

Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for Riverside Bakery operated by Pork Farms Limited.

The permit number is EPR/QP3433AN

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.

Description of the main features of the Installation

Riverside Bakery, operated by Pork Farms Limited is located at Queens Drive Industrial Estate, Nottingham. Riverside Bakery is an existing facility that, due to the implementation of the Industrial Emissions Directive (IED) by the amendment of the Environmental Permitting Regulations 2010 (EPR), now requires an Environmental Permit. This permit allows Pork Farms Limited to operate an installation for the following Schedule 1 Activity: Section 6.8 A(1)(d)(iii) Treatment and processing of animal and vegetable raw materials (other than milk only), both in combined and separate products, with a finished product production capacity in tonnes per day greater than 75 tonnes. In addition, the site has an effluent treatment plant included in the permit as a Section 5.4 A(1)(a)(ii) activity (Disposal of non-hazardous waste in a facility with a capacity exceeding 50 tonnes per day involving physico-chemical treatment).

Riverside Bakery produce quiches and other pastry based products, using pre-prepared raw materials that are delivered to the site for combining and cooking. Raw materials are delivered to site pre-prepared and are stored in cool rooms located in the north-eastern area of the production unit. In the main production area dough is cut and moulded into metallic pans and the custard and prepared ingredients added. The products are then baked, cooled and packed. Five automated lines operate on site with a combined maximum production capacity of 56,830.5 tonnes per year.

There are two natural gas boilers and five gas fired ovens on site that emit combustion gases to air.

The site has two trade effluent discharge consents from Severn Trent Water Limited. The first relates to a discharge to foul sewer from the on site electro-coagulation effluent treatment plant. The second relates to a discharge from the southern area of the site, effluent passes through a three-stage interceptor prior to discharge to foul sewer. The site has an effluent treatment plant treating over 50 tonnes per day of effluent. Currently the on-site effluent treatment plant comprises effluent storage in a 75,000 litre underground tank prior to treatment by electro-coagulation. There are no discharges to surface water from the site.

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

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Key issues of the decision

Site condition report

The applicant provided a site condition report (SCR) that contains information on the previous land use and details of the geological setting of the site.

Based on historical maps the SCR details the history of the site. Pre-1900 the site is shown as being used primarily for agriculture before being utilised as allotment gardens. During the 1950s historical maps show the site being covered by a pond, which extends beyond the site boundary. Maps from the 1960s and 1970s label the site as undeveloped land (described as spoil heaps on the 1963-1969 map). Maps from the 1980s show a factory has been constructed on part of the site and later maps show the factory as extended to its current size, occupying the majority of the site.

The Nottingham Castle Sandstone Formation underlying the site is classified as a Primary Aquifer under the requirements of the Water Framework Directive. Superficial deposits of Alluvium soil, comprising clay, silt, sand and gravel overlay the bedrock; groundwater vulnerability maps show this is classified as a Secondary A Aquifer. The site is situated on an area of made ground. Data from boreholes sunk in 2012 shows that the composition of the made ground comprises concrete underlain by crushed stone fill above colliery spoil (gravel with weak mudstone and occasional coal fragments). The installation lies within a groundwater source protection zone 3.

The nearest open watercourse is the River Leen directly to the north of the site, which flows into the River Trent. The applicant has provided a detailed site drainage plan which has been incorporated into the permit. There are no point source emissions to surface water from the facility. Effluent is discharged to sewer under a Discharge Consent from Severn Trent Water, either via the on-site effluent treatment plant or through a three-stage interceptor depending on the area of the site.

The application states that some areas of the site surfacing may require resealing and/or repair. An improvement condition has been included in the permit which requires the operator to carry out a survey of the current site surfacing and submit a report to the Environment Agency. The report must detail the findings of the survey and a timetable for any necessary improvement works.

A condition has been included to require periodic monitoring of soil and groundwater to be undertaken, unless the operator demonstrates that this is not necessary based on a systematic assessment of the risk. This means that the risk assessment will be revisited at least every five years, if not more frequently.

Taking these points into consideration we are satisfied that the site description and baseline report is representative of the site.

Site drainage, effluent treatment and emissions to sewer

The applicant has provided a detailed site drainage plan which has been incorporated into the permit.

The site has an effluent treatment plant treating over 50 tonnes per day of effluent, this is included in the permit as a Section 5.4 A (1)(a)(ii) activity. Currently the on-site effluent treatment plant comprises effluent storage in a 75,000 litre underground tank prior to treatment by electro-coagulation using a sacrificial aluminium plate. The underground storage tank is scheduled to be replaced by an above ground 30,000 litre balance tank during 2015. At the same time a new 26,000 litre above ground effluent storage tank will be installed and used to store sludge prior to removal from site by a tanker. An improvement condition has been included in the permit to require the operator to submit final details of the new tanks and associated secondary containment once the improvement works have been completed.

Surface water and trade effluent is collected via dedicated drainage channels both inside and outside of the production buildings. The site has two trade effluent discharge consents from Sever Trent Water. The first relates to a discharge to foul sewer from the on-site effluent treatment plant. The runoff collected in the majority of the drains (from the northern half of the site) is directed for treatment in the effluent treatment plant. The rest of the runoff collected in the drains (from the southern half of the site) is directed to a three stage interceptor before discharge to foul sewer under the second trade effluent discharge consent. The discharge consents impose limits on temperature, pH, suspended solids, chemical oxygen demand (COD) and total non-volatile matter content.

The operator has considered the risks associated with the use of chemicals and have submitted control of substances hazardous to health (COSHH) assessments. We have considered the types of raw materials and chemicals that the operator has listed as being used at the installation and which have the potential to contain Hazardous Pollutants as listed in our H1 Annex D guidance. We are satisfied that the release of any such substances will be appropriately controlled via the operating techniques at the site and through the conditions of the water company trade effluent consent.

As part of on going improvement works at the site the operator is planning to upgrade the drainage system so that all trade effluent is directed to the on-site effluent treatment plant prior to discharge to foul sewer. These improvement works are scheduled to be completed during 2015. An improvement condition has been included in the permit to require the operator to submit an updated site drainage plan once the improvement works have been completed.

Emissions to air

The operator undertook a screening of the impact of emissions using the H1 tool. However, this has not been assessed as, due to their size, the point source emissions to air from the boilers and ovens are considered unlikely to have a negative impact on air quality.

A1 and A2 are the release points serving two natural gas boilers with a combined thermal input of 5.644MWth. The Environment Agency does not normally set Emission Limit Values (ELVs) for boilers of this size. The Combustion Sector Guidance Note (SGN) EPR 1.01 identifies benchmarks for boilers of <100MW thermal input, but these are not generally applied to small boilers such as these. Due to the size of these boilers their emissions are not considered significant - the rating is less than 20MWth and it is considered that emissions to air do not require assessment and controls do not need to be set. This approach is in line with the EPR Regulations where combustion units burning non-waste based fuels are excluded from the Regulations if they have a thermal input below 20MWth. This decision is in line with the approach taken at similar permitted installations.

Storage and containment

Detergent and chemicals used for cleaning and sanitation are stored within individual drums and Intermediate Bulk containers (IBCs) in bunded, locked chemical stores. Only small volumes of cleaning chemicals are stored at any one time. Spill kits are available and site staff are trained in their use.

Waste oils are stored in 1,400 litre covered tanks with integral bunds, which are designed to provide 110% secondary containment of the inner tank volume. Waste oil is stored on an area of hardstanding away from parts of the site subject to vehicle movements in order to minimise the likelihood of damage to the tanks.

Waste is segregated on site and stored in dry, secure, designated areas prior to removal from site. To minimise the potential for odour generation, biodegradable waste is not stored on site for any longer than one week. The site also produces small volumes of hazardous waste, such as aerosols. These are kept in an enclosed store within the waste storage area prior to removal from site.

Large quantities of flour, milk, eggs, fat, meat and vegetables are used on site in the manufacture of food products. The raw materials are stored on site in designated tanks and silos. These include: 2 x 30 tonne flour silos, 2 x 10 tonnes milk storage tanks and 2 x 10 tonne egg storage silos. Control measures are in place to minimise the risk of spills and leaks from these tanks. The storage tanks are fitted with high level alarms to prevent overflowing. Spill kits are available and site staff are trained in their use. With the exception of the milk and egg tanks, all raw material storage tanks are bunded. Secondary containment for the milk and egg tanks is provided by a blind sump which is designed to catch any materials resulting from a spill or leak. Any spills can be pumped directly to the on-site effluent treatment plant.

An improvement condition has been included in the permit which requires the operator to carry out a survey of the current site surfacing and submit a report to the Environment Agency. The report must detail the findings of the survey and a timetable for any necessary improvement works.

Odour

Our guidance document 'How to Comply with your Environmental Permit' states that odour is likely to be a key issue for the food and drink sector.

The risk assessment submitted with the application identifies a number of potential sources of odour from the site including; effluent, waste storage and fugitive emissions associated with food production. There is human occupation less than 10m from the boundary as the site is located within an industrial estate. The nearest residential receptor is located approximately 100m north-east of the site, beyond the A453.

The operator has not submitted an odour management plan (OMP) with this application. However, they have committed good housekeeping, cleaning procedures, regular waste collection and covering of biodegradable waste. These, combined with the implementation of a preventative maintenance programme and planned improvements to the effluent treatment system aim to minimise the likelihood of odour generation from the site.

As part of the sites management plans, regular environmental audits and inspections are undertaken to identify any sources of odour. An environmental complaint procedure is in place and available to the public. The site is already in operation and there is no history of complaints received at the at the site relating to odour.

The standard odour condition has been included within the permit meaning that, if in future odour does become an issue and complaints are received then the operator will be required to submit an OMP for the site to the Environment Agency.

Improvement programme

The operator has identified the parts of the process that will require improvement in order to be considered Best Available Technique (BAT).

We have included five improvement conditions (ICs) in the permit to address this, details of which are as follows:

IC1: An improvement condition has been included within the permit that requires the operator to carry out an energy use audit for the installation. They are also required to develop, implement and maintain an energy efficiency plan for the installation.

IC2: An improvement condition has been included within the permit that requires the operator to carry out water efficiency audit of the installation. To identify and implement any areas for improvement in order to increase water efficiency at the installation.

IC3: An improvement condition has been included in the permit that requires the operator to submit an updated site drainage plan and details of new effluent tanks once the improvement works to the effluent treatment plant and site drainage have been completed.

IC4: An improvement condition has been included in the permit that requires the operator to carry out a survey of the current site surfacing and submit a report to the Environment Agency. The report must detail the findings of the survey and a timetable for any necessary improvement works.

IC5: An improvement condition has been included within the permit that requires the operator to submit an updated Environmental Management System (EMS) to the Environment Agency by 31 March 2016.

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 Yes
Consultation		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, 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"> • Local Authority Environmental Protection Department • Health and Safety Executive • Public Health England and the Director of Public Health 	✓
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	<p>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 EPR RGN 1 Understanding the meaning of operator.</p>	✓
European Directives		
Applicable directives	<p>All applicable European directives have been considered in the determination of the application.</p>	✓
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 are included in the permit and the operator is required to carry on the permitted activities within the site boundary.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Site condition report	<p>The operator has provided a description of the condition of the site.</p> <p>See key issues section for more information.</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>	✓
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.</p> <ul style="list-style-type: none"> • 23 local wildlife sites and two local nature reserves are located within 2 kilometres of the installation. <p>A full assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the sites.</p> <p>We have not formally consulted on the application. 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>All emissions including, amenity such as odour and noise, may be categorised as environmentally insignificant. There is no history of noise or odour complaints at the site.</p> <p>See key issues section for more information.</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <ul style="list-style-type: none"> - How to comply with your environmental permit: Technical Guidance note EPR 6.10 Additional guidance for the food and drink sector 	✓

Aspect considered	Justification / Detail	Criteria met Yes
	<p>The key measures proposed by the Operator include:</p> <ul style="list-style-type: none"> ➤ No R22 or ammonia is used in the refrigeration systems. ➤ Planned Preventative Maintenance (PPM) is carried out on all refrigeration systems involving regular inspections and all maintenance is undertaken by a qualified contractor. ➤ In the event of a leak from the refrigeration system, planned procedures (detailed in the sites accident management plan) would be implemented to control, contain and repair the leak. ➤ Storage tanks are fitted with high-level alarms to prevent overfilling. ➤ Vehicle separation/ crash protection measures will be installed around the milk and egg tanks to add further protection. ➤ Waste production is minimised by scheduling production and using efficient lines for packing. ➤ Steam and other heated product pipe-work is lagged to reduce energy losses. ➤ Chilled storage areas are kept closed, with rapid closing doors for forklift areas. ➤ To minimise the risk, all raw materials are stored in containers or tanks that are protected either by bunds or, in the case of milk and egg tanks, by their proximity to the blind sump. Any leaks can be pumped directly to the on-site effluent treatment plant. ➤ Spill kits are available on site and staff are trained in their use. ➤ All food waste is transferred off site for use in biogas production and where ever possible packing waste is sent for recycling. ➤ A cleaning system is in place, which is largely manual cleaning. Cleaning of the process machinery and building fabric is undertaken using food grade chemicals. ➤ There are no point source emissions to surface water at the facility. ➤ All discharge to sewer takes place under two trade effluent discharge consents. ➤ All incidents with the potential to cause pollution will be reported, recorded and investigated and any corrective and preventative actions documented. 	

Aspect considered	Justification / Detail	Criteria met Yes
	<p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the Food and Drink Sector Guidance Note EPR 6.10 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant Best Available Techniques Reference Documents (BREFs).</p>	
The permit conditions		
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 energy is used efficiently. ➤ appropriate measures are in place to ensure the efficient use of water. ➤ the appropriate measures are in place to prevent fugitive emissions. <p>See key issues section for more information.</p>	✓
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 in the permit.</p>	✓
Reporting	<p>We have specified reporting in the permit.</p> <p>We have included a requirement for the annual reporting of energy and water usage on the site, to ensure that it is operated efficiently.</p> <p>We made these decisions in accordance with our guidance document 'How to comply with your environmental permit' and SGN EPR 6.10 for the Food and Drink sector.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Emission limits	<p>We have decided that emission limits should not be set for the parameters listed in the permit.</p> <p>See key issues section for more information.</p>	✓
Operator Competence		
Environment management system	<p>An improvement condition (IC5) has been included within the permit that requires the operator to submit an updated Environmental Management System (EMS) to the Environment Agency by 31 March 2016.</p> <p>Following completion of IC5, 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 RGN 5 on Operator Competence.</p>	✓
Relevant convictions	<p>The National Enforcement Database has been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found. The operator satisfies the criteria in RGN 5 on Operator Competence.</p>	✓
Financial provision	<p>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 RGN 5 on Operator Competence.</p>	✓

Annex 2: 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 (PHE), letter received via email on 4 September 2015
Brief summary of issues raised
PHE commented that, initial H1 screening indicated that emissions of oxides of nitrogen may require more detailed assessment. Therefore, it would be prudent to carry out further monitoring to better characterise emissions and/or further screening or modelling of emissions to ensure that health-based air quality standards will not be exceeded at nearby residential locations.
Summary of actions taken or show how this has been covered
<p>As discussed in the key issues section of this document; A1 and A2 are the release points serving two natural gas boilers with a combined thermal input of 5.644MWth. Due to the size of these boilers their emissions are not considered significant - the rating is less than 20MWth and it is considered that emissions to air do not require ELVs to be set. This approach is in line with the EPR Regulations where combustion units burning non-waste based fuels are excluded from the Regulations if they have a thermal input below 20MWth.</p> <p>Based on the above reasoning, no further air quality monitoring was requested and no emission limit values for air emissions were set in the permit.</p>

We also consulted the Local Authority and the Health and Safety Executive, however no response has been received.

The application was also advertised on the Environment Agency's website from 21/08/2015 to 21/09/2015, no comments were received in response to the publication.