

# Permitting decisions

## Bespoke permit

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We have decided to grant the permit for Knottingley Mill operated by ADM Milling Limited.

The permit number is EPR/BP3531RN.

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. The introductory note summarises what the permit covers.

### Main features of the installation

The Schedule 1 activity undertaken at the installation falls under Section 6.8 Part A(1)(d)(ii) - *Treatment and processing of only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day*. The facility produces flour products and in the process is handling and storing raw materials, preparing raw material, size reduction by milling, mixing and blending, packaging and storage and transporting the finished products.

There are five main activities involved in the milling process:

- Handling & storage of raw materials:

Wheat arrives on site either by road or directly transported from the grain terminal and is stored in grain silos on site using fully enclosed, dust-tight pneumatic and mechanical conveying equipment.

- Raw material preparation:

The cleaning of the wheat using dry methods involving cleaning machinery, which effect separation of the wheat by size, shape, density and use of air streams.

- Size reduction by milling:

The grinding of the wheat and subsequent reduction in particle size of its constituents. The wheat is ground between roller mills which progressively tear open the grain, scrape the central white endosperm from the bran skins and then grind the endosperm to a finer particle size, after each grinding stage the particles are graded and separated using a combination of sieving and air separation; the whole process occurs in a dust-tight machinery assembly within the main mill building.

- Mixing and blending:

Blending of flours with each other and the addition of minor ingredients

- Packing and storage:

Packing finished products into paper bags of varying sizes and the filling of 1 tonne tote bags which are then sealed closed for delivery to customer's premises.

- Transporting finished products:

Conveying finished products using fully enclosed, dust-tight pneumatic and mechanical conveying equipment to finished product bins for eventual outloading into tankers for delivery to customer's premises.

The facility converts approximately 102,000 tonnes of wheat (and a small quantity of other ingredients – less than 1%) into flour and associated co-products. However this throughput has recently increased due to production support from the installation to other sites within the company's UK operation. As a result of this increase the installation average daily throughput has increased to over 300 tonnes per day, exceeding the statutory requirement for Part A(1) permit.

## Key issues of the decision

The main environmental aspects relating to the installation operation are energy use and the potential generation and fugitive release of dust. In order to manage and mitigate the energy use, the company has signed the Climate Change Agreement for the Food and Drink sector. The measures to manage the release of dust particles are detailed in the point source and fugitive emissions below.

### Point source emissions

Emissions to air

The applicant has identified 22 emissions points that discharge to atmosphere. These discharge points are fitted with dust abatement equipment (filter bags) to mitigate emissions and satisfy the BAT criteria, and are inspected on a weekly basis with pressure readings using a manometer. Inspection records are kept and replacements are scheduled. In the event of reading higher pressure, the dust bag is replaced. Informal visual checks of the visible air emissions are also undertaken on a weekly basis. In addition, sound maintenance procedures are in place through an automated system.

The Process Contributions do not screen out as insignificant as they are greater than 1% of the LT Standard and 10% of the ST Standard using the reduced emission points (Test 1). However, using the actual background data of 17.418µg/m<sup>3</sup> obtained from DEFRA Background Maps (Grid Square 449500,418500), the LT PEC is less than 70% for both PM<sub>2.5</sub> and PM<sub>10</sub> and does not exceed the EQS for all emission points and those considered 'in scope' for assessment (Test 2).

Whilst the ST PC is greater than 20% of the available 'headroom', it is very unlikely that the short term impacts will extend beyond the installation boundary due to the use of short stacks on site. In any case, detailed assessment of short-term effects is often complex as the maximum process contribution and maximum background concentration may be separated both temporally and spatially, so that the addition of the two "worst case" concentrations together may not represent a likely event. There is also an argument that, given the site is already in operation, the observed background also includes the emission from this site. The background demonstrates that there is not an exceedence of the Air Quality Standard.

The site has been in operations for some time. Whilst there are residential properties within 40m of the site, these are to the south of the site and not in the direction of the prevailing wind. There are no residential

properties or designated sites to the North East of the site. Although the site is within an AQMZ, this is not monitored for particulates.

The site also has an auxiliary boiler used to produce steam for the production of wheatfeed pellets. The thermal input of the boiler is 316 kWth. Due to its reduced size, the monitoring point has been included in table S3.1 with no monitoring requirement. The impacts to air from this boiler are negligible.

#### Emissions to water

The site uses 45m<sup>3</sup> of water/year to condition the wheat prior to the milling process and 75m<sup>3</sup>/year for vehicle washing. No chemicals are used in the process, however 3.5 litres of detergent/year is used to clean the mill floors. Water is discharged from the site via two drains into the River Aire. One of these outlets was controlled under Environmental Permit number EPR/BP3823GC and will be incorporated into this permit. The site monitors both discharge points (COD, oil and grease, pH and suspended solids) every 6 months. The discharge points are fitted with oil interceptors which are regularly cleaned out and inspected.

### **Fugitive emissions**

#### Emissions to air

Two potential sources of fugitive dust emissions to air have been identified. Wheat dust from the raw material intake, tipping and wheat cleaning process, and flour dust from the milling process, flour outloading and packing. These processes take place in enclosed facilities to minimise fugitive emissions and are fitted with dust collectors and filters. The facilities are subject to regular checks and maintenance programmes.

Other potential fugitive emissions have been identified in the form of VOC's from the storage of Liquid Petroleum Gas/diesel, and CO<sub>2</sub> from the product distribution process (vehicle engines). Planned maintenance and servicing, alarms and staff training are in place to minimise and control the impacts.

#### Emissions to land and water

The site has been designed to limit the risk of emissions entering land and/or water. Installation areas that have been identified to pose a risk, are individually bunded and comply with the environmental regulations. The site surfacing is tarmac and concrete and is entirely bunded. The integrity of the site is inspected regularly and maintenance work is carried out accordingly. Procedures to manage spillages are also in place and spill kits are located at relevant points. Staff are trained accordingly.

#### Storage and handling of chemicals

Raw materials and chemicals are stored in appropriate areas. Fuel and chemicals are stored in correct containers and special designated areas and bunded. COSHH product safety data sheets are referred to for details of appropriate methods for storage and handling of chemicals and fuels. Storage facilities are inspected and maintained according to robust procedures. Procedures are in place also for delivery and re-fuelling.

### **General management**

ADM Milling UK have a safety and environmental plan in place for all of their sites, including this one, and adopts the requirements of ISO14001. It includes actions, measures, responsibility and target dates for completion. It includes actions such as environmental audits to be carried out at all sites. ADM Milling UK have employed external consultants to carry out environmental audits at all sites including Knottingley. It includes specific environmental section such as compliance with permit requirements, annual return for packaging reporting compliance.

### **Noise and vibration**

There are robust policies and procedures applied to the site with regards to noise.

All staff receive training regarding environmental noise in their site induction. All staff are aware that excessive noise can be reported to the Technical Services Manager. Internal and external noise monitoring is carried out by specialist personnel. The facility production buildings are constructed with cavity insulation and double glazed windows to minimise noise emissions. All machinery is subject to a comprehensive maintenance programme. The blending blowers are fitted with silencers to reduce noise nuisance.

A noise management plan is in place and is incorporated in table S1.2 Operating techniques.

**Odour**

Odour emissions are likely to be low due to the nature of the process being undertaken. Boundary checks will be carried out at least once per day /shift when the process is operating. The time, location and results of the checks along with weather conditions, wind direction and strength will be recorded. The odour checks will be in the form of olfactory tests. If odour is apparent that could cause a statutory nuisance to nearby residents corrective actions will be raised via the management system. There are no known odour complaints attributed to this site.

At this time we are satisfied that a site specific Odour Management Plan (OMP) is not required beyond the controls detailed in the management system. However, the permit conditions contain a provision for the Environment Agency to request the applicant to produce and implement an OMP should the activities give rise to noise and/or vibration beyond the installation boundary.

## 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	<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.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> <li>- Local authority environment department</li> <li>- Health and Safety Executive</li> <li>- Public Health England</li> </ul> <p>The comments and our responses are summarised in the <a href="#">consultation section</a>.</p>
<b>Operator</b>	
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 legal operator for environmental permits.
<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', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits.</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. 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 and baseline reporting under the Industrial

Aspect considered	Decision
	Emissions Directive.
Biodiversity, heritage, landscape and nature conservation	The application is not within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.
<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 unsatisfactory and required additional Environment Agency assessment.</p> <p>Further details of our assessment are provided in the Key Issues section of this document. The results of our assessment demonstrate no significant impact and the implementation of BAT.</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 have been assessed and deemed not significant	<p>Emissions have been assessed as acceptable and demonstrated they do not exceed the relevant Environmental Standard, and so we agree that the applicant's proposed techniques are BAT for the installation.</p> <p>Further details of this assessment is provided in the key issues section of this document.</p>
<b>Permit conditions</b>	
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.
Improvement programme	<p>Based on the information on the application, we consider that we need to impose an improvement programme.</p> <p>We have imposed an improvement programme to ensure that all three requirements for not setting ELVs are covered.</p>
Emission limits	<p>We have decided that emission limits are not required in the permit.</p> <p>ELVs for flour mills are not required providing that the operator has the following minimum standard of measures in place:</p> <ul style="list-style-type: none"> <li>- Documented performance checks comprising a visual check of emission points (once per shift);</li> <li>- Pressure detection for dust abatement systems (weekly); and</li> <li>- Planned maintenance programme for dust filters to include a visual check shortly after filter replacement to ensure correct installation and operation (integrity of seals etc).</li> </ul> <p>These requirements are set in the permit as process monitoring or as</p>

Aspect considered	Decision
	<p>improvement conditions as appropriate.</p> <p>This decision has been made in accordance with 'Revision to Agency guidance for flour millers – particulate limits/monitoring' dated 10 September 2008.</p>
Monitoring	Monitoring is not required beyond the process monitoring requirements as detailed in the permit.
Reporting	Reporting is not required beyond the performance parameters as detailed in the permit.
<b>Operator competence</b>	
Management system	<p>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.</p> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p>
Relevant convictions	<p>The Case Management System been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.</p>
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

# 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>
Environmental Health Services, Wakefield Council, dated 06/04/2017
<b>Brief summary of issues raised</b>
No objections as long as the BAT requirements are covered.
<b>Summary of actions taken or show how this has been covered</b>
BAT justification has been provided and accepted as suitable.

<b>Response received from</b>
Public Health England (PHE). Dated 19/04/17
<b>Brief summary of issues raised</b>
No significant concerns regarding the risk to the health of the local population from the installation.
<b>Summary of actions taken or show how this has been covered</b>
No action necessary