Cyfoeth Naturiol Cymru
Natural Resources Wales

Natural Resources Wales permitting decisions

Kellogg Company of Great Britain Limited

Wrexham Breakfast Cereals

Contents

Glossary of acronyms and definitions used in this document

AMP – Accident Management Plan

BAT – Best Available Technique(s)

BOD – biological oxygen demand

BAT-AEL – BAT Associated Emission Level

BRef – BAT Reference Note

CIRIA C736 – Containment systems for the prevention of pollution: Secondary, tertiary and other measures for industrial and commercial premises. 2014

CIP – Cleaning-in-place

COD – chemical oxygen demand

CRoW – Countryside and Rights of Way Act 2000

DAA – Directly associated activity

DAF – Dissolved Air Flotation

DD – Decision document

ELV – Emission limit value

EMS – Environmental Management System

EPR – Environmental Permitting (England and Wales) Regulations 2016

ETP – Effluent Treatment Plant

GWP – Global warming potential

HRA – Habitat Regulations Assessment

IBC – Intermediate Bulk Container

IED – Industrial Emissions Directive (2010/75/EU)

LNG – Liquified Natural Gas

NRW – Natural Resources Wales

OPRA – Operator Performance Risk Appraisal

PAC – Polyaluminium chloride

PC – Process Contribution

PEC – Predicted Environmental Concentration

PFOA – perfluorooctanoic acid

PFOS – perfluorooctane sulfonate

PHW – Public Health Wales

PNEC – predicted no-effect concentration

PPS – Public Participation Statement

PR – Public register

RGN – Regulatory Guidance Note

RGS – Regulatory Guidance Series

SAC – Special Area of Conservation

SGN – Sector Guidance Note

SMNR – Sustainable Management of Natural Resources

SPA – Special Protection Area

SSSI – Site of Special Scientific Interest

TGN – Technical Guidance Note

TSS – total suspended solids

WFD – Water Framework Directive

Variation

The application variation number is: EPR/BV8016ID/V008

The applicant /operator is: Kellogg Company of Great Britain Limited

The Installation is located at: Wrexham Breakfast Cereal, Kellogg's, Bryn Lane. Wrexham Industrial Estate Wrexham LL13 9UT

We have decided to issue the variation for Wrexham Breakfast Cereal operated by Kellogg Company of Great Britain Limited.

This normal variation is for the inclusion of 2 new emission points to air on the main process roof (A30 and A31) for dust abatement. A wet dust abatement system to replace the 'Bran Flakes Bleed Dryer D4686', with its own new emission point (A30), has been added to the consolidated permit. Three emission points from existing cyclones on the process (numbered 33,34 and 37) now link to a dry dust cartridge abatement system, with a single emission point (A31) in the environmental permit, by way of this variation.

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.

Key issues of the decision

Receipt of application

The Application was accepted as duly made on the 24 December 2021. This means wit was considered to be in the correct form and contained sufficient information to begin NRW determination, but not that it necessarily contained all the information we would need to complete that determination.

The Applicant made no claim for commercial confidentiality. We have not received information in relation to the Application that appears to be confidential in relation to any party.

Consultation

There was no requirement to carry out a consultation on the application. The installation is not located within an Air Quality Management Area (AQMA).

Operator

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.

The facility

The regulated facility is an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations and the following directly associated activities.

- Section 6.8 A(1)(d)(ii) – Treating and processing materials intended for the production of food products from vegetable raw materials at plant with a finished product production capacity of more than 300 tonnes per day.
- Section 1.1 A(1)(a) – Burning any fuel in an appliance with a rated thermal input of 50 Megawatts or more.
- Section 5.4 A(1)(a)(i) – Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by biological treatment.

Legislation

NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources

All applicable European directives have been considered in the determination of the application.

The site

There is no change to the site plan as a result of this normal variation. The existing plan is included in Schedule 7 of the permit and the operator is required to carry on the permitted activities within the site boundary.

Site condition report

There is no change to the installation boundary, so the existing site condition report is still valid.

Biodiversity, Heritage, Landscape and Nature Conservation

A full assessment of the application and its potential to affect the sites listed below has been considered as part of our determination process.

Screening of the local area shows the following designated sites within the relevant distances:

European Protected Sites (within 10km)
Ramsar - Midland Meres & Mosses Phase 2 - 4km away
SAC - River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid - 3.6km away
SAC - Johnstown Newt Sites - 8.2km away

There are no designated SSSIs within a 2km radius of the site. Wildlife sites (within 2km)

Wrexham Industrial Estate – three separate areas the nearest being 0.6km away, others 0.8km and 1km away
Cefn park 1.7km away

Ancient woodland Six areas have been identified within a 2km radius, the nearest being 1km away.

There is expected to be a net reduction in particulates emitted from the site from the addition of the dust abatement systems added to the process. It is concluded that this normal variation to the environmental permit is not likely to have a significant effect on the designated sites identified and listed above. There was no Form 1 completed due to the expected net reduction in particulates.

Environmental Risk Assessment

Air

This section of the decision document deals primarily with the dispersion modelling of emissions to air from the stack and its impact on local air quality.

The Applicant has assessed the Installation's potential emissions to air against the relevant air quality standards, and the potential impact upon human health. These assessments predict the potential effects on local air quality from the Installation's stack emission.

The air impact assessments, and the dispersion modelling has been based on the Installation operating continuously at the relevant long-term or short-term emission limit values, i.e. the maximum permitted emission rate.

We are in agreement with this approach. The assumptions underpinning the model have been checked and are reasonably precautionary. The way in which the Applicant

used dispersion models, its selection of input data, use of background data and the assumptions it made have been reviewed by Natural Resources Wales. The output from the model has then been used to inform further assessment of health impacts.

The air emissions risk assessment for the new dust abatement considered particulate matter (standards for particulate matter (PM) with an aerodynamic diameter <10µm (PM10) and <2.5µm (PM2.5). From the dispersion modelling any potential air quality impacts against the relevant guidance and standards concluded that the variation would not lead to exceedances of the standards.

Emission limits

We have decided that emission limits should be set for the parameters listed in the permit.

The air quality modelling uses the emission limit values (ELVs) in the existing permit for total particulate matter (TPM) of 50mg/nm^3 for the assessment. It has been determined that the new emission points A30 and A31 will also have an ELV of 50mg/nm^3 for dust and is included in the consolidated permit. There is also associated monitoring and reporting as a result.

A BAT assessment has been undertaken and cyclones are a recognised technology within the BAT reference document for the Food, Drink and Milk Industries. It is considered that the dust abatement installed on the 3 cyclones (33,34,37) on the process will further reduce emissions to air namely particulate matter.

Water

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent pollution of ground and surface water.

The operator has acknowledged that there will be a marginal increase in water consumption through the use of one of the dust abatement systems (Rotoclone). A

BAT assessment was undertaken in the selection of this particular technology for use on the process.

There is no change to the existing site drainage system as a result of this variation.

Soil

There is no change to the existing installation boundary as a result of this variation.

Odour

Odour is not considered to be an issue with this variation to include dust abatement. The permit conditions under 3.3 concerning odour management is present within the consolidated permit and sufficiently protective.

Noise

There is a noise management plan in place which the operator has committed to review to include the new abatement systems. The operator has also committed to assess, through noise monitoring the potential for off-site noise.

It is considered that the dust abatement is BAT and the operator has indicated on email (further information e-mailed 20/12/21) the additional noise controls on the abatement:

- A30 (EP123 on drawing reference W-bl-303r17) – Bran Flakes Dryer Inline Attenuator on Discharge Installed.
- A31 (EP124 on drawing reference W-bl-303r17) – Seven Sisters Optiflo Unit – Integral Acoustic Enclosure Installed.

Once the dust abatement is commissioned any findings following noise monitoring should be incorporated within the noise management plan.

We consider that the activities carried out at the site have the potential to cause noise and/or vibration that might cause pollution outside the site, so an improvement condition has been added to the permit (please see section titled ‘improvement conditions’ below).

Fugitive emissions

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise fugitive emissions and to prevent pollution from fugitive emissions.

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. The methods are in accordance with the technical guidance for monitoring of stack emissions to air. Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

Reporting

We have specified reporting in the environmental permit. Reporting will remain the same with the addition of the annual monitoring for Total Particulates on the new emission points A30 and A31. The reporting forms have been updated and these can also be agreed with NRW in line with the associated permit condition.

We have specified the reporting requirements in Schedule 4 of the permit. We are satisfied that the reporting frequency is appropriate for this type of installation.

Operating techniques

We have reviewed the techniques used by the Operator and have compared these with the relevant guidance notes, those set out in the BAT Conclusions for the Food Drink and Milk Industries and EPR 1.01 "How to comply with your environmental Permit' and concluded that the operating techniques conform with BAT.

The permit conditions

Updating permit conditions during consolidation

We have updated previous permit conditions to those in the new generic permit template as part of permit consolidation. The new conditions have the same meaning as those in the previous permit(s).

Raw materials

The limits and controls on the use of raw materials and fuels remain unchanged in the permit.

Waste types

The operator has not applied for the acceptance of any wastes or vary this aspect of the permit.

Improvement conditions

Based on the information on the application, we consider that we need to impose an improvement condition. Details of the improvement conditions used can be found at Annex 1.

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.

Environment management system

There is an existing environment management system (EMS) for the Kellogg's Wrexham plant has been in place since 1991. The EMS follows the principles of ISO 14001 but since 2018 there was a decision to no longer be accredited to ISO 14001 and an in-house standard is used instead. The main environmental priorities outlined

in the variation application are incorporated into the operating techniques by reference of the application ‘Document Reference 1’.

OPRA

The OPRA score at permit issue is 98

ANNEX 1: Improvement Conditions

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC11	Following successful commissioning and establishment of routine steady operation, the Operator shall undertake noise monitoring at the nearest local receptors. This shall include: • A full noise monitoring survey and assessment meeting the BS4142:2014 standard • 1/3rd octave and narrow band (FFT) measurements to identify any tonal elements or low frequency noise • Reference to the Welsh Government Noise and soundscape action plan 2018-2023. Upon completion of the work, a written report shall be submitted to Natural Resources Wales for approval. Operator to review the noise management plant and update where necessary incorporating the changes to emissions to air and the new equipment with associated noise controls.	Within 9 months of commissioning

Published by:
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

0300 065 3000 (Mon-Fri, 8am - 6pm)

enquiries@naturalresourceswales.gov.uk
www.naturalresourceswales.gov.uk

© Natural Resources Wales

All rights reserved. This document may be reproduced with prior permission of
Natural Resources Wales