

Natural Resources Wales permitting decisions

Soft Drinks Division – Cardiff Decision Document

Contents

Variation	4
The variation number is: EPR/BX8289IW/V004 (PAN-012974).....	4
The operator is: Princes Limited	4
The Installation is located at: Soft Drinks Site, Portmanmoor Road, East Moors, Cardiff, CF24 5HB	4
Purpose of this document	6
Key issues of the decision	7
Receipt of application	7
Confidential information	7
Identifying confidential information	7
Consultation	7
Operator	8
The facility	8
Directly associated activities	8
• Wastes storage and handling	8
• Process effluent collection and discharge	8
• Surface water drainage	8
• Process effluent collection and storage.....	8
Legislation	9
The site	9
Site condition report	9
Biodiversity, Heritage, Landscape and Nature Conservation	9
SAC, SPA and Ramsar	10
SSSI	10
Environmental Risk Assessment	11
Air.....	11
Impact Human Health	11
Emissions of hydrogen peroxide	12
Emissions of carbon monoxide	12
Oxides of Nitrogen	12
Water	13
Soil	14
Odour	15
Noise.....	15
Fugitive emissions.....	15

Monitoring	15
Reporting	16
Operating techniques.....	17
Best available techniques and BRef Review	17
Medium combustion plant	17
The permit conditions	18
Updating permit conditions during consolidation	18
Raw materials	18
Incorporating the application	19
Operator Competence	19
Environment management system.....	19
OPRA.....	19
ANNEX 1: Consultation Responses.....	20
A) Advertising and Consultation on the Application.....	20
1) Consultation Responses from Statutory and Non-Statutory Bodies.....	20
2) Consultation Responses from Members of the Public and Community Organisations.....	20
a) Representations from Local MP, Assembly Member (AM), Councillors and Parish / Town / Community Councils	20
b) Representations from Community and Other Organisations.....	21
c) Representations from Individual Members of the Public	21

Variation

The variation number is: EPR/BX8289IW/V004 (PAN-012974)

The operator is: Princes Limited

The Installation is located at: Soft Drinks Site, Portmanmoor Road, East Moors, Cardiff, CF24 5HB

We have decided to issue the variation for Soft Drinks Division – Cardiff operated by Princes Limited.

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.

This is a substantial variation to the permit for the site Soft Drinks Site-Cardiff (EPR/BX8289IW) to expand and install an additional production line, that will increase the production capacity from 26,400 litres per hour to 121,600 litres per hour (or 3,094 tonnes per day). Other changes to the site as a result of the expansion include:

- Addition of a new 4.02 MWth input natural gas fuelled boiler subject to the medium combustion plant directive. Also, at the request of the operator, we are adding future compliance for monitoring and emission limit values for the existing 4.02MWth gas fuelled boiler. The operator will need comply with the new limits and monitoring from the 01/01/2030 or otherwise notified in writing by Natural Resources Wales.
- Change to the installation boundary to include additional land as part of a site extension.
- Change in the location point of the discharge to sewer.
- Addition of point source emissions to air of steam from the filler lines listed as emission points A3 to A9.
- Add point source emissions to air for hydrogen peroxide from packaging sterilisation to be listed as points A10 to A16.

In addition to the changes proposed by the operator we have also assessed a regulation 61(1) response for the operator to demonstrate compliance with the latest BAT conclusion and integrated these into the permit. The review of the operator's response to the relevant BAT conclusions are detailed in the document BRef Review Decision Document available on the public register

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

Confidential information

No claim for commercial or industrial confidentiality has 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

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.

A copy of the Application and all other documents relevant to our determination (see below) are available for the public to view. Anyone wishing to see these documents could arrange for copies to be made.

We sent copies of the Application to the following bodies, which includes those with whom we have “Working Together Agreements”:

- **DCWW consultation and permitting**
- **Public Health Wales**
- **Cardiff Council Planning**
- **Cardiff Council Noise and air pollution**
- **Foods Standards Agency**

These are bodies whose expertise, democratic accountability and/or local knowledge make it appropriate for us to seek their views directly.

The consultation started on **15/11/2021** and ended on **13/12/2021**.

Further details along with a summary of consultation comments and our response to the representations we received can be found in Annex 1. We have taken all relevant representations into consideration in reaching our determination.

We have carried out a consultation on our draft decision. This consultation will began on **11/07/2022** and ended on **08/08/2022**

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.

- S6.8 A1(d)(ii) – Treatment and processing, other than exclusively packaging of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed (where the weight of the finished product excludes packaging) – only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day

Directly associated activities

- Wastes storage and handling
- Process effluent collection and discharge
- Surface water drainage
- Process effluent collection and storage

The following activity is subject to schedule 25A

- New gas powered boiler, 4.02 MWth thermal input
- Existing gas powered boiler 4.02 MWth thermal input (compliance from 01/01/2030 unless the operator is otherwise notified in writing by NRW)

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

The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility including discharge points to sewer and point source emissions to air.

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 – guidance and templates (H5).

The Operator has submitted a revised site condition report (ECL.046.01.01/SCR) to Natural Resources Wales in support of their permit variation application. This provides a summary of the environmental conditions present at the installation accounting for the change in the Environmental Permit boundary. A site investigation comprising geotechnical and contamination analysis was undertaken in 2017. The SCR also lists potentially polluting substances stored on-site and the protection measures in place to prevent pollution incidents. The potentially polluting substances include fruit juice concentrate, process effluent, caustic and glycol. According to the Operator there have been no recorded pollution incidents at the installation.

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 .

A full assessment of the application and its potential to affect the sites/species/habitat has been carried out as part of the permitting process. We consider that the application will not affect the features of the site/species/habitat.

SAC, SPA and Ramsar

The main emissions with an environmental quality standard that could impact the designated site was oxides of nitrogen (NO_x expressed as NO₂). As the emission in question were due to the 4.02 MWth boiler, we used the appropriate risk screening distance of 5 km for a medium combustion plant as per the current guidance.

The following sites were identified within the 5 km risk screening distance:

- Severn Estuary (Wales) SAC (UK0013030)
- Severn Estuary (Wales) SPA (UK9015022)
- Severn Estuary (Wales) Ramsar (UK11081)

A habitats regulatory assessment OGN 200 form 1 was done for the relevant sites identified within the 5 km risk screening distance. The OGN 200 form 1 concluded that the proposal would not either alone or in combination, lead to a degradation of the designated features of the site. For more details please see the OGN 200 form 1 assessment available on the public register.

We send a copy of the OGN 200 form 1 HRA to the local environment team for consultation. We have received a form 2 which outlined the environment team's agreement with the conclusions of the form 1 HRA.

SSSI

An Appendix 4 has been completed for the following SSSI located within 2 km of the site:

- Severn Estuary (Wales) SSSI

An Appendix 4 Form was completed to assess the potential of this permission to effect the SSSIs. This is available to view on the public register. The assessment concluded the facility is not likely to damage any of the designated features of the SSSIs.

A copy of the appendix 4 was sent to the local environment team for consultation. We did not receive a response within the 28 statutory deadline. We have taken no response as no concerns.

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.

Impact Human Health

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 modelling specialists to establish the robustness of the Applicant's air impact assessment. The output from the model has then been used to inform further assessment of health impacts.

The applicant has calculated process contributions (PC) and predicted environmental concentrations (PEC) at locations within the immediate vicinity and all identified sensitive receptor locations. The modelling results for NO_x will be discussed separately below.

Emissions of hydrogen peroxide

The applicant performed a H1 assessment of the impact of hydrogen peroxide (H_2O_2) on the nearest sensitive receptors. In the absence of an environment assessment level and for hydrogen peroxide a value of $280 \mu\text{g}/\text{m}^3$ (derived from the EH40 value based on specialists advice) was used for the EAL.

The short term process contribution (PC) was 0.075% ($0.211 \mu\text{g}/\text{m}^3$) of the EAL and the long term PC was 1.98% ($5.55 \mu\text{g}/\text{m}^3$) of the long term EAL. As the short term PC is less than 1% of EAL and the long term is less than 10% of the EAL the emissions of hydrogen peroxide from the site can be screened out as insignificant.

Emissions of carbon monoxide

Emission of carbon monoxide (CO) were assessed by the applicant in their air dispersion modelling report. The maximum process contribution of the short term 8 hour average was $37.8 \mu\text{g}/\text{m}^3$ which was approximately 0.38% of the short term air quality standard (AQS) of $10000 \mu\text{g}/\text{m}^3$. As this is less than 10% of the short term AQS the emissions of CO can be screened out as insignificant emission.

Oxides of Nitrogen

Emission of oxides of nitrogen expressed as NO_2 was assessed by the applicant in their air dispersion modelling report including the impacts on the nearest residential receptors. The maximum process contribution (PC) for short term (1 hour) was 1.25% ($2.51 \mu\text{g}/\text{m}^3$) of the AQS of $400 \mu\text{g}/\text{m}^3$ and the maximum long term PC (annual) was 0.79% ($0.316 \mu\text{g}/\text{m}^3$) of the long term AQS ($40 \mu\text{g}/\text{m}^3$). As the short term PC is less than 10% of the short term AQS and the long term PC is less than 1 % of the long term AQS, the emissions of NO_2 screen out as insignificant and do not need to be assessed further.

Emission limits

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

We have decided that emission limits should be set for the parameters listed in the permit under emission point A2. Emissions Limit Values (ELVs) are in line with those set out in the MCP Directive.

Emission Point	Substance	ELV
A2 No. 2 boiler – 4.02 MWth input natural gas fuelled boiler	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	100 mg/Nm ³

It is considered that the ELVs/ equivalent parameters or technical measures described above will ensure that significant pollution of the environment is prevented and a high level of protection for the environment secured.

No other limits set on any of the other emission points as a result of this variation or the BRef Review.

At the operator's request we have added future emission limits and monitoring requirements for the existing MCP (emission point A1) into the permit. The existing MCP is a natural gas boiler, 4.02 MWth input. Emission Limit Values (ELVs) and monitoring is not required until 1st January 2030 unless otherwise requested in writing by Natural Resources Wales.

Emission Point	Substance	ELV
A1 No. 1 boiler – 4.02 MWth input natural gas fuelled boiler	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	250 mg/Nm ³ from 01/01/2030

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.

There is no discharge to surface water except clean rain water run off. All process effluent is discharged to sewer under a trade effluent consent.

The emissions of cadmium and mercury to sewer will increase as a result of the increase rate of discharge to sewer. The applicant has done a H1 assessment of the of the new rate and concentration of mercury and cadmium discharge. The concentration of cadmium and mercury to sewer are less than the environmental quality standard (EQS) limit for maximum allowable concentration and cadmium screens out as less than the EQS for annual average. As screens out no further assessment was required.

The assessment and the EQS values used conform to the current Environmental agency's guidance on H1 assessments for water discharge to estuaries and costal water. Therefore we are satisfied that the new limits screen out as insignificant and will not cause an environmental impact as a result of this change.

Emission limits

We have decided that emission limits should be set for the parameters listed in the permit. It is considered that the numeric limits described below will prevent significant deterioration of receiving waters.

The concentration of cadmium to sewer have changed from (0.01 mg/l and 0.0051 µg/l) and mercury has changed from (0.1 µg/l to 0.01795µg/l) with the annual limit for cadmium changing from 0.5 g/year to 2.25 g/year and mercury changing from 1.5 g/yr to 7.86 g/year. These limits have been assessed using Environmental agency's guidance on H1 assessments for water discharge and have screened out as insignificant.

There are no other limits to discharge to sewer.

Soil

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 – guidance and templates (H5).

Odour

The main risk of odour is from the 30,000 litre waste water storage tank and during periodic removal of waste water from the site. The operator has addressed this in their revised risk assessment. The risk of odour was assessed as being low and we consider that the Applicant's proposals represent the appropriate measures to prevent/minimise odour from the permitted activities

Noise

The applicant had assess the potential for noise in their environmental risk assessment as a result of the changes to the site including any impact from increase traffic. The risk assessment deemed the risk of noise is low and the site has not received any noise complaints.

We are satisfied that the applicant proposal minimise/prevents impact of noise and the risk of noise impact from the proposal to the nearest residential receptor is low.

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 Schedule 3 of the permit using the methods and to the frequencies specified in those tables. These monitoring requirements have been imposed in order to demonstrate compliance with the emissions limits in the permit, as per the ELV and monitoring frequency requirements specified within the MCP Directive.

For emissions to air, the methods for continuous and periodic monitoring are in accordance with the Environment Agency's Guidance for monitoring stack emissions: low risk MCPs and specified generators.

Based on the information in the application and the requirements set in the conditions of the permit, we are satisfied that the operator's techniques, personnel and equipment employed by the Operator have either MCERTS certification or MCERTS accreditation

as appropriate.

Reporting

We have specified reporting in the permit.

We made these decisions in accordance with medium combustion plant directive.

Operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.

Best available techniques and BRef Review

The site was subject to a best available techniques References (BRef) review following the publication of the latest best available techniques (BAT) for food milk and drink published on the A schedule 61(1) notice was sent on the 28/04/2020 and a response was received 11/11/2020. The substantial variation application also contained additional information on compliance with the BAT

These techniques have been incorporated into the permit under Table s1.2. The techniques have been reviewed and are discussed in more detail in a separate decision document on the BRef review (EPR/BX8289IW BRef Review Decision Document) available on the public register.

Medium combustion plant

We have reviewed the operating techniques used by the Operator and compared these with the relevant guidance notes. The relevant guidance notes for this plant are:

- Environment Agency's Guidance for monitoring stack emissions: low risk MCPs and specified generators.

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.

The operator has agreed that the new conditions are acceptable.

Raw materials

We have not specified limits and controls on the use of raw materials and fuels.

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 (Table S1.2) in the 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.

OPRA

The OPRA score at permit issue is 36

ANNEX 1: Consultation Responses

A) Advertising and Consultation on the Application

The Application has been advertised and consulted upon in accordance with Natural Resources Wales Public Participation Statement. The way in which this has been carried out along with the results of our consultation and how we have taken consultation responses into account in reaching our draft decision is summarised in this Annex. Copies of all consultation responses have been placed on Natural Resources Wales public register.

1) Consultation Responses from Statutory and Non-Statutory Bodies

Response Received from Public health Wales	
Brief summary of issues raised:	Summary of action taken / how this has been covered
The assessment has included a consideration of other emission points local to the site, however it's not clear if these include the Viridor Energy from Waste plant (or explanation why this would be excluded from the assessment), the regulator should seek clarification on the determination of the background air quality	Emissions from other permitted facilities are captured in background generally after 2-3 years. As Viridor was issued in 2014 it would have been captured in the background during the air dispersion modelling assessment for both human health and impact on protected sites.

2) Consultation Responses from Members of the Public and Community Organisations

a) Representations from Local MP, Assembly Member (AM), Councillors and Parish / Town / Community Councils

Response Received from	
Brief summary of issues raised:	Summary of action taken / how this has been covered

None	N/A
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b) Representations from Community and Other Organisations

Response Received from	
Brief summary of issues raised:	Summary of action taken / how this has been covered
None	N/A

c) Representations from Individual Members of the Public

Response Received from	
Brief summary of issues raised:	Summary of action taken / how this has been covered
None	N/A