to an anaerobic digester. Both the balance and sludge tanks will be lidded. Cleaned effluent will gravitate to sewer and on to the Pyewipe Waste Water Treatment Works in Grimsby.

An application for consent to discharge trade effluent was lodged with Anglian Water. Anglian Water confirmed the existing trade effluent consent conditions associated with the discharges from Factories C, D, and E (consent ref: ADZ 453) and Factory F (consent ref: TECO-0099-2018). The maximum quantity to be discharged is 500m<sup>3</sup> in any 24 hours, with a maximum rate of discharge of 81m<sup>3</sup>/hr. This matches the current consent to discharge for the Humberstone Road side of the site.

## Emissions to air

The two new thermal oil boilers for F factory have individual input capacities of 0.6MWth, with the new boilers having a combined input capacity of 1.2MWth. In addition two existing boilers, with individual thermal inputs of 0.13MWth, will be relocated to F factory. The combined thermal input capacity for all boilers at the installation is 10.19MWth.

The existing site includes a number of frying lines to cook fish products (emission points A1 to A5); natural gas burners to provide indirect heating of thermal oil jackets serving the fryers (emission points A8 to A13); and steam and hot water boilers that serve factory processes (emission points A6, A7, A15 and A16). The current variation includes two additional frying lines and their associated natural gas boilers (emission points A19 and A20) located in the F factory building, with individual thermal input capacities of 0.6MWth. The consultant assessed emissions of NOX, CO from the natural gas boilers and burners and VOC and PM10 from the fryers for the whole plant. We have included prediction from the variation only in our checks.

The consultant used ADMS 5.2 air dispersion modelling software. They used three years of meteorological data observed between 2013 and 2015 at Humberside International Airport, located at approximately 16 km northwest the facility. This station recorded a prevailing southwestern wind direction likely to be present at the site.

The consultant used a surface roughness length of 1 m for the dispersion site, representative of cities and 0.3 m for the meteorological site, representative of agricultural areas.

Table 1 below indicates the maximum predicted pollutant concentrations. The consultant assumed that measured total particulates are PM<sub>10</sub>. This is likely to be conservative since only a fraction of total particulates is likely to be equal to or below 10 µm There are no predicted exceedances of the EQS's for NO<sub>2</sub>, PM<sub>10</sub>, or CO.

**Table 1 – Maximum Predicted Pollutant Concentrations**

Pollutant	Averaging Period	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	% PC of EQS	PEC (µg/m <sup>3</sup> )	% PEC of EQS
<b>NO<sub>2</sub></b>	Annual	40	13.86	34.64	36.76	91.89
	1 hour (99.8 <sup>th</sup> %ile)	200	33.39	16.70	79.19	39.60
<b>PM<sub>10</sub></b>	Annual	40	3.42	8.54	20.34	50.84
	1 hour	50	9.39	18.77	43.23	86.45
<b>VOC</b> (assumed C <sub>6</sub> H <sub>6</sub> )	Annual	5	22.96	459.11	23.39	467.79
	1 hour	195	562.63	288.53	563.50	288.97
<b>CO</b>	Rolling 8-hour	10,000	49.38	0.49	693.38	6.93

EQS: Environment Quality Standard; PC: Process Contribution; PEC: Predicted Environmental Contribution

The consultant assumed that all VOCs are benzene (C<sub>6</sub>H<sub>6</sub>), which would result in an exceedance of the associated EQS. However stacks monitoring reports for both fryers show that there are no benzene or 1,3-butadiene in the VOCs emissions (see tables 2 and 3 below).

**Table 2 - VOC C Process Fryer Screening Summary**

Test	Sampling Time	Concentration (mg/m <sup>3</sup> )	Emission Rate (g/hr)
Run 1	11:48 - 12:18 02 August 2018	21	62

**Table 3 - VOC Speciation as Recorded by the C Process Fryer VOC Screening Results**

VOC Substance	Mass Emission Rate (g/hr)
2-Heptenal	15
Hexanal	8
2-Pentylfuran	6
1-Octen-3-ol	5
2-Octenal	5
1-Pentanol	4
2-Decenal	4
2-Nonenal	4
Nonanal	4
Octane	4
<b>Total</b>	<b>62</b>

For the speciated VOCs identified in the monitoring there are no associated EALs/EQS values. Our checks indicate that exceedances are unlikely for the rest of pollutants.

Following a Nature and Conservation Screening Report, the consultant assessed 32 habitat sites locations identified within Environment Agency guidance distance criteria of 2 km for Sites of Special Scientific Interest (SSSI) and nature sites, and 10 km for Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

The consultant has assessed impacts of pollutants against critical levels and nitrification and acidification following Air Quality Technical Advice Group (AQTAG) 06 guidance. Their predictions presented in the consultant's report are insignificant. We have based our checks on critical levels and critical load values using data from APIS website.

We carried out detailed check modelling and sensitivity analysis using ADMS 5.2 and alternative modelling software AERMOD (version 18081). Our checks were based on consultant's modelling files and meteorological data observed at Humber Airport from 2010 to 2012 and Donnanook from 1993 to 1996.

Our check modelling also included:

- Surface roughness length of dispersion site of 0.5 m, which represents surface characteristics similar to those of the dispersion site.
- Review of source parameters and emission rates from monitoring reports.
- Predictions from the variation only (sources in the F factory building).

As result of our checks we found that, although we do not fully agree with consultant's numerical values, we agree with consultant's conclusion that exceedances of any EQS are unlikely.

Although stacks are nearly at building heights and dispersion is poor, as shown by an annual NO<sub>2</sub> of 10% of the EQS at receptors, there is enough headroom at receptors and exceedances of the long term EQS are unlikely. In addition, contributions from the sources included in the variation are a small proportion of the total PC.

## Site Condition Report

A Site Condition Report (SCR) was submitted as part of the application comprising a desktop assessment and visual inspection. The local geology is Tidal Clay and Silt (Unproductive) over Glacial Till (Secondary) over Chalk. The site itself is located within a mixed area of light industrial land use to the east and north, recreational land to the south and residential and commercial use to the west. The nearest residential properties are 10 m to the west of the Site. The land being added as part of the variation has an area of 5.53 hectares, with buildings occupying approximately 70% of the land. The site was undeveloped prior to the construction of the bakery and two storage and distribution buildings in the early-1960s. While there is the potential for some impacts from these historical operations, including handling of effluent and use of above ground storage tanks for gas oil, diesel and waste storage, no evidence of contamination from the previous activities was identified during the site assessment.

There are no anticipated emissions to ground, surface water or groundwater. All surface water run-off and process effluent is designed to discharge to sewer. The majority of the site, excluding areas occupied by buildings, is either laid to concrete or tarmac. The hard standing will prevent the downwards migration of any substance.

There are three bulk storage tanks proposed in the site extension, one 44,000 litre new rapeseed oil, one 44,000 litre blended oil and one oil tank for future use (75,000 litre). The tanks have a lined concrete bund with capacity of 110% of the content, are fitted with a level gauge and high level alarm, and are subject to routine inspections and maintenance.

The effluent treatment plant 75,000 litre sludge tank is similarly banded to 110% and has a level gauge and high level alarm. The entire effluent treatment plant area is self-contained using grid drains and gullies in key areas (doorways, intermediate bulk container (IBC) chemical store area and DAF plant) to prevent any release of effluent outside the enclosed areas in the event of a leak or spill. Spill kits will also be in the area for use if required with personal trained in their use.

There are no records of pollution incidents at the site since it was commissioned.

Taking these points into consideration and the low likelihood that land pollution will occur during the future operation of the site it is not considered that intrusive sampling is necessary for a baseline to be established.

## Odour

Food production involving any form of cooking or heating and brewing is, by its nature, a potentially odorous activity. This is recognised in our 'Control and monitor emissions for your environmental permit' EPR guidance <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#odour>

Condition 3.3.1 of the environmental permit reads as follows:

"Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour."

The site is situated in a built up area consisting of a mixture of residential, commercial and industrial buildings on the immediate boundaries of the site. To the north there is a recreation ground; to the east a residential area and school to the south east; to the south more recreation space and to the west, commercial premises and residential areas. St Hughes Hospital and St Andrews Hospice lie approximately 1 km to the south west of the site, and Ladysmith Care Home to the west of the site set back on the other side of Ladysmith Road. The closest residential receptor is within 50 m of the installation boundary. It is appropriate to require an OMP when such sensitive receptors have been identified this near to the installation to prevent, or where that is not practicable, to minimise the risk of pollution from odour emissions.

The risk assessment for the Installation provided with the Application lists key potential risks of odour pollution beyond the Installation boundary. These potential sources of fugitive release of odour are as follows:

- Raw materials receipt and unloading
- Emissions from fryers
- Effluent plant
- Effluent pit emptying
- Compactor skip
- Animal by-product category 3 skips
- Site drains
- Air exiting building entrances and exits

The Operator is required to manage the installation activities in accordance with condition 3.3.1 of the permit and the OMP. Operations with the most potential to cause odour emissions have been assessed as those listed above. The Odour Management Plan covers control measures, in particular, procedural controls. The majority of fish received is frozen, with all ingredients received in enclosed containers and unloaded directly in to loading bays. Each fryer is operated at the lowest practicable temperature. Knit mesh filters are in place on both fryers to capture entrained oil, and are checked and cleaned every four hours. Effluent plant balance tanks and sludge tanks are lidded. There is routine maintenance and inspection of plant and yard areas. The DAF plant operates during hours of production and is housed internally. Site drains form an enclosed drainage system with periodic maintenance. Enclosed areas of the site do not have external doors or windows. Fast acting rolling doors are utilised across the site where vehicle access/egress is required.

The Safety, Health and Environment Advisor is responsible for ensuring that daily olfactory inspections are made at the site and its perimeter in order to identify any sources of odour and to establish whether any odours are discernible at the boundary. Due to the potential for desensitisation to odours, whenever possible odour monitoring will be carried out by site personnel who do not work in manufacturing areas

The Odour Management Plan will be reviewed annually or in the event of an incident, complaint or change in key personnel.

We, the Environment Agency, have reviewed and approved the Odour Management Plan. The Operator's compliance with the OMP will minimise the risk of odour pollution beyond the installation boundary and the risk of odour pollution at sensitive receptors. We agree with the scope and suitability of key measures but this should not be taken as confirmation that the details of equipment specification design, operation and maintenance are suitable and sufficient. That remains the responsibility of the Operator.

## **Noise**

Whilst the food production activities are contained within buildings, the proximity of sensitive receptors and potential for noise from plant machinery and unloading/loading of vehicles means there is potential for this to be an issue.

Condition 3.4.1 of the Permit reads as follows:

Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan, to prevent or where that is not practicable to minimise the noise and vibration.

There are sensitive receptors within 50 m of the Installation boundary as stated in the Odour section above. The Operator has provided a noise management plan (NMP) as part of the Application supporting documentation, and further details are provided in the Noise Management Plan review section below.

The risk assessment for the Installation provided with the Application lists key potential risks of noise pollution beyond the Installation boundary. These activities are as follows:

- Fixed plant
- Process line

- Fans, motors, HVAC (heating, ventilation, and air conditioning), and refrigeration units.
- HGV movements and forklift truck movements
- Alarm systems

We have assessed the NMP and the H1 risk assessment for noise and conclude that the Applicant has followed the guidance set out in <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#noise-and-vibration-management-plan>. The NMP covers measures, in particular, procedural controls addressing vehicle movement and maintenance and repair work of fixed plant, fans, motors, and refrigeration units.

We are satisfied that all sources and receptors have been identified, and that the proposed mitigation measures will minimise the risk of noise pollution / nuisance.

## Decision checklist

Aspect considered	Decision
<b>Receipt of application</b>	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.
<b>Consultation</b>	
Consultation substantial change installation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website from 15/10/18 to 12/11/18.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> <li>• Food Standards Agency</li> <li>• Local Authority - Environmental Health &amp; Planning - North East Lincolnshire Council</li> <li>• Sewerage Authority - Anglian Water</li> <li>• Public Health England</li> </ul> <p>The comments and our responses are summarised in the <a href="#">consultation section</a>.</p>
<b>The facility</b>	
The regulated facility	<p>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 RGN 2 'Defining the scope of the installation'.</p> <p>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.</p>
<b>The site</b>	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility including the discharge points. The plan is included in the permit.
Site condition report	The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports.
Biodiversity, heritage, landscape and	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.

Aspect considered	Decision
nature conservation	<p>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process.</p> <p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance. An appendix 11 was sent to Natural England for information only.</p>
<b>Environmental risk assessment</b>	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment all emissions may be categorised as environmentally insignificant.</p> <p>See <a href="#">key issues</a> for further details.</p>
<b>Operating techniques</b>	
General operating techniques	<p>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.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p>
Operating techniques for emissions that screen out as insignificant	<p>Emissions of NO<sub>x</sub>, CO, VOC and PM<sub>10</sub> have been screened out as insignificant, and so we agree that the applicant's proposed techniques are BAT for the installation.</p> <p>We consider that the emission limits included in the installation permit reflect the BAT for the sector.</p> <p>See <a href="#">key issues</a> for further information.</p>
Odour management	<p>We have reviewed the odour management plan in accordance with our guidance on odour management.</p> <p>We consider that the odour management plan is satisfactory.</p> <p>See <a href="#">key issues</a> for further information.</p>
Noise management	<p>We have reviewed the noise management plan in accordance with our guidance on noise assessment and control.</p> <p>We consider that the noise management plan is satisfactory.</p> <p>See <a href="#">key issues</a> for further information.</p>



Aspect considered	Decision
<b>Permit conditions</b>	
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 permit(s).
Use of conditions other than those from the template	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template.
Emission limits	No emission limits have been added, amended or deleted as a result of this variation.
Monitoring	Monitoring has not changed as a result of this variation.
Reporting	Reporting has not changed as a result of this variation.
<b>Operator competence</b>	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
<b>Growth Duty</b>	
Section 108 Deregulation Act 2015 – Growth duty	<p>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.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“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.”</p> <p>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.</p> <p>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.</p>

## Consultation

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public, and the way in which we have considered these in the determination process.

### Responses from organisations listed in the consultation section

<b>Response received from</b>
Public Health England - Centre for Radiation, Chemical and Environmental Hazards (CRCE), Nottingham. Dated 22/10/2018
<b>Brief summary of issues raised</b>
PHE noted the site is located in a predominantly residential area, with the closest residential receptors to the site within 100m to the west and east and from approximately 500m to the north and south. PHE consider the emissions to present a low risk to human health assuming the installation complies in all respects with the requirements of the permit, including the application of Best Available Techniques (BAT).
<b>Summary of actions taken or show how this has been covered</b>
Conditions 3.1.1, 3.2.1, 3.3.1, and 3.4.1, concerning noise, odour and fugitive emissions included in permit. We have deemed the Applicant's approach to noise, odour, ammonia, and bioaerosols satisfactory. Please see <a href="#">key issues</a> for further information.

<b>Response received from</b>
Anglian Water Services Limited, Lancaster House, Huntingdon. Dated 09/11/2018
<b>Brief summary of issues raised</b>
Anglian Water confirmed the existing trade effluent consent conditions associated with the discharges from Factory D (consent ref: ADZ 453) and Factory F (consent ref: TECO-0099-2018).
<b>Summary of actions taken or show how this has been covered</b>
N/A

No responses were received from members of the public and the following organisations

- Food Standards Agency
- Local Authority - Environmental Health
- Local Authority - Planning