

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Day Group Limited

Avonmouth IBA Recycling Facility Royal Edward Dock Avonmouth Bristol BS11 9BT

Variation application number

EPR/DP3332JX/V005

Permit number

EPR/DP3332JX

Avonmouth IBA Recycling Facility Permit number EPR/DP3332JX

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

Changes introduced by this variation notice:

This variation has been issued to update the permit following a statutory review of the permits in the industry sector for treatment of incinerator bottom ash.

The Industrial Emissions Directive (IED) came into force on 7th January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) conclusions as described in the Commission Implementing Decision. The BAT conclusions for incineration were published on 03 December 2019 in the Official Journal of the European Union (L323) following a European Union wide review of BAT, implementing decision 2017/2117/EU of 21 November 2017.

The main features of the permit are as follows.

The environmental permit allows the operation of an Incinerator Bottom Ash recovery facility. The installation accepts and treats Incinerator Bottom Ash (IBA) to recover ferrous and non-ferrous metal and to produce an Incinerator Bottom Ash Aggregate (IBAA). The facility is permitted to accept up to 200,000 tonnes of IBA per year.

Site activities are as follows:

- S5.4 A(1) (b) (iii) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving treatment of slags and ashes.
- Storage of waste prior to and after treatment.
- Collection and storage of uncontaminated water for re-use on site and discharge from site.
- Collection and storage of contaminated water for re-use on site and discharge from site.
- Blending of IBAA

The IBA is received and stored at the site until the Energy from Waste (EFW) operators provide confirmation to demonstrate that the IBA is non-hazardous in nature. Unprocessed IBA is tipped and stored in windrows up to 8m high by hydraulic excavator in a three sided building with a vented ridge line for its maturation period. When confirmation of the non-hazardous sample is received, typically within 2-4 weeks IBA is then processed. The installation is authorised to process up to 800 tonnes of Incinerator Bottom Ash (IBA) per day.

The treatment process involves removal of ferrous and non-ferrous metals through the use of vibrating screens, over-band magnets, trommeling, eddy current separation and manual picking. These processes separate out metal fractions and produce IBA fractions. IBA fractions are recombined then blended with aggregates to produce an IBAA which meets the relevant standard for the end-use. The treatment and storage areas have an impermeable surface with sealed drainage.

Processing of IBA takes place in enclosed buildings and transfer between buildings is via enclosed conveyors. The feed hopper inside the IBA storage building is fitted with a dust and vapour extraction unit. This extraction unit is fitted with a wet scrubber. There is an emission to air from this system which vents through a fan and fan stack. All screens, magnets and eddy current separators are housed in enclosed buildings. All doors are kept closed unless in use. IBAA fractions are stored in three sided bays with partial cover and are discharged via conveyors fitted with rubber chutes and mist halos. To further reduce fugitive emissions, dust suppression sprays are used to dampen down road surfaces, within high traffic areas such as outside the IBA building. These road surfaces will be kept damp at all times.

The treatment and storage areas have an impermeable surface with a sealed drainage system. Surface waters flow to a number of collection features such as gullies or settlement pits. The outfalls from gullies and settlement pits discharge via sealed pipework to the foul sewer network outside the site boundary.

To prevent/minimise dust emissions, the incoming waste is received and stored at a moisture content of 18-20%. Moisture content of the IBA is monitored and the site management can take actions to ensure the IBA stays moist and does not cause dust emissions. Moisture content will fluctuate throughout the treatment process and typically IBAA stockpiles have a resulting moisture content of 12-16%. The moisture content of the IBAA is also monitored and additional water added if necessary to prevent dust release.

The installation is located at Avonmouth Docks. The centre of the Installation is approximately at National Grid Reference ST 51317 78589. The nearest residential housing is at King Street, approximately 50 metres southeast from the boundary of the installation. Other residential housing on Kings Street is within 100 metres and the nearest housing on Richmond Terrace is approximately 120 metres away. Other industrial sites are immediately to the north of the installation. The Severn Estuary (European Habitats Directive Site) is approximately 500 m from the installation.

The operator has an Environmental Management System compliant with ISO 14001 certification.

Status log of the permit				
Description	Date	Comments		
Application (EPR/TP3138DP/A001)	Duly made 30/09/2016	Application for IBA processing permit		
Additional information received (Schedule 5 Notice issued 01/02/12)	20/12/2016 and 06/02/2017			
Application refused	12/04/2017			
Appeal additional information received	21/07/2017 and 28/11/2017			
Planning Inspectorate's Appeal Decision	31/08/2018			
New application number assigned (EPR/DP3332JX/A001)	02/02/2018	Application number changed from EPR/TP3138DP/A001 to EPR/DP3332JX/A001.		
Permit issued (EPR/DP3332JX)	05/02/2018			
Application EPR/DP3332JX/V002	Duly made	Application to vary and update the permit to		
(variation and consolidation)	20/11/2018	modern conditions.		
Variation determined	23/11/2018	Varied permit issued.		
EFR/DF3332JA				

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit				
Description	Date	Comments		
Application EPR/DP3332JX/V003 (variation and consolidation)	Duly made 14/06/2019	Application to increase the annual throughput of waste received at the site from 130,000 tonnes to 160,000 tonnes per year.		
Variation determined EPR/DP3332JX	08/10/2019	Varied permit issued.		
Application EPR/DP3332JX/V003 (variation and consolidation)	Duly made 27/04/2023	Application to increase daily processing limit from 700 to 800 tonnes, maximum IBA storage from 10,000 to 14,000 tonnes and annual throughput from 160,000 to 200,000 tonnes.		
Variation determined EPR/DP3332JX/V004		Varied permit issued.		
Environment Agency Non- hazardous Waste Sector Review Variation Number EPR/DP3332JX/V005 (variation and consolidation)	12/07/23	Regulation 61 Notice requiring information for Statutory review of permit against Waste Incineration BAT Conclusions published 12 December 2019 - documents received in response to the Regulation 61 Notice dated 14/04/23.		
Regulation 61 notice – additional information request	12/04/24	Documents provided: "2703-76 RevA Paving Details" "Reg 61 Further Information Avonmouth DP3332JX" "2703-36 RevE Drainage & Paving Details"		
Regulation 61 notice – additional information request	14/10/24	Documents provided: <i>"AV001-101 Rev1 Site Layout Plan EA Permit"</i> <i>"AV001-174 Rev0 Emissions Management Plan"</i> <i>"Avonmouth DMP v5"</i> <i>"Environmental Management Plan (Avonmouth)</i> <i>v6</i> "		
Variation issued EPR/DP3332JX	21/11/2024	Varied permit issued.		

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/ DP3332JX

Issued to

Day Group Limited ("the operator")

whose registered office is

Day Group House Transport Avenue Brentford Middlesex TW8 9HF

company registration number 00432417

to operate a regulated facility at

Avonmouth IBA Recycling Facility Royal Edward Dock Avonmouth Bristol BS11 9BT

to the extent set out in the schedules.

The notice shall take effect from 21/11/2024.

Name	Date
Peter Maksymiw	21/11/2024

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions and tables have been added/varied/deleted as a result of the Environment Agency Initiated Variation:

Conditions	Amendment	
Condition 2.4	Improvement programme conditions removed as there are no improvement conditions within the permit.	
Condition 3.1.1	Wording amended to add reference to table S3.2.	
Conditions 3.2.2 (a) and (b)	Added in line with the modern template. Subsequent condition re-numbered.	
Conditions 3.5.1 (b) and (d) and 3.5.4	Addition of point source emissions to air table S3.1, amendment of point source emissions to sewer table S3.2 and addition of process monitoring table S3.3 with adjustments to stated conditions to match the addition of these tables.	
Condition 4.3.2	Wording updated to match modern template.	
Condition 4.3.4	Wording updated to match modern template.	
Table S1.1 as referenced in condition 2.1.1	Activities table updated in-line with modern standards and current site activities.	
Table S1.2 as referenced in condition 2.3.1	Operating techniques updated with documents received in response to the regulation 61 review.	
Table S3.1 as referenced in condition 3.5.1 (a) and 3.5.4	Emissions to air added.	
Table S3.2 as referenced in condition 3.5.1 (a) and 3.5.4	Emissions to sewer updated in-line with BAT.	
Table S3.3 as referenced in condition 3.5.1 (a) and 3.5.4	Process monitoring added in line with modern template. Subsequent table numbering adjusted.	
Table S4.1 as referenced in conditions 4.2.3	Table has been amended to implement reporting of emissions to sewer and process monitoring.	
Table S4.3 as referenced in condition 4.2.2 (c)	Table has been amended to add reporting of energy usage and water usage.	
Table S4.4 as referenced in conditions 4.2.2 (c) and 4.2.3 (b)	Table has been amended to include relevant forms.	
Schedule 6 as referenced in condition 4.4.1	Schedule amended by adding additional interpretations that are relevant to the changes made as a result of this variation and by updating some of the existing interpretations.	

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Variation and consolidation application number EPR/DP3332JX/V005

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/ DP3332JX This is the consolidated permit referred to in the variation and consolidation notice for application EPR/DP3332JX/V005 authorising,

Day Group Limited ("the operator")

whose registered office is

Day Group House Transport Avenue Brentford Middlesex TW8 9HF

company registration number 00432417

to operate an Installation at

Avonmouth IBA Recycling Facility Royal Edward Dock Avonmouth Bristol BS11 9HF

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Peter Maksymiw	21/11/2024

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
 - (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Energy efficiency

- 1.2.1 The operator shall:
 - (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
 - (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
 - (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 **Operations**

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").
- 2.1.2 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
 - (a) it is of a type and quantity listed in schedule 2 table S2.2; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
 - (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1.
 - (b) point source emissions specified in tables S3.2.
 - (c) process monitoring specified in table S3.3.
 - (d) ambient air monitoring specified in table S3.4.

- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 2 table S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
 - (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
 - (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production/treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
 - (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and

- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

- 4.3.1 In the event:
 - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately-
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
 - (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately" in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities					
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types		
AR1	S5.4 Part A(1) (b) (iii) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving treatment of slags and ashes.	R4: Recycling/reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic materials	From receipt of permitted waste IBA through to treatment. Treatment of IBA in an enclosed building/enclosure using a combination of a trommel, vibrating screens, magnetic separators, eddy current separation and manual picking. Treatment shall take place on an impermeable surface with sealed drainage. There shall be no channelled emissions to air. The daily treatment capacity is limited to 800 tonnes per day. Waste types for storage and treatment as specified in table S2.2.		
Directly Assoc	iated Activity	Ι			
AR2	N/A	Storage of IBA prior to treatment R13: Storage of waste pending the operations numbered R1, R4 and R5 (excluding temporary storage, pending collection, on the site where it is produced)	From receipt of waste to transfer to treatment process. Storage shall take place in a building and on an impermeable surface with sealed drainage system. The maximum quantity of IBA stored at any one time prior to treatment is limited to 14,000 tonnes. No waste shall be stored for more than 12 months. There shall be no channelled emissions to air. Waste types as specified in Table S2.2.		
AR3	N/A	Storage of wastes recovered from the IBA treatment processes R13: Storage of waste pending the operations numbered R1, R4 and R5 (excluding temporary storage, pending collection, on the site where it is produced)	From recovery of waste to despatch off-site for use. Storage of processed IBAA, ferrous and non-ferrous metals after treatment. The maximum quantity of IBAA, ferrous/non-ferrous metals stored at any one time after treatment is limited to 10,000 tonnes. There shall be no channelled emissions to air.		

Table S1.1 activities				
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types	
			Storage shall take place on an impermeable surface with a sealed drainage system.	
AR4	N/A	Blending of IBAA fractions with aggregate R5: Recycling/reclamation of other inorganic materials	Treatment consisting of blending of IBAA fractions with aggregates. There shall be no channelled emissions to air. Treatment shall take place on an impermeable surface with sealed drainage.	
AR5	N/A	Uncontaminated surface water	From the collection of uncontaminated water for reuse or discharge to sewer.	
AR6	N/A	Collection and storage of contaminated surface water	From the collection of contaminated water produced at the facility to storage in the recycled water storage tanks and settlement lagoons prior to re-use within the facility or discharge from site. Storage and discharge of part of the collected contaminated water to sewer	

Table S1.2 Operating techniques				
Description	Parts	Date Received		
Additional information received during the appeal process	Flood Emergency Plan	21/07/2017		
Additional information received during the appeal process	Environmental Management System & Operating Techniques document dated November 2017	28/11/2017		
Additional information received during the appeal process	Dust management plan, odour management plan and noise management plan	28/11/2017		
Additional information received during the appeal process	Drawings: AV001-95 Rev 1 AV001-109 Rev 2 Av001-110 Rev1	28/11/2017		
Additional information requested 20/11/2018	Criteria for acceptance of incinerator bottom ash that has already been subject to some degree of treatment.	20/11/2018		
Application EPR/DP3332JX/V003	Section 3.3 of the document titled 'Environmental Management System & Operating Techniques' dated 27 November 2017 (amended June 2019)	11/06/2019		

Table S1.2 Operating techniques				
Description	Parts	Date Received		
Application EPR/DP3332JX/V004	Environmental Management Plan (Avonmouth) superseding 'Environmental Management System & Operating Techniques'	08/11/2022		
Response to regulation 61 notice EPR/DP3332JX/V005 Response to regulation 61 notice	Documents titled: <i>"BATC Return Spreadsheet Avonmouth 12 July 2023"</i> Points 4.a and 13 of <i>"Avonmouth Reg 61 Response</i> <i>Appropriate Measures"</i> <i>"Method Statement Processing of IBA (Avonmouth)"</i> <i>"IBA Acceptance Quarantine and Production Recording"</i> Drawings: <i>"AV001-32 Rev 2 Site Drainage Plan"</i> <i>"AV001-42 rev 2 Drainage Layout"</i> Response to questions 1,2,3,4,5 & 9 of <i>"Reg 61 Further Information Avonmouth Dp3332JX.pdf"</i>	12/07/2023		
EPR/DP3332JX/V005 - Additional information received in response to the Request for Further Information (RFI) dated 22/03/24				
Response to regulation 61 notice EPR/DP3332JX/V005 - Additional information received 23/10/24	Updated dust management plan – "Avonmouth DMP v5" Section 4.2 of "Environmental Management Plan v6", Dust and Vapour Extraction Drawings: "AV001-174 Rev0 Emissions Management Plan" "AV001-101 Rev1 Site Layout Plan EA Permit"	23/10/2024		

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels			
Raw materials and fuel description Specification			
-	-		

Table S2.2 Permitted	waste types and quantities for incinerator bottom ash storage and processing
Maximum quantity	The annual throughput shall not exceed 200,000 tonnes per year. The daily processing shall not exceed 800 tonnes per day. The total storage of waste on site shall not exceed 14,000 tonnes at any one time.
Waste code	Description
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 01	wastes from incineration or pyrolysis of waste
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Filtered air vent from dust extraction stack in plan AV001-174 Rev0	IBA treatment feed hopper extraction system	Dust	-	-	-	-

Table S3.2 Point source emissions to sewer emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
C1 and C6 in plan AV001- 174 Rev0	Uncontaminated surface water run- off	No parameters set	No limit set	-	-	-
C8 in plan AV001- 174 Rev0	3 in plan /001- '4 Rev0 Contaminated Surface Water Total organic carbon (TOC) No Limit composite sample oth oth and oth set S	Monthly or otherwise bi-	EN 1484			
Total No s suspended Limit d solids set	duration, or spot sample if the discharge is mixed and homogeneous	agreed in writing by the Environment	EN 872			
	Lead 0.06 mg/l (1)	Agency	EN ISO 11885, EN ISO 17294- 2 or EN ISO 15586			
		Ammonium – nitrogen (NH ₄ - N)	nmonium – No rogen (NH₄- Limit set	EN ISO 11732 or EN ISO 14911		
		Chloride (Cl ⁻)	No Limit set			EN ISO 10304- 1 or EN ISO 15682
		Sulphate (SO4 ²⁻)	No Limit set			EN ISO 10304- 1
		Dioxins/Furans (I-TEQ)	No Limit set		Bi-annually	BS ISO 18073
(1) The BAT-AELs may not apply if the downstream waste water treatment plant is designed and equipped appropriately to abate the pollutants concerned, provided this does not lead to a higher level of pollution in the environment.						

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
At the IBA and IBAA waste stockpiles shown on the site layout plan AV001-101 Rev1	Moisture content	As agreed under the dust emissions management plan	As agreed under the dust emissions management plan	-
C8 in plan AV001-174 Rev0 - Contaminated Surface	рН	Flow proportional composite sample	BS ISO 10523	-
Walei	Conductivity	over discharge duration, or spot sample if the discharge is mixed	EN 27888	-

Table S3.4 Ambient air monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
In accordance with the dust	PM10	Continuous	Monitoring methods, trigger levels and actions as specified in approved dust management plan	
management plan	Deposited particulate matter	Continuous		
	Visual dust checks	Daily		

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Point source emissions to sewer parameters as required by condition 3.5	C8 in plan AV001-174 Rev0	Every 12 months	1 January
Process monitoring (moisture Content) parameters as required by condition 3.5	At the IBA storage building and IBAA waste stockpiles	Every 6 months	1 January, 1 July
Process monitoring (pH and conductivity) parameters as required	C1 and C6 in plan AV001- 174 Rev0	Every 12 months	1 January
by condition 3.5	C8 in plan AV001-174 Rev0	Every 12 months	1 January
Ambient air monitoring (as required by condition 3.5 and table S3.4)	As specified in dust manager	nent plan	

Table S4.2: Annual production/treatment		
Parameter	Units	
IBA treated	tonnes	
IBAA produced	tonnes	

Table S4.3 Performance parameters			
Parameter	Frequency of assessment	Units	
Water usage	Annually	m ³	
Energy usage	Annually	MWh	

Table S4.4 Reporting forms				
Media/parameter	Reporting format	Date of form		
Ambient air monitoring	Form ambient air 1 or other form as agreed in writing by the Environment Agency	28/11/17		
Point source emissions to sewer	Emissions to Sewer Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021		
Process monitoring	Process Monitoring Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021		
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021		
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021		
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021		

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution		
To be notified within 24 hours of d	letection	
Date and time of the event		
Reference or description of the location of the event		
Description of where any release into the environment took place		
Substances(s) potentially released		
Best estimate of the quantity or rate of release of substances		
Measures taken, or intended to be taken, to stop any emission		
Description of the failure or accident.		

(b) Notification requirements for the breach of a limit		
To be notified within 24 hours of detection unless otherwise specified below		
Emission point reference/ source		
Parameter(s)		
Limit		
Measured value and uncertainty		
Date and time of monitoring		
Measures taken, or intended to be taken, to stop the emission		

Time periods for notification following detection of a breach of a limit		
Parameter	Notification period	

(c) Notification requirements for the breach of permit conditions not related to limits		
To be notified within 24 hours of det	ection	
Condition breached		
Date, time and duration of breach		
Details of the permit breach i.e. what happened including impacts observed.		
Measures taken, or intended to be taken, to restore permit compliance.		

(d) Notification requirements for the detection of any significant adverse environmental effect		
To be notified within 24 hours of detection		
Description of where the effect on the environment was detected		
Substances(s) detected		
Concentrations of substances detected		
Date of monitoring/sampling		

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

"accident" means an accident that may result in pollution.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"bottom ash" means ash falling through the grate transported by the grate.

"building" means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

"disposal" means any of the operations provided for in Annex I to the Waste Framework Directive.

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"hazardous waste" has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 No.894, the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138), the List of Wastes (England) Regulations 2005 No.895 and the List of Wastes (Wales) Regulations 2005 No. 1820 (W.148).

"Industrial Emissions Directive" means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

"List of Wastes" means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"recovery" means any of the operations provided for in Annex II to the Waste Framework Directive.

"sealed drainage system" in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

• no liquids will run off the surface otherwise than via the system.

• all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged to foul sewer.

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

"Waste Framework Directive" or "WFD" means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit

"year" means calendar year ending 31 December.

When the following terms appear in the waste code list in Schedule 2, table 2.2 for that table/those tables, they have the meaning given below:

'hazardous substance' means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008

'heavy metal' means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances

'PCBs' means

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 %by weight

'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances

'stabilisation' means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste

'solidification' means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste

'partly stabilised wastes' means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term

Schedule 7 – Site plan



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