Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for Greencore Prepared Meals Ltd Consett operated by Greencore Prepared Meals Limited.

The permit number is EPR/SP3735VQ/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

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

Key issues of the decision

Summary

This facility produces ready prepared meals. The production capacity is approximately 15,000 tonnes a year. A range of pre prepared raw materials are used to cook a variety of meals. The site uses four boilers, three steam generated gas boilers on site and one gas fired hot water boiler. The aggregated thermal input capacity is 7.196MW.

Raw materials are placed in a chiller holding store or taken to the preparation area. The preparation area which contains slicing equipment, a steam oven, a cook quench chill system for cooking pasta and two pasta extruders for preparing sheet pasta. There are 12 steam kettles, each with a capacity of up to 750 litres which are used for cooking sauces, and two small kettles which are used for samples. Once the sauces have been cooked, they are placed into depositors and taken to one of up to eight assembly lines. Plastic food trays are hand filled or filled by depositers, and an in-line indexing conveyer

transports the trays past the sauce depositor which adds the sauce. Trays pass through the heat sealing unit which adds the film. The heat sealing unit operates at up to 225°C. The sealed packs are ink coded. The meals are put into one of nine retorts to be cooked. The retorts reach a maximum temperature of 90-95 °C for ten minutes, but the overall cooking process can take up to two hours. There are temperature limit thermostats in place which operate at 110°C. After cooking the meals are placed into a blast chiller (there are nine on the site). The meals then pass through one of four packing lines where cardboard sleeves are added, and through a metal detector. Finished products are stored in refrigerated despatch chill stores. The site uses an effluent treatment plant to treat process effluent via dissolved air filtration (DAF) technology before discharging to sewer via a trade discharge consent.

Emissions to Water

The operator has prepared an environmental risk assessment which splits the site up into operational areas which they have called zones 1-6. Details on which the zones have been summarised in table 1.

Table 1 Zones and their uses

Zone	Use	Drainage system
1	Car parking	Surface water and foul sewer
2	Raw material intake and chemical store	Surface water
3	Effluent treatment plant	Effluent treatment plant
4	Food despatch and waste storage	Surface water
5	Food production area	Effluent treatment plant
6	Boiler house, engineering workshop, chillers and retort water waste handling	Foul sewer

Based on the risk assessment, we consider the main risks to surface water are from the effluent treatment plant(zone 3), the food intake area (zone 2), the despatch area (zone 4), the chemicals stores in zone 2 and zone 6 and potential spillages of oil in zone 6. The processing area all drains to the effluent treatment plant, and the floors are concrete coated with a lacquer. A small amount of chemicals (stored in containers of less than 25litres) used for cleaning processes are stored in this area. Any spills in this area will drain to the effluent treatment plant and so do not pose a risk to surface water.

Risk from the effluent treatment plant

The effluent treatment plant drains to foul sewer under a trade effluent consent. The effluent treatment plant is situated on hardstanding. Effluent is stored in an underground concrete reception tank before being pumped to the balance tank via a rotary sieve to remove solids, both of which are bunded. The operator has confirmed that the bunds are over 110% of the size of the largest tank, as per our guidance document ‘How to Comply With Your Environmental Permit’. Any spillages within the bunds will be directed to the

underground reception tank. The effluent is then pumped to the DAF tank to be treated.

Two Intermediate Bulk Containers (IBCs) above a bund are used to store the sodium hydroxide and the polyaluminium chloride. A roll on roll off container is used to store the separated sludge and solids before their removal for disposal weekly. In the event of the pump to the balance tank failing, or the reception tank overfilling, the effluent is directed to an underground fibre glass resin interceptor, where it can be stored before being removed in tankers or discharged to sewer. The underground reception tank is double skinned. The operator has confirmed the reception tank will be visually inspected regularly. The operator has confirmed that they are considering ways to test the underground structures for leaks. There are no leak detection measures in place for the underground sump and pipework currently, however there is secondary containment in the form of the adjacent tank and the fact the reception tank is double skinned.

Based on the infrastructure detailed in the application form we are satisfied that the effluent treatment plant does not pose a risk to surface waters.

Risk from the other areas of the site

Zone 2 is a yard area constructed of hard standing that drains to surface water. The raw materials are received in this area, meaning that there is a risk of raw materials entering the surface water drainage system. The risk assessment states that liquid spillages will be contained by spill kits, and the remainder will be intercepted by the storm water bypass interceptor.

There is a chemical store identified in zones 2 and 6. The store in zone 2 is outside the main building, in a locked chemical container which has an internal bund. A spill kit is kept in the container to contain any spills. The chemical store in zone 6 is within the main building, and is a bunded cupboard where printing inks are stored. There is a separate internal store for two 1000litre IBCs which is stored above a bund which is 110% of the volume of one IBC. A chemical spill kit is also kept in this area. Zone 6 is built on a concrete surface and drains to foul water drains, apart from the chilling plant which is built on hard standing. There is a risk of oil spillages in zone 6, but the environmental risk assessment has stated that spill kits will be used to contain these. There is a bunded storage tank for waste oil in zone 6.

The despatch area is hardstanding that drains to surface water. The risk from this area would be the accidental spillage of product. The operator has said in the risk assessment that spills will be contained within the product packaging and that any spills that did enter the surface water system would be caught by the interceptor. Waste is stored in this area, but is contained so unlikely to impact upon surface water. The food waste is stored in a skip in zone 4 which may pose a risk in wet periods, but the operator has stated that this risk will be mitigated by routine inspections and cleaning.

In conclusion, we are satisfied that the operator is minimising the risk to surface water adequately through containment, interceptors and spill kits.

Site Condition Report (SCR)

Samples have been taken of soil but these date from 1990, so do not necessarily represent the condition of the soil now. No groundwater samples have been taken. As part of the duly making process the applicant was made aware of relevant sections of our guidance document on site condition reports, H5. The following section was emailed to the operator:

'The Industrial Emissions Directive (IED) requires that the operator of any IED installation using, producing or releasing "relevant hazardous substances" (RHS) shall, having regarded the possibility that they might cause pollution of soil and groundwater, submit a "baseline report" with its permit application. The application part of the SCR will fulfil this requirement. The definition of IED installations includes EPR Part A(1) and Part A(2) installations and EPR solvent emission activities (most of which are regulated by local authorities). That report must enable a quantified comparison to be made between the baseline and the state of the site at surrender. We will not require all operators using RHS to carry out intrusive investigations to provide baseline data for their application SCR. It is for the operator to assess the risks involved and to decide if they need to carry out intrusive investigation. For example, on greenfield sites the operator may decide that the risk of existing contamination is too low to justify the expense of intrusive investigations. However applicants whose activities involve using, producing or releasing RHS must recognise that if they choose not to carry out intrusive investigations, we will assume the baseline level of contamination to be zero, because the IED requires quantification. Where there is any doubt, we advise that applicants obtain sufficient evidence of pre-existing contamination to facilitate a simple determination at the point of surrender.'

The operator has stated that they intend to undertake groundwater and soil samples by October 2015. They have stated that the findings of the new survey will inform them if periodic sampling is required over the lifetime of the permit.

The SCR identified that the site is on a principal aquifer. The site geology is identified as the Lower Pennine Coal Measures. The SCR states that there have been no pollution incidents within a mile of the site, but our records indicate that there was a pollution incident on site in 2005 where effluent was released. Some site specific boreholes have been undertaken to characterise the land. The site has a history of coal mining and industrial use and historical contamination is present. The site was previously the location of a steel works. Heavy metal and sulphate contamination is highlighted in the SCR as being 'widespread'. Furnace wastes and mining wastes have been found to make up some of the fill materials on site. The historical contamination present is likely to be very different to the materials that will be held on site. As a food and drink processing facility, only holding small amounts of chemicals for equipment maintenance and cleaning, the site is unlikely to release the same type of contaminants used in a steelworks or coal mining to soil or groundwater. The only exception to this could be hydrocarbons such as oil.

As discussed in the emissions to water section, we consider the containment proposed means there is a low likelihood of future pollution. There is

insufficient information provided to make a quantitative assessment of the current state of the soil and groundwater due to the age of the samples and the fact that no groundwater samples have been taken. However, they have provided information that characterises the site and suggests that there is historic contamination. Further samples will be taken within a year of permit issue.

Emissions to Air

The site has 13 emission points to air. Four of these are associated with the boilers, the others will emit water vapour from the retorts. In line with our Guidance document H1 annex F on air emissions, we have not required the operator to undertake detailed air dispersion modelling of the emissions associated with the boilers. We consider that the emissions from boilers of this size and combustion source are unlikely to have a significant negative impact on air quality.

The site uses R404 as a refrigerant. The refrigeration unit will emit some of the refrigerant as a fugitive emission. This will be controlled by regular equipment servicing. The refrigerant emissions will likely be small. The refrigerant used is R404A. The applicant has confirmed they will be complying with the F gas regulations which will control emissions of the refrigerant.

We do not consider that the emissions to air from this site are likely to have a significant negative effect on the environment and we have not required them to undertake monitoring of emissions to air.

Best Available Techniques (BAT) Assessment

Table 2 compares indicative BAT taken from Food and Drink Sector Guidance Note EPR 6.10, and the measures proposed in the supporting information of the application.

Table 2 Comparison of Indicative BAT with key measures proposed by the operator	
Indicative BAT	*Key measures proposed*
Product loss *Process control* • *Continue monitoring and review your performance regularly.* • *Carry out any appropriate measurements listed in Table 3 above such as Temperature measurement*	A product loss audit will be undertaken annually, any product loss will be discussed at daily site meetings Temperature measurement is undertaken in the retorts and blast chill rooms
Effluent treatment *Identify the major risks associated with the effluent treatment plant (ETP) and have procedures in place to minimise them.*	From their risk assessment the operator has identified the risks of release of effluent from the effluent treatment plant into surface water. In the accident management plan, they have outlined the steps they would

	take to minimise the impact.
Point source emissions to water *Use a balancing tank or pond (equalisation or balancing), with a hydraulic retention time of 6 – 12 hours*	The balance tank of the effluent treatment plant has a capacity of 60m^3. The effluent treatment plant has capacity to treat approximately 240m^3 per day. This gives an approximate hourly flow rate of 10m^3/hour. This means that the hydraulic retention time of the balance tank is 6 hours.
Cleaning and Sanitation *spilt material should be swept, shovelled or vacuumed rather than hosed down the drain* *Manual Cleaning-* • *procedures should ensure that hoses are only used after dry clean-up* • *Trigger controls should be used on hand-held hoses and water lances to minimise the use of washdown water*	Solid waste spills will be cleaned up to prevent them entering the drain, all areas are checked visually daily. Food debris is scraped of prior to detergent application. The operator has stated that all hoses have immediate stop controls.

The site will use DAF in the effluent treatment plant. EPR 6.10 indicates that this is an appropriate treatment method.

As a response to a request for further information, the operator has stated that they have evaluated the options for the indicative BAT for efficient use water and raw materials in section 1.3 of EPR6.10. They state that they are following best available practice considering commercial considerations.

Noise

We received a consultation response from the local authority (see annex 2 for more details) which stated that there had been a noise complaint during the consultation period which had been confirmed. They also stated that there were several noise complaints in 2003, but that the council did not confirm those complaints and no action was taken. The applicant originally did not identify noise as an issue, due to the distance from the sensitive receptors. They identified the nearest residential receptor as being approximately 500m away. Following the consultation response, we requested that the operator provide details of why the complaint in October 2014 occurred and how this will be prevented from reoccurring. We also asked them to detail what actions will be undertaken in the event of a noise complaint being received, and to

confirm there was a preventative maintenance plan which will include maintaining equipment to prevent noise issues arising. The operator has confirmed in their response that they did have a noise complaint relating to a steam valve. The part was replaced and the operator has said that they will be looking at a life cycle analysis of this equipment to look at making replacements before the equipment breaks. They have mentioned that they will use our H3 guidance on noise. They also confirmed that there is a planned preventative maintenance plan in place which includes consideration of noise and other aspects which may have an environmental impact. We are satisfied that they have committed to follow our guidance which will ensure they will assess noise and put control measures in place if necessary.

As the operator has stated that a preventative maintenance management plan is in place and that a life cycle analysis is being undertaken of the equipment that led to the complaint, we are satisfied that adequate steps are being taken to prevent a reoccurrence of the noise, and to prevent noise emissions from machinery malfunction. In addition, as the operator has confirmed they will follow our guidance, we are satisfied that any future noise issues that may arise will be controlled. For this reason, we have not requested a noise management plan, but we have included a permit condition that enables one to be requested if noise issues arise at the site.

Annex 1: decision checklist

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

Aspect considered	Justification / Detail	Criteria met Yes
Consultation		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with Regulatory Guidance Note (RGN) 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. The decision was taken in accordance with our guidance.	✓
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 Environmental Permitting Regulations (EPR) RGN 1 Understanding the meaning of operator.	✓
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	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Site condition report	The operator has provided a description of the condition of the site. We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED–	✓

Aspect considered	Justification / Detail	Criteria met Yes
	guidance and templates (H5). See key issues for further information.	
Biodiversity, Heritage, Landscape and Nature Conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat . The site is within 10km of the North Pennine Moors Special Area of Conservation (SAC) and Special Protection Area (SPA). The site is also within 2km of four local wildlife sites, three instances of ancient woodland, and a local nature reserve. 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 features of the sites. Due to the distance from the designated sites to the facility, the only possible pathway for impact would be via emissions to air. The only potential emissions would be those from the boiler and some fugitive emissions from the refrigeration unit. As discussed in the Emissions to Air section of the key issues, these emissions will be controlled by the regular servicing of the refrigeration equipment and compliance with the F Gas regulations. The thermal input capacity of the boilers is below 20MW so the installation is not considered 'relevant' for assessment under the Agency's procedures which cover the Conservation (Natural Habitats &c.) Regulations 1994 (Habitats Regulations). This was determined by referring to the Agency's guidance 'AQTAG014: Guidance on identifying 'relevance' for assessment under the Habitats Regulations for installations with combustion processes.' There are no other emissions to air (apart those discussed above) from the installation, thus no detailed assessment of the effect of the releases from the installation on SACs, SPAs and Ramsar sites is required. We have not formally consulted on the application. The	✓

Aspect considered	Justification / Detail	Criteria met Yes
	decision was taken in accordance with our guidance.	
Environmental Risk Assessment and operating techniques		
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator undertook a screening of the impact of emissions using the H1 tool. However, this has not been assessed as the only point source emissions to air are from the boilers and water vapour. As discussed in the key issues section above, we do not consider that boilers of this size are likely to have a significant negative impact on air quality. A qualitative risk assessment has also been undertaken. The operator's risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment all emissions will be minimal.	✓
Operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. The key operating techniques the operator proposes to use include: • Using spill kits and dry cleaning to prevent food entering the drains • Treating effluent using a DAF effluent treatment plant. • Complying with the F Gas regulations to minimise and prevent fugitive refrigerant emissions. • Those discussed in the BAT section of the key issues above. Other measures considered include: **Cleaning in Place** No automated cleaning in place systems will be used at this installation. The operator has detailed that the site is unsuitable for this method as the site uses solid materials in the products as well as modular process systems making it unsuitable for cleaning in place. They state that as the range of products being produced changes rapidly it would be difficult to automate the site.	✓

Aspect considered	Justification / Detail	Criteria met Yes
	Odour Management Our guidance document 'How to Comply with your Environmental Permit' states that food and drink facilities should have an odour management plan which should be submitted at the time of permit application. The operator has said that they do not anticipate odour being a problem, but has committed to perform a weekly odour check and in the event of a complaint or odour issue arising will reduce the odour emissions at the source if this is possible or introduce abatement. **Conclusion** 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).	
The permit conditions		
Incorporating the application	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. These descriptions are specified in the Operating Techniques table in the permit. We have incorporated the sections of the application and schedule 5 response which detail how the facility will be operated in a way that minimises the risk to the environment.	✓
Reporting	We have specified reporting in the permit. We have asked the operator to report on the water, energy and raw material usage, tonnes of waste sent for off site recovery or disposal and throughput of the facility annually.	✓

Aspect considered	Justification / Detail	Criteria met Yes
	We made these decisions in accordance with our guidance document 'How to comply with your environmental permit'.	
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 RGN 5 on Operator Competence.	✓
Relevant convictions	The National Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in RGN 5 on Operator Competence.	✓
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 RGN 5 on Operator Competence.	✓

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
Health and Safety Executive
Brief summary of issues raised
No comments.
Summary of actions taken or show how this has been covered
None applicable.

Response received from
Durham County Council, Environment, Health and Consumer Protection
Brief summary of issues raised
The response detailed that there were four noise complaints in September 2013 relating to noise from steam escape. However these noise complaints were not confirmed by the Council and no further action was taken until October 2014. The Council stated that a noise complaint was received in October 2014 and confirmed by the investigating officer in a number of residential streets to the north and the east of the site. The County Council requested that a detailed maintenance plan should be developed and implemented.
Summary of actions taken or show how this has been covered
Following this consultation response we requested that the operator provide details about the noise complaint that arose in October 2014, and what measures were being taken to prevent a reoccurrence. We also requested that they confirmed an equipment maintenance plan is in place which includes how equipment is maintained to prevent noise issues. As detailed in the noise section of the key issues above, we are satisfied with the responses to this request for further information and that the operator will take the necessary steps to prevent noise issues arising due to machinery malfunction, and take any control measures necessary if noise issues do arise. We have also included a permit condition requiring the operator to draft and implement a noise management plan if noise issues arise.

No responses were received from members of the public.