Permitting Decisions- Variation

We have decided to grant the variation for Ellgia Scunthorpe operated by Ellgia Limited.

The variation number is EPR/WP3397FZ/C007.

The permit was issued on 11/03/2024.

The variation is for the consolidation of three waste regime permits.

- EPR/WP3397FZ (EAWML43094).
- EPR/LP3990CY (EAWML 43465); and
- EPR/YP3090CV (EAWML 43719).

These three permits have been consolidated under permit number EPR/WP3397FZ. The variation increases the throughput of refuse derived fuel (RDF) and solid recovered fuel (SRF) production. The increased throughput classifies the RDF & SRF process lines under The Environmental Permitting (England and Wales) Regulations 2016 (EPR) S5.4 Part A (1) a(iii) RDF for disposal and production of RDF and SRF for recovery will be regulated under EPR S5.4 Part A (1) b(ii). The variation also increases the site boundary.

The site has five medium combustion plant including a 1 MWth biomass boiler which operates under ERP S5.1 Part B and burns Grade A waste wood. The installation also uses 4 diesel fired generators >1 MWth input.

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 considerations section to show how the main 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 and the variation notice.

Key issues of the decision

The key issues of the decision were the application of air quality emission limits to a waste site with existing MCP, becoming an installation.

The site had an existing local authority (LA) EPR Schedule 1, Section 5.1, Part B permit for the 1 MW net rated thermal input biomass boiler. As the site is becoming an installation the biomass boiler now falls under the regulation of the Environment Agency. The emission limits the boiler was permitted to operate under were:

Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	400 mg/m^3
Dust (PM10 & PM2.5)	60 mg/m^3
Total Volatile Organic Compounds (TVOC)	20 mg/m^3
Carbon Monoxide (CO)	250 mg/m^3

These limits will remain on the new installation permit until the biomass boiler is required to meet the medium combustion plant directive (MCPD) limits for existing MCP on an installation from the 1st of January 2030.

The site also has five generators, four of which each have a net rated thermal input over 1 MWth. The applicant submitted stack monitoring data and detailed air dispersion modelling using Lakes Environmental ISC-AERMOD Version 11.2.0 software. The modelling was based on emissions of NO_x from the MCP stacks at a rate of 250 mg/Nm^3. At these levels, the applicant's air quality report stated that the emissions would not pose a significant impact to human health or local ecological sites. The Environment Agency have accepted the findings of the report, concluding that the maximum predicted Process Contributions (PCs) were insignificant and Predicted Environmental Concentrations (PECs) will not exceed any of the Environmental Standards for human health and habitats.

The potential effects on human health and relevant ecological sites have been screened as 'not significant'. Therefore, the applicant's modelled NO_x emission rate has been accepted as BAT for the installation. The applicant's stack monitoring data showed that some of the generators were emitting levels of NO_x above the modelled emission rate, so an improvement condition has been added to the permit requiring the operator to propose a strategy for all generators used at the installation to meet the emission limit in the permit.

The generators will also need to meet all relevant MCPD emission limits by the 1st of January 2030.

Decision considerations

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.

The decision was taken in accordance with our guidance on confidentiality.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

- Health and Safety Executive (HSE)
- UK Health Security Agency (UKHSA)
- Local Authority Environmental Health

The comments and our responses are summarised in the consultation responses section.

The regulated facility

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 RGN2 ‘Defining the scope of the installation’, Appendix 1 of RGN 2 ‘Interpretation of Schedule 1’.

The operator has provided the grid reference for the emission points from the medium combustion plants.

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.

The site

The operator has provided plans which we consider to be satisfactory.

These show the extent of the site of the facility including the discharge points.

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.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances, we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

Emissions to Air

The combustion process at the installation is not considered ‘relevant’ for assessment under the Agency’s procedures which cover the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations) and/or the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act (CRoW) 2000). 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.’ Thus, no detailed assessment of the effect of the releases from the installation's combustion processes on SACs, SPAs and Ramsar sites is required.

Fugitive Emissions from fire

The activities associated with this application, include the storage and treatment of potentially combustible wastes. In order to manage the risk from fires on site and any fugitive emissions that may occur as a result, namely smoke, direct damage from burning and emissions of firewater run-off, a fire prevention plan was required. We assessed this fire prevention plan and found it to be satisfactory in line with our guidance on Fire prevention plans: environmental

permits - GOV.UK (www.gov.uk). The operator of the site must adhere to the measures outlined in this plan as part of their permit conditions. It contains sufficient measures to prevent, suppress, contain and extinguish fires on site (the plan must aim to extinguish any fire within 4 hours) as well as adequate measures to contain the volume of firewater predicted to be required if a fire were to occur. We therefore conclude that the risks from fires occurring on site are not likely to damage any of the features of the SAC, SPA or Ramsar.

Fugitive emissions of dust

The non-hazardous waste treatment activities associated with the proposed permission may generate dust and debris, however in line with our guidance on controlling and monitoring emissions for environmental permits a dust emissions management plan (DEMP) has been produced. We have assessed the applicant's DEMP and found it to be suitable to prevent significant emissions of dust from leaving the site boundary and as a result causing any damage to the SAC, SPA or Ramsar.

We consider that the application will not affect any site of nature conservation, landscape, and heritage, and/or protected species or habitats identified.

The decision was taken in accordance with our guidance.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator's risk assessment is satisfactory.

Operating techniques

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

General operating techniques

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.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Operating techniques for emissions that screen out as insignificant.

Emissions of NO_x, NO_2, PM10, PM2.5, Total VOC and CO have been screened out as insignificant, and so we agree that the applicant's proposed techniques are Best Available Techniques (BAT) for the installation.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

National Air Pollution Control Programme

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Fire prevention plan

We have assessed the fire prevention plan and are satisfied that it meets the measures and objectives set out in the Fire Prevention Plan guidance.

We have approved the fire prevention plan as we consider it to be appropriate measures based on information available to us at the current time. The applicant should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The plan has been incorporated into the operating techniques S1.2.

Dust management

We have reviewed the dust and emission management plan in accordance with our guidance on emissions management plans for dust.

We consider that the dust and emission management plan is satisfactory, and we approve this plan.

We have approved the dust and emission management plan as we consider it to be appropriate measures based on information available to us at the current time. The applicant should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The applicant should keep the plans under constant review and revise them annually or if necessary, sooner if there have been complaints arising from

operations on site or if circumstances change. This is in accordance with our guidance ‘Control and monitor emissions for your environmental permit.

The plan has been incorporated into the operating techniques S1.2.

Updating permit conditions during consolidation

We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permits.

Raw materials

We have specified limits and controls on the use of raw materials and fuels.

Waste types

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

We are satisfied that the operator can accept these wastes for the following reasons:

- they are suitable for the proposed activities
- the proposed infrastructure is appropriate; and
- the environmental risk assessment is acceptable.

We have excluded the following wastes for the following reasons;

The following waste codes were excluded as they are unsuitable for RDF & SRF production:

10 11 03	waste glass-based fibrous materials
15 01 07	glass packaging
19 05 02	non-composted fraction of animal and vegetable waste
20 02 01	biodegradable waste

The following dusty waste codes were excluded as they increase the risk of fugitive emissions on site:

01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07
10 11 05	particulates and dust
10 12 03	particulates and dust

10 13 06	particulates and dust (except 10 13 12 and 10 13 13)

The following waste codes were excluded to prevent a build up of sludges and liquids, which could increase the risk of mud on the site:

02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 05	de-inking sludges from paper recycling
10 01 23	aqueous sludges from boiler cleansing other than those mentioned in 10 01 22
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	other sludges and filter cakes
10 12 05	sludges and filter cakes from gas treatment
10 13 07	sludges and filter cakes from gas treatment
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 12	aqueous rinsing liquids other than those mentioned in 11 01 11

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

We have included an improvement programme to ensure that the MCP on site can all comply with the ELVs set in the permit. The operator is required to submit a report that contains:

- Proposals for meeting the NO_x ELVs set in Table S3.1
- A demonstration that proposals are BAT
- Timescale of implementation of proposals

Emission limits

Emission Limit Values (ELVs) have been added for the following substances:

A1 - Biomass boiler

- NO_x - 500 mg/m^3
- Dust - 60 mg/m^3
- TVOC - 20 mg/m^3
- CO - 250 mg/m^3

A2 to A5 - Four diesel generators

- NO_x – 250 mg/m^3

We have included these limits based on the exiting limits in the operators Part B local authority permit and the modelled air emissions report submitted by the applicant during determination.

Monitoring

We have decided that monitoring should be added for the following parameters, using the methods detailed and to the frequencies specified:

Monitoring of point source emissions to air;

Source	Parameter	Reference period	Monitoring frequency	Monitoring standard or method
MCP Artem Biomass Boiler 1 MWth fuelled on Grade A waste wood	Dark smoke	Daily when in operation	Daily when in operation	Ringlemann Chart Shade 1. BS 2742:2009
	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Periodic	Annual extractive	MCERTS EN 14792
	Dust (PM_{10} & $PM_{2.5}$)	Periodic	Annual extractive	MCERTS EN 13284-1
	Total Volatile Organic Compounds (TVOC)	Periodic	Annual extractive	MCERTS EN 12619
	Carbon Monoxide (CO)	Periodic	Annual extractive	MCERTS EN 15058
MCP FG Wilson 1.1 MWth generator fuelled on diesel. Asset no. P193	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Periodic	Every 3 years from date of acceptance of first monitoring measurements.	MCERTS BS EN 14792
	Carbon Monoxide (CO)	Periodic	Every 3 years from date of acceptance of first monitoring measurements.	MCERTS BS EN 15058
MCP	Oxides of Nitrogen (NO and NO_2	Periodic	Every 3 years from date of acceptance of first	MCERTS BS EN 14792

Source	Parameter	Reference period	Monitoring frequency	Monitoring standard or method
FG Wilson 1 MWth generator fuelled on diesel. Asset no. P194	expressed as NO_2)		monitoring measurements.	
	Carbon Monoxide (CO)	Periodic	Every 3 years from date of acceptance of first monitoring measurements.	MCERTS BS EN 15058
MCP FG Wilson 1 MWth generator fuelled on diesel. Asset no. P183	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Periodic	Every 3 years from date of acceptance of first monitoring measurements.	MCERTS BS EN 14792
	Carbon Monoxide (CO)	Periodic	Every 3 years from date of acceptance of first monitoring measurements.	MCERTS BS EN 15058
MCP FG Wilson 1 MWth generator fuelled on diesel. Asset no. P182	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Periodic	Every 3 years from date of acceptance of first monitoring measurements.	MCERTS BS EN 14792
	Carbon Monoxide (CO)	Periodic	Every 3 years from date of acceptance of first monitoring measurements.	MCERTS BS EN 15058

Monitoring of point source emissions to water;

Source	Parameter	Reference period	Monitoring frequency	Monitoring standard or method
Uncontaminated surface water via interceptor and attenuation pond.	Oil or grease	-	Monthly	Visual check

These monitoring requirements have been included in order to ensure that Environmental Standards (ESs) are not exceeded. We made these decisions in accordance with Industrial Emissions Directive (IED) 2010, Monitoring stack emissions: techniques and standards for periodic monitoring and Waste treatment best available techniques (BAT) 2018.

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 added reporting in the permit for the following parameters:

- Emissions to air from emission points A1 to A5
- Emissions to water (other than sewer) from emission point W1
- Total annual RDF and SRF produced
- Water, energy and fuel usage

We made these decisions in accordance with RGN 2: Understanding the meaning of regulated facility, The Industrial Emissions Directive (IED), Environmental permitting technical guidance PG5/1(21) and The Medium Combustion Plant Directive.

Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

We only review a summary of the management system during determination. The applicant submitted their full management system. We have therefore only reviewed the summary points.

A full review of the management system is undertaken during compliance checks.

Technical competence

Technical competence is required for activities permitted.

The operator is a member of the CIWM & WAMITAB scheme.

We are satisfied that the operator is technically competent.

Previous performance

We have assessed operator competence. There is no known reason to consider the applicant will not comply with the permit conditions.

We have checked our systems to ensure that all relevant convictions have been declared.

No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.

Financial competence

There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit variation.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation Responses

Responses from organisations listed in the consultation section

Response received from UK HSA.

Brief summary of issues raised:

- Point source emissions of nitrogen dioxide from generators on site
- Point source emissions of particulate matter, carbon dioxide and volatile organic compounds from the biomass boiler
- Mitigation of public exposure to non-threshold pollutants
- Fire mitigation measures following the fire on site in 2022
- Odour control measures

Summary of actions taken: During determination of the application, we requested detailed air dispersion modelling of the air emissions from the biomass boiler and the diesel generators on site, to determine the acceptable limits of pollutant emissions from the site. The maximum predicted Process Contributions (PCs) were insignificant and Predicted Environmental Concentrations (PECs) will not exceed any of the Environmental Standards for human health and habitats. We used the modelling to set limits that minimise and mitigate any adverse effects on public health.

During the determination we also requested revisions of the applicant's fire prevention plan. The final plan was assessed in line with our guidance, and we are satisfied that the plan provides a robust strategy to mitigate and control potential fire incidents on the site.

The waste types accepted at the site have a low potential to cause odours. We have assessed the operator's management systems and operating techniques, and we are satisfied that they are able to minimise any potential odours and any releases of fugitive pollutants that may arise.