

Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for Southall Ready Meals Factory operated by Noon Products Limited.

The permit number is **EPR/AP3139AM/A001**

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:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

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

Structure of this document

- Description of main features of the installation
- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Description of the main features of the installation

Noon Products Windmill Lane Facility is an installation located in Southall, west of London. The site was purpose built for Noon Products Limited, which operates as a subsidiary of Kerry Foods, and opened in 2003. It produces and supplies Indian and Oriental chilled ready meals for the retail sector. The site now requires a Part A environmental permit, following the 2013 update to the Environmental Permitting Regulations which implemented the Industrial Emissions Directive (IED). This redefined the thresholds for the food and drink sector based on the maximum production capacity of the installation.

Section 6.8 Part A(1) (d)(iii)(aa) – Treatment and processing of animal and vegetable raw materials, both in combination and separate products, with a finished product production capacity day greater than 75 tonnes per day, where the proportion of animal material in percent of weight is equal to 10% or more.

The factory has the capacity to produce approximately 91 tonnes of finished product per day with a product meat content greater than 10%.

The key stages of the process undertaken at the installation are receipt and storage of raw materials, preparation and cooking of ingredients, chilling, filling and packaging of finished products. The fully prepared food is held in the holding and dispatch chillers to await dispatch from site, primarily for sale to domestic customers.

There is an effluent treatment system on site. Process effluent flows to a primary settlement tank where large solids are removed prior to transfer to a balance tank. Treatment chemicals (coagulants and flocculants) are added to the effluent prior to further processing through a Dissolved Air Flootation (DAF) plant and subsequent discharge into the Thames Water sewer. Due to the capacity of the system, this is also a listed activity in its own right:

Section 5.4 Part A(1)(a)(ii) - Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment.

Surface water run-off comprising of rainwater from roofs and hard standings is collected via a network of pipes and drains and is discharged to a Thames Water surface water sewer for further treatment at Mogden Waste Water Treatment Works.

The following directly associated activities also occur on site:

- Cleaning – This is undertaken manually and comprises of an initial “dry clean” to remove residue followed by possible “wet cleaning” where required to meet food hygiene requirements. Water use is minimised where possible during wet cleaning with the use of high pressure jet washing.

- Refrigeration – There are eight refrigeration units on site housed in two refrigeration plant rooms. Four of the units currently use R134A as a refrigerant and four currently use R404A. There are also three blast chillers (two at intake and one at dispatch) that currently use R404A, one freezer that currently uses R404A and one holding chiller that currently uses R134. The applicant is aware of the requirements of the F-Gas regulations and will ensure any unsuitable refrigerants are phased out in accordance to this requirement.
- Combustion – Combustion plant on site comprises three natural gas fuelled boilers in the boiler house with a thermal input of 2.8MW each and three ovens in the production area with a thermal input of 0.36MW each. The total combined thermal input of all combustion plant associated with the permitted activities is 9.48MW.
- Storage and handling of chemicals – This includes chemicals used for cleaning production equipment, general factory cleaning purposes, engineering and water/effluent treatment. Cleaning chemicals are stored at the exterior of the factory in the chemical store area. All chemicals used on site come supplied with a Material Safety Data Sheet (MSDS) and must go through an internal health and safety approval procedure. Storage areas are bunded to prevent contamination and any environmental risk due to leakage. All empty chemical drums are returned to the suppliers for reuse.
- Water treatment –
 - Water chlorination: The site produces 50 litres of chlorinated water per day which is used to disinfect utensils in production areas.
 - Water softening: Water is softened before use in the boilers and for some production activities. This water passes through a water softening unit located in the boiler house and is then stored in the softening water storage tank (volume 36m³) before use in the boilers.
- Odour abatement - All process air from the production lines is piped into an odour abatement system, comprising of a sodium hypochlorite chemical scrubber, before emitting to atmosphere.
- Generation, storage and handling of waste - All waste is segregated on site into appropriate containers and periodically removed by licensed carriers at regular intervals. Waste food and sludge from the DAF plant is transported off site for anaerobic digestion.

The nearest residential receptors lie 35m east of the site, with further residential areas located 250m northeast and 300m south of the site boundary. Richmond Park SAC and West London Waterbodies SPA/Ramsar lie within 10Km of the installation. There are no SSSI within 2km of the installation boundary.

Key issues of the decision

The application submission contains a number of supporting documents that describe the controls and operating techniques at the installation, having regard for Best Available Techniques (BAT) requirements, as specified in our guidance and to ensure compliance with the environmental permit conditions. These key controls and techniques are described in the following sections.

General Management

The installation has a bespoke Environment Management System (EMS) in place which is designed to ensure that environmental management is a high priority within the sites operations. The system addresses the design, operation and maintenance of the process plant. The site obtained ISO14001 accreditation in 2010.

The system addresses the audit and monitoring of processes, including waste disposal and complaints handling and staff training. The requirement for an EMS is also maintained through the permit conditions.

Odour

Odorous raw materials are consumed in the processes and the installation has the potential to cause odorous emissions through various stages of the process such as receipt of raw materials, cooking and the ETP facility. The site is located in a mixed residential and industrial/commercial area. The site is surrounded to the South, West and North by industrial premises. The nearest residential receptors lie 35m East of the site, with further residential areas located 250m Northeast and 300m South of the site boundary. Ealing hospital is located 300m East of the site and two schools lie between 500m and 1000m distance of the site. There have been three odour complaints since 2008. An odour survey and impact assessment has been carried out with in accordance with the H4 methodology. This demonstrated that the potential for odour beyond the site boundary is considered to be low.

The process area is ventilated through the odour abatement system, comprising a chemical scrubber (currently using sodium hypochlorite). All air from the production facility is piped into the odour abatement system for chemical treatment before emitting to atmosphere. The system includes a sodium hypochlorite generation unit, scrubber towers, exhaust fan, pumps and spray system. Further management and controls are in place to minimise odours from the site such as:

- Ensuring the yard area is kept clean.
- Ensuring all plant and equipment is installed and maintained to manufactures specification to ensure correct operation.
- Drains are deigned to prevent build-up of organic matter and are regularly flushed.
- Minimise the retention of wastewater under anaerobic conditions through appropriate mixing, especially in the balancing tank to prevent the formation of odorous compounds.
- Development of a Standard Operating Procedure related to the emptying of the sludge tank and emptying and cleaning of other ETP tanks.

The applicant has provided an Odour Impact Assessment and an Odour Management Programme which appears to demonstrate the mechanisms and procedures they have in place to minimise and prevent odours.

At this time we do not require a site specific Odour Management Plan, however the permit conditions enable the Environment Agency to require the operator to develop and implement an OMP if deemed necessary.

Noise and Vibration

The applicant has provided an independent Environmental Noise Assessment which concludes that the site is very unlikely to emit noise at nuisance levels that exceed the existing background noise level. It notes that the facility is situated in a busy area with multiple prominent sources of background noise. Background noise arises as a result of traffic to the east and north of the site, a train line to the north of the site and noise from Heathrow airport was also audible , as well as noise from other industrial buildings to the south and west of the facility.

Potential sources of onsite noise include noise from equipment and machinery, the plant room, delivery/dispatch vehicles and employees. Sufficient management and controls are in place to minimise these such as:

- Correct equipment is purchased
- Maintaining equipment to high standards
- Operating only during daytime hours where practical
- Ensuring doors to plant rooms are kept closed
- Scheduling delivery activities during normal hours where possible
- Maintaining site roads and yard conditions
- Ensuring HGV engines are off while stationary
- Inform all employees of noise awareness

The nearest residential receptors lie 35m East of the site, with further residential areas located 250m Northeast and 300m South of the site boundary. Ealing hospital is located 300m East of the site and two schools lie

between 500 and 1000m distance of the site. There has been one complaint related to a portable refrigerator unit being left on a trailer, this was identified as not being best practice and has now ceased.

The applicant has provided a Noise Management Programme for implementing an Noise Management Plan which appears to demonstrate the mechanisms and procedures they have in place to minimise and prevent noise.

At this time we do not require a site specific Noise Management Plan, however the permit conditions enable the Environment Agency to require the operator to develop and implement an NMP if deemed necessary.

Fugitive emissions

Emissions to air and water

The installation has the potential to release fugitive emissions to air, the applicant has identified the sources of fugitive emissions and will ensure sufficient management and controls in place to minimise these.

1. Effluent Treatment Plant:
 - Housed ETP
 - Covered balancing and sludge tank
 - Continuous mixing of balancing and sludge tank
 - Weekly removal of sludge from sludge holding tank
 - Quarterly emptying of balance tank
 - Daily inspection of EPT
2. Refrigerant leakage:
 - Equipment undergoes leak testing in accordance with the F Gas Regulations
3. Waste storage areas:
 - Secure containment of all wastes ensures that litter is not an issue
 - Waste compacter is removed weekly – no food enters the compacter thus reducing the possibility of odours emitting from this source
 - Food waste is stored in secure containers and is removed regularly
4. Storage of chemicals and fuels:
 - Chemicals and fuels are stored in bunded areas or on a spill pallet

The site has a number of procedures in place to mitigate against fugitive emissions and deal with any leaks and spillages. The relevant procedures form part of the EMS and are referenced in the Site Condition Report.

The applicant has supplied a Bunding Integrity Assessment Report. 26 bunding structures were tested as appropriate for their structural and

hydraulic integrity and adequacy. The report contains the findings of the assessment and provides recommendations for maintenance works or procedural improvements where required. Improvement Conditions are included in the permit to ensure the improvements to the bunding are implemented in a timely manner.

Point source emissions

Emissions to air

Throughout the process manual and automated controls are applied to ensure that emissions to air are minimised and, where appropriate, abated. There are seven emissions points to air:

- Three natural gas powered boilers in the boiler house, supplying process steam to the whole facility
- Three ovens in the production area (all gas fuelled).
- The odour abatement system which captures steam from cookers before discharging to atmosphere.

The boilers are serviced on a routine basis to ensure good efficiency. More than 80% efficiency is considered acceptable. The boilers emit carbon dioxide (CO₂) and water along with oxides of nitrogen (NO_x) and particulate matter (PM). The applicant has undertaken a H1 Risk Assessment using the Annex F Methodology. For all parameters except NO_x, it appears to have been demonstrated that Process Contribution (PC) can be considered insignificant as:

- the long term process contribution is <1% of the long term environmental standard; and
- the short term process contribution is <10% of the short term environmental standard.

In terms of NO_x; initially the assessment showed that the overall impact from the process contributions could not be classed as 'insignificant' using the methodology above (Screening Test 1). In such cases, detailed modelling of emissions may be required where (Screening Test 2):

- The short term process contribution is more than 20% of the relevant short term environmental standard minus twice the long term background concentration; and/or
- the sum of the background concentration and process contribution exceed 70% of the appropriate long term standard.

Whilst the risk assessment did not demonstrate that the above screening test for insignificance can met, there are a number of other factors to take into consideration. It should be noted that the facility is situated within Ealing Air Quality Management Zone, designated in December 2000, monitored for NO_x and PM. It is a busy area with multiple prominent sources of background concentration. Background concentrations arise from traffic to the East and North of the site, a train line to the North of the site and from other industrial

buildings to the South and West of the facility. The existing NO₂ levels within this area of London are high and as such, the existing background NO₂ level alone is likely to significantly contribute to the predicted environmental concentration.

Whilst we are confident that the likely overall process contribution from the site is low, in the context of the background air quality, we must have a regard for objectives of the AQMZ. Consequently we have included an improvement programme to establish a monitoring and assessment regime over the next 24 months to enable the operator to monitor air emissions, demonstrate the actual impact and set a baseline in the case of future development. This monitoring is required for NO_x, CO (to demonstrate effective combustion) and standard reference conditions (gas temperature, pressure and moisture content etc). Emission Limit Values (ELV) will be set if required following a review of the information supplied to satisfy the improvement programme. An interim indicative ELV for NO_x of 250 mg/Nm³ has been set in accordance with the draft Medium Combustion Plant Directive.

In terms of VOCs, no high risk activities (such as frying or baking) take place on site. In addition, there is an odour abatement system in place and no reported significant odour issues on site. All air from the production lines is extracted and piped into the odour abatement system before emitting to atmosphere. The system is inspected and maintained on a quarterly basis by an external contractor. The system is designed to efficiently and economically treat air emissions. On that basis, we are satisfied that no significant VOC emissions are likely from this site

Emissions to sewer, surface water and groundwater

The installation discharges water throughout the process. Emissions are generated from rainwater, wash water and waste process water. Rainwater is collected via a network of pipes and drains and is discharged to Thames Water surface water sewer. All waste process water is collected in the designated process water drainage system and conveyed to the effluent treatment system (comprising primary settlement tank, balancing tanks and DAF plant). Drains in the manufacturing areas are fitted with covers to capture coarse solids and prevent their discharge into the system. All treated effluent from the DAF plant enters the final effluent sump; this is an underground sealed concrete tank, via gravity flow. Effluent is pumped from here to the on-site private connection to sewer from where it flows to a Thames water sewer. The installation has a consent for the discharge of Trade Effluent into Thames Water Sewers on Dan Way/Armstrong Way.

In order to ensure the effluent treatment system is running effectively the site carries out routine checks comprising of daily visual assessment of effluent clarity, mechanical and electrical checks, odour assessment of sludge tank, balancing tank and ETP house, recording of effluent levels within the balancing and sludge tanks, weekly pH and COD analysis and a monthly detailed analysis. These procedures form part of the EMS and process monitoring requirements within the permit.

Resource efficiency and waste management

Waste minimisation

As part of the EMS all suppliers of food and packaging materials to the installation are required to complete a Supplier Self-Assessment and then be certified by an approved auditor. Packaging includes plastics, cardboard and paper and foil. Active controls and monitoring systems are in place to account for packaging volume use and to optimise packaging use efficiently.

Resources used include dry and ambient ingredients, the majority of which are of no risk to the environment, and frozen and chilled ingredients. In the event of a refrigeration failure, products would be removed to a store on another Noon site and therefore not wasted.

Waste handling

As part of the EMS waste is appropriately handled, segregated and stored on site. The waste areas are appropriately designed and maintained.

Water usage

The site uses approx. 472m³ daily which is supplied by the mains line. The process water is pumped directly to the processing areas. There is no water storage onsite apart from the water softening holding plant, which is used in the boilers and for some production activities. The site produces approx. 50 litres of chlorinated water daily which is used to disinfect utensils in the production areas

Energy usage

The applicant is committed to the implementation of appropriate cost effective energy efficiency measures and, as part of a Climate Change Levy Agreement, has an energy efficiency plan in place.

Annex 1: decision checklist

This document should be read in conjunction with the application, supporting information and permit/notice.

Aspect considered	Justification / Detail	Criteria met
Receipt of submission		
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. The decision was taken in accordance with our guidance on commercial confidentiality.	✓
Consultation		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with our Public Participation Statement and our Working Together Agreements.</p> <p>For this application we consulted the following bodies:</p> <ul style="list-style-type: none"> • Ealing London Borough Environmental Protection • Health & Safety Executive • Public Health England • Thames Water 	✓
Responses to consultation and web publicising	<p>The web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>The decision was taken in accordance with our guidance.</p>	✓
Operator		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on what a legal operator is.	✓
The facility		
The regulated facility	The extent/nature of the activities and operations taking place at the site required clarification.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>Noon Products Limited have three units on one industrial estate; the Windmill Lane installation, Noon Collett Way and Noon Dean Way. Windmill Lane stores all the raw materials for the other units and they are distributed as required to the other units. It is not possible to access one site from the other, each site is a standalone facility.</p> <p>The applicant has confirmed that Noon Collett Way and Noon Dean Way do not have sufficient capacity to produce in excess of 75 tonnes of finished product per day, as per the Environmental Permitting Regulations 2010, as amended, Schedule 1, Part 6.8 A(1) d (iii)(aa). These sites also do not carry out any other activities which would fall above the thresholds of the Environmental Permitting Regulations. On this basis they are not technically connected to the Windmill Lane facility.</p> <p>The decision on the facility was taken in accordance with Appendix 2 of RGN 2 “Defining the scope of the installation”.</p>	
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
The site		
Extent of the site of the facility	<p>The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility.</p> <p>A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.</p>	✓
Site condition report	<p>The operator has provided a description of the condition of the site.</p> <p>We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED–guidance and templates (H5).</p> <p>The applicant has taken the decision that additional monitoring to set baseline reference data is not required for the following reasons.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>There is no indication of pollution of soil or groundwater from relevant hazardous substances used at the site, consistent with the current land use and historic land use as an agricultural site.</p> <p>All materials handling is undertaken on appropriately surfaced yards or indoors and therefore there is a relatively low risk of soil or groundwater pollution arising during normal operations.</p> <p>The design of the facility combined with good environmental management practices on-site as well as emergency response procedures would ensure that the risk of any unplanned events is minimised.</p> <p>Monitoring of the hydrocarbon and free phase chlorinated solvent contamination plume associated with historic contamination, will continue and any such monitoring data will be available to the operator and acted upon where necessary.</p>	
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat .A full assessment of the application and its potential to affect the sites (South West London Waterbodies SPA/Ramsar and Richmond Park SAC) has been carried out as part of the permitting process. We consider that the application will not affect the features of the site.</p> <p>We have not formally consulted on the application. A Habitat Directive Appendix 11 has been completed and sent to Natural England for information only. The decision was taken in accordance with our guidance.</p>	✓
Environmental Risk Assessment and operating techniques		
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 shows all emissions may be categorised as</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	environmentally insignificant. This is discussed in more detail in the Key Issues section of this document.	
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and Sector Guidance (EPR TGN 6.10).</p> <p>It has been demonstrated that the emissions from the installation (in particular the NOx as detailed in the Key Issues section of this document). We accept the operator's proposals for BAT relating to the environmentally insignificant emissions.</p>	✓
The permit conditions		
Raw materials	We have not specified limits and controls on the use of raw materials and fuels.	✓
Improvement conditions	<p>Based on the information on the application, we consider that we need to impose improvement conditions.</p> <p>We have imposed improvement conditions to ensure that:</p> <ul style="list-style-type: none"> ➤ Appropriate measures are in place to ensure that accidents that may cause pollution are minimised. An independent Bund Integrity Assessment was completed which identified failings in the bunding, all failures should be address and corrected to ensure they comply with the requirements set out in CIRIA Report C736. This has been included as an improvement condition, as described in the Key Issues section of this document ➤ The operator establishes a baseline of the emissions to air from combustion plant on site and demonstrates that their impact is not significant. 	✓
Incorporating the application	<p>We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.</p> <p>These descriptions are specified in the Operating Techniques table S1.2 in the permit and listed below:</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<ul style="list-style-type: none"> • B3 of the application section 3 - Answers to Section 3 on application form Part B3 including references to the Food and Drink Sector Guidance EPR 6.10 and the Food, Drink and Milk Industries BREF. • Document reference B.2.1 Environmental Management System (EMS) Summary dated March 2015 – lists management system documents and who is responsible. • Document reference B.2.5 H1 Environmental Risk Assessment dated March 2015. • Document reference C.1 Site Management and Control dated March 2015 – Details management of the installation with respect to the environment, including management structure, roles and responsibilities. • Document reference C.7 Emissions to Sewer March 2015 – ETP Process – details the management of effluent. • Document reference C.9 Resource Use and Energy Efficiency – Measures in place to improve efficiency. • Document reference D.3 Odour Impact Assessment dated March 2015. • Document reference D.7 Emergency Preparedness Plan dated 20/05/2014 – Procedures in the event of an emergency. • Document reference Schedule 5 no. 3 Dated 17/10/16. Confirmation of Thermal input from Double D ovens, confirmation of refrigerant used on site, clarification of production lines and clarification of use of water on site. 	
Emission limits	<p>We have decided that emission limits should be set in the permit.</p> <p>We have set emission limits for the reasons set out in the 'point source emissions' section of this document.</p> <p>We made these decisions in accordance with our guidance.</p>	✓
Monitoring	We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	We made these decisions in accordance with our guidance.	
Reporting	We have specified reporting in the permit. We made these decisions in accordance with our guidance.	✓
Operator Competence		
Environment management system	There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with our guidance on what a competent operator is.	✓
Relevant convictions	The Case Management System has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found.	✓
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with our guidance on what a competent operator is.	✓

Annex 2: External Consultation and web publicising responses

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process.

Response received from:
Public Health England
Brief summary of issues raised:
No overall objection, recommend conditions to minimise emissions and odour
Summary of actions taken or show how this has been covered
This has been address in the key issue section

Response received from
Director of Public Health
Brief summary of issues raised
Reiterated the recommendations from Public Health England
Summary of actions taken or show how this has been covered
As above

No responses were received from the following:

- Local community via Web Publication
- Local Authority Ealing London Borough Environmental Protection
- Health and Safety Executive
- Thames Water