

Wainwright Avonmouth Asphalt Facility, Rockingham Park

Asphalt Recycling

Permit Application Statement





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Document Control

| Version | Date | Author / Checked by | Change Description | |
|------------|------------|---------------------|-----------------------------|--|
| Draft 1. | 07/12/2022 | ND/LB/MB | Document created/ Finalized | |
| Version 1. | 22/12/2022 | ND | | |
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Contents

| 1 | Introduction | 1 |
|---|--|----|
| 2 | | |
| 2 | The Site | |
| | Designations | 3 |
| 3 | Scheduled Activity and Specified Waste Management Operations | 4 |
| | Permitted Waste Types & Quantities | 4 |
| | Waste Management Activities | 4 |
| 4 | Operating Procedures | 5 |
| | Waste Acceptance Procedures | 5 |
| | Quarantined Wastes | 8 |
| | Waste Storage & Treatment | 8 |
| | Operating Hours | 9 |
| 5 | Regulated Facility Infrastructure | 10 |
| | Plan | 10 |
| | Site Access | 10 |
| | Plant & Equipment | 10 |
| | Security | 11 |
| 6 | Emissions, Control & Monitoring | 12 |
| | Point Source Emission to Air | 12 |
| | Point Source Emissions to groundwater | 12 |
| | Point Source Emissions to Surface Water and Sewers | |
| | Fugitive Emissions | 12 |
| | Control of Odours | 13 |
| | Control of Noise | 13 |
| | Control of Scavengers, Insects and Other Pests | 13 |
| | Control of Litter | 13 |
| | Control of Mud and Debris | 14 |
| 7 | Accident Management | 15 |
| 8 | Management | 16 |
| | Technical Competence | 16 |
| | Management System | 16 |





| 9 | Management of Documentation | 17 |
|----|------------------------------|----|
| | Record Keeping | 17 |
| | Maintenance of records | 18 |
| 10 | Incidents & Non-Conformances | 19 |

Plans:

661B/Permit/1: Permit Plan

661B/Permit/2 Layout





1 Introduction

- 1.1 This Permit Application Statement has been prepared by Land & Mineral Management, on behalf of John Wainwright & Co Ltd (the Applicant), to accompany the 'Application for a Bespoke Environmental Permit to Recycle Waste Asphalt on land adjacent to the 'Wainwright Avonmouth Asphalt Facility, Rockingham Park, Smoke Lane, Avonmouth, Bristol, BS11 0FJ'.
- 1.2 The Applicant owns and operates the Wainwright Avonmouth Asphalt Facility (the Asphalt Plant), which lies adjacent. The plant has been operational and has supplied asphalt products since 2016 to National Highways, local authorities, private contractors, construction companies and the collection trade.
- 1.3 The asphalt products are exported to customers by HGV. It is common for customers to over order. The resulting surplus waste asphalt must be transported to another site for storage and reprocessing into recycled asphalt products which are termed 'Recycled Asphalt Products' (RAP).
- 1.4 The resulting RAP is then transported back to the Asphalt Plant, by HGV, to use in the production of asphalt products. The use of RAP, in this instance, can replace up to 50% of primary won aggregate and bitumen.
- 1.5 The ability to use RAP in asphalt production reduces the reliance on primary won aggregate and bitumen resources which in turn reduces the environmental impacts associated with extraction, production and transportation.
- 1.6 The Applicant is therefore seeking an Environmental Permit to recycle waste asphalt to produce RAP for use in the Wainwright Avonmouth Asphalt Facility on an existing adjacent yard (the Site).
- 1.7 The waste asphalt to be recycled will, principally, have resulted from customers overordering asphalt products produced at the Wainwright Avonmouth Asphalt Facility. In this instance the asphalt products produced at this plant will be transported to the customer by HGV. Any overordered asphalt products will have remained in this HGV until it is transported back to site for recycling into RAP.
- 1.8 To a lesser extend it is also proposed to accept road planings (waste asphalt) which have been removed to allow resurfacing. Waste asphalt that contains coal tar, which is hazardous, will not be accepted.





1.9 This Permit Application Statement provides a description of these proposals which are termed the 'Operations'.





2 The Site

- 2.1 As shown on Plan no: 661B/Permit/01, the Site which is outlined in green, is located west of Smoke Lane (A403) in Avonmouth, to the north west of Bristol.
- 2.2 The Site is located in the Avonmouth area with easy access to the M5 motorway and Bristol.

 Avonmouth is identified as a principal industrial and warehousing area.
- 2.3 The Site is located in an area named 'Rockingham Park'. To the south of Rockingham Park are industrial buildings including recycling facilities. Smoke Lane and more industrial buildings lie to the east. To the north is a railway line and scrubland beyond which is an oil terminal. The railway line and oil terminal also lie to the west beyond which is the Bristol Channel/Seven Estuary.
- 2.4 There are no residential properties in the vicinity of Rockingham Park.
- 2.5 The Site is 0.34 ha in size and can be accessed from a private road which joins the public highway onto the roundabout onto Smoke Lane. The Asphalt Plant is to the north.
- 2.6 The Site has been developed with a hardcore surface and enclosed with a steel palisade fence.
 It is temporarily being used for the storage of large cranes by King Lifting.

Designations

- 2.7 A disused Anti-Aircraft Battery located to the west is designed as a Scheduled Monument.
- 2.8 The Seven Estuary, which lies further to the west, is designated as a Ramsar site, a Site of Special Scientific Interest, a Special Area of Conservation, a Special Protection Area and an Important Bird Area.





3 Scheduled Activity and Specified Waste Management Operations

3.1 As the Operations are for recycling waste that is classified as being non-hazardous, it is considered to be a waste activity as set out in the Environmental Permitting (England & Wales) Regulations 2016 (as amended).

Permitted Waste Types & Quantities

- 3.2 The waste type to be accepted and recycled will be Waste Code 17 03 02 which is defined as a non-hazardous bituminous mixture.
- 3.3 A maximum of 50,000 tonnes of RAP will be produced per annum.
- 3.4 The maximum treatment capacity of the Operations shall not exceed 1,000 tonnes per day.
- 3.5 Storage will not exceed 6,000 tonnes of waste at any one time.
- 3.6 Storage of waste will not exceed 6 months.

Waste Management Activities

- 3.7 The following waste management activities will be undertaken:
 - R5: Recycling or reclamation of other inorganic materials; and
 - R13: Storage of wastes pending the operations numbered R3 and R5.





4 Operating Procedures

Waste Acceptance Procedures

Pre-acceptance Procedures

- 4.1 Before arrangements are made to deliver the waste to the site, the waste producer or holder will be required to provide sufficient information to demonstrate that the waste has been properly assessed and classified in accordance with Technical Guidance WM3 'Waste Classification Guidance on the classification and assessment of waste'.
- 4.2 The bulk of the waste accepted at the Operations will be generated by the Applicant from overordered returned asphalt (Overorders).
- 4.3 Overorders is waste asphalt that has resulted from customers overordering asphalt products produced at the Wainwright Avonmouth Asphalt Facility. Here the asphalt products produced will have been transported to the customer by an Applicant owned HGV. Any excess asphalt product which is considered discarded by the customer and therefore must be considered as a waste.
- 4.4 The overordered waste asphalt will not have left the Applicant owed HGV which will transport it back to the Site for recycling into RAP. As a result, there can be surety that the Overorders are the correct single waste type, is from a known and reliable source and that it will not include contaminants such as hazardous materials like coal tar. Pre-acceptance Procedures are therefore not required prior to the acceptance of Overorders.
- 4.5 To a lesser extent it is also proposed to accept road planings (waste asphalt) which has been removed to allow resurfacing.
- 4.6 Waste asphalt that contains coal tar, which is hazardous, can be found in road planings. Coal tar was used as a binder in asphalt until the demise of coal fired gasworks in the mid-1980's and is known to be a carcinogenic hazardous substance.
- 4.7 As result the producer of road planings will be required to provide the Applicant with, where applicable/available, the following pre-acceptance information:
 - Details of the waste producer/holder including their organization name, address and contact details;
 - Description of the waste;





- The waste classification code;
- Source of the waste;
- Nature and variability of the waste;
- Description of any odour;
- Details of the original construction of any carriageway or pavement requiring excavation so
 that the dates of construction can be used as an indication of the potential for coal tar to be
 present;
- Details of any maintenance works undertaken including the dates to indicate the types of material that may have been used;
- Information obtained during any intrusive investigations undertaken including results from testing and/or cores drilled; and
- Estimates of volumes.
- 4.8 The Applicant will only consider the acceptance of waste road planings where sufficient evidence is provided, as listed above, to provide assurance that it's the correct waste type which does not contain coal tar.
- 4.9 If, following the provision of the information listed above, the inclusion of coal tar cannot be ruled out, the results of further pre-acceptance testing will be required as follows:
 - A dry section of the waste asphalt will be sprayed with a layer of white acrylic paint and the
 paint allowed to dry. Once dry, if its colour has changed from white to yellow/brown coal
 tar is likely to be present; and
 - A PAK spay is spayed onto the waste asphalt. It this turns a yellowish/light brown colour coal
 tar is likely to be present. If there is any doubt of visible discolouration then an Ultra Violet
 lamp may be used. In this instance a yellow/green colour suggests that coal tar is present.
- 4.10 If the waste road planings fail these tests or the test are inconclusive, the waste producer will be required to provide test results from an accredited laboratory to confirm the presence of hazardous/non-hazardous materials.





- 4.11 Only waste road planings which pass these tests will be considered for acceptance at the Operations.
- 4.12 All records relating to the Pre-acceptance Procedures will be kept for cross-reference a verification at the waste acceptance stage.
- 4.13 The Applicant will review the information required for the Pre-acceptance Procedures annually or if the following apply:-
 - Waste changes;
 - Process giving rise to the waste changes;
 - Waste received does not to conform to the pre-acceptance information.

Acceptance Procedures

- 4.14 Waste will only be accepted if there is sufficient capacity at the Site and it has passed the relevant Pre-acceptance Procedures.
- 4.15 The delivery of waste will always be planned in advance with the delivery date agreed with the Applicant and the waste producer/holder.
- 4.16 All vehicles delivering waste will be licensed waste carriers and each delivery must be accompanied by a complete Waste Transfer Note consistent with fulfilling the Applicant's responsibilities under the Duty of Care Regulations.
- 4.17 All persons making deliveries of waste to the Operations are to produce a certified copy of the Waste Carriage Authorisation Certificate on a quarterly basis to the Technically Competent Manager (TCM). If this certificate is invalid, the delivery of the waste shall be refused entry to the Site.
- 4.18 All waste deliveries will be directed to the weighbridge upon arrival at the Wainwright Avonmouth Asphalt Facility where the load will be weighed and the documents detailing the source and description of the waste provided. These documents will be inspected by the Weighbridge Office Manager to ensure that the correct information is provided to comply with the requirements of the Environmental Permit.





- 4.19 The Weighbridge Office Manager will make a record of the date and time of waste deliveries, quantities and the nature of the waste deposited at the site, the name of the company and their representative delivering (if applicable) each load of waste and the vehicle registration number.
- 4.20 If the driver is unable to produce a valid Waste Transfer Note they are to be refused entry to the Site.
- 4.21 The Weighbridge Office Manager will also undertake a visual inspection of the waste, to ensure that the description of the waste on the documentation provided matches the contents.
- 4.22 If the documentation provided at the weighbridge office is incorrect or the visual inspections indicate that the waste does not match the written description provided, the waste will be rejected.
- 4.23 If the document checks show that the waste is acceptable, the driver will be directed to the Site to unload.
- 4.24 The Site Manager will supervise the waste being discharged and a further inspection will be undertaken.
- 4.25 If following these inspections the waste does not match the written description provided during acceptance, the waste will be rejected.

Quarantined Wastes

- 4.26 In the event that wastes that are unsuitable for processing, due to not meeting the description of the approved waste type will be rejected.
- 4.27 Loads that have been deposited will be reloaded to the delivery vehicle and rejected.
- 4.28 The Environment Agency will be notified of the rejected load without delay.

Waste Storage & Treatment

- 4.29 The Operations allows for the reception, storage, treatment and recycling of asphalt waste materials, and the storage of product (RAP) for use in the adjacent Asphalt Plant.
- 4.30 Plan no: 661B/Permit/02 shows the layout of the Operations.
- 4.31 It is proposed to erect three storage bays, two along the southern boundary and one larger bay along the northern boundary.





- 4.32 The larger northern bay will be used to store unprocessed waste asphalt.
- 4.33 The waste asphalt will be imported to the Site by HGV which will unload directly in the 'unprocessed waste asphalt bay'.
- 4.34 Once a sufficient volume of waste asphalt has amassed it will be processed using a crusher. Waste asphalt is much weaker than rock or concrete, meaning the crusher is able to operate at a much a lower intensity to reduce the size of the lumps. As a result, the noise from the crushing is comparable to an excavator and or a loading shovel, which will be operating at the Site.
- 4.35 If required, the material will be screened.
- 4.36 The crushed/screened asphalt material will be stored in two smaller bays to the south of the Site.
- 4.37 It is estimated that crushing and screening will be undertaken for 5 working days per month.
- 4.38 An excavator and or a loading shovel will be used to load the crusher, fill the storage bays and load HGVs to transport material to the Asphalt Plant.
- 4.39 The production of the RAP will be subject to the protocol set out in the end of waste criteria for the production and use of aggregates from inert waste titled the 'Quality protocol: aggregates from inert waste'. This will ensure that the RAP has been fully recovered and can therefore be regarded as a non-waste product.

Operating Hours

4.40 The Operations will operate 24 hours a day and seven days a week, in conjunction with the Asphalt Plant. This is necessary to meet the demands of customers such as the night-time highway networks.





5 Regulated Facility Infrastructure

Plan

5.1 Plan no: 661B/Permit/02 shows the layout of the Operations.

Site Access

5.2 The Site will be access via an existing private road, shared with the Asphalt Plant, which joins the A340.

Plant & Equipment

- 5.3 The mobile plant (not shown on the layout plan) which will be used during the Operations is as follows:
 - Excavator Volvo EC380 / EC220
 - Loading Shovel Volvo L180 / CAT 962
 - Mobile Crusher Terex I120 / Rubblemaster RM100
 - Screen Terex 683
- As a function of the Operations' Environmental Management System (EMS), the performance of all plant and equipment will be reviewed in comparison to other models that may be available on the market. If there happens to be other models available that perform more efficiently than the Operations' existing plant and is financially feasible, the Applicant may decide to change their existing plant and equipment.
- 5.5 As such, the brand, make, model and specification of the mobile plant and equipment is expected to vary.
- 5.6 Only personnel who are trained and licensed to operate equipment and carry out maintenance will do so.
- 5.7 All plant and equipment will be maintained in accordance with a preventative maintenance programme which will be defined by the manufacturer's requirements. This will ensure that the integrity and operational efficiency of all plant and equipment is maintained and therefore minimises the risks of mechanical failure which may result in increased dust emissions and noise. This programme forms part of the EMS.





- 5.8 In addition, all plant and equipment will be visually inspected on a daily basis by the Site Manager (or a nominated deputy) prior to use. The purpose of this inspection is to identify any signs of defects that may affect the integrity and operational efficiency of the plant.
- 5.9 In the event that a defect is identified on any item of plant or equipment, the use of the plant/equipment will be suspended until the necessary remedial works have been undertaken.

Security

- 5.10 The emergency contact telephone numbers for the Operations will be located on a fixed noticed board adjacent to the site entrance. The Notice Board will provide details of the named Site Licence Holder, Licence numbers and the name of the Site Manager who is also a holder of the appropriate technical competence for the Operations.
- 5.11 The Site is fenced and will be secured by lockable gates to prevent the unauthorised entry of the general public and the unauthorised depositing of wastes.





6 Emissions, Control & Monitoring

6.1 The emissions and impacts are established in the Risk Assessment in Appendix F of the Environmental Permit Application.

Point Source Emission to Air

- 6.2 There would be no point source emissions to air as a result of the Operations.
- 6.3 The only point source emissions relevant to this application are from mobile plant. In this instance, all plant utilised by the Operations will be serviced and maintained in accordance with manufacturers recommendations providing control. This will ensure that the equipment is operated in an optimal condition to ensure emissions are in accordance with quoted specifications. As a result, further control measures are not required.
- 6.4 No specific monitoring required other than inspections to ensure compliance with servicing and maintenance schedules.

Point Source Emissions to groundwater

- 6.5 Possible transport through hardcore surface/soil into groundwater. Nevertheless, the permitted waste type does not include sludges or liquids and does not leach so no potential for contaminated rainwater run-off.
- 6.6 Control achieved through Waste Acceptance Procedure.
- 6.7 No specific monitoring required other than inspections to ensure compliance with the Waste Acceptance Procedure.

Point Source Emissions to Surface Water and Sewers

- 6.8 There would be no point source emissions to surface water or sewers.
- 6.9 No control or monitoring required.

Fugitive Emissions

6.10 Low risk of fugitive emissions from processing plant have been identified as a potential environmental risk resulting from the Operations, as detailed in the Environmental Risk Assessment in Appendix C. This is a result of only one waste type being permitted, which has a very low risk of dust generation due to it being aggregate coated in bitumen and, therefore, highly unlikely to produce particulate matter.





- 6.11 The permitted waste type is also non-hazardous and does not consist of dust, powders or loose fibres.
- 6.12 HGVs and plant running on surfaced areas and the solid nature of the waste reduces possibility of fugitive emissions.
- 6.13 Control through the EMS including road sweeping and water bowsing when required.
- 6.14 Crushing and screening subject to an LAPPC Permit (PGN 3/16 (12) which will control the release of fugitive emissions.
- 6.15 Daily visual monitoring to be undertaken and inspections to ensure compliance.

Control of Odours

6.16 Odours are highly unlikely to be generated due to the nature of the stored and processed materials.

Control of Noise

- 6.17 Less likelihood of an adverse impact established following BS 4142 Assessment in Appendix H of the Environmental Permit Application.
- 6.18 Control through Noise Management Plan in Appendix H.
- 6.19 Monitoring following complaint as set out in the Noise Management Plan in Appendix H.

Control of Scavengers, Insects and Other Pests

- 6.20 The waste type is not attractive to scavengers, insects or pests as there is no biodegradable waste, or potential food sources.
- 6.21 Although no control or monitoring is required it is included in the EMS.

Control of Litter

- 6.22 Litter is not considered a risk due to the nature if the waste type.
- 6.23 If delivered loads contain excess litter, they will be rejected and the Environment Agency notified.
- 6.24 Although no control or monitoring is required it is included in the EMS.





Control of Mud and Debris

- 6.25 Mud and debris is highly unlikely due to the surfacing of the Site and the solid nature of the waste type.
- 6.26 Although no control or monitoring is required it is included in the EMS including the deployment of a road sweeper as necessary.





7 Accident Management

- 7.1 All necessary measures would be taken to prevent the occurrence of accidents. The types of accidents and the potential environmental consequences associated with them have been identified in the Environmental Risk Assessment in Appendix F and forms part of the Operations' EMS.
- 7.2 Note that no waste will be burned and due to the nature of waste stored at the Site, fire is highly unlikely as it is not flammable.





8 Management

Technical Competence

8.1 The Operations will be supervised by an individual who possesses the required level of technical competence. A copy of the Certificate of Technical Competence (COTC) is provided as Appendix A of the Environmental Permit Application.

Management System

- 8.2 The Applicant has an Environmental Management System (EMS) in place which meets the requirements of the Environment Agency's 'Develop a management system: environmental permits' guidance. A summary of the EMS is provided in Appendix B.
- 8.3 All site operatives are adequately trained in health, safety and environmental issues. Staff would only be permitted to undertake activities that they have been trained for. They would be made aware of the procedures they must follow in the event of an accident or incident and would be able to access any relevant documentation that they may require. All training, experience and qualifications of staff would be noted, and these records would be maintained and kept up to date.





9 Management of Documentation

Record Keeping

- 9.1 The Applicant has an EMS with the procedures for the management of documentation.
 - Daily & Weekly Booking Records Relating to the Reception of Waste
- 9.2 The Site Manager will be responsible for the completion of the daily and weekly sheets relating to the volumes and where appropriate weights of waste that are accepted on Site. The only other authorised persons allowed to complete these sheets will be the TCM and the Site Manager. As each load is accepted onto the Site from third parties the daily booking sheet shall be completed with the following details:
 - Where the waste originated from on a county basis;
 - The volume and weight of the waste received;
 - The Controlled Waste Transfer Note and the EWC code and type of waste from the consignment note; and
 - The driver's name.
- 9.3 While it is expected that the bulk of waste accepted will be generated by the Applicant (i.e. overordered returned asphalt) and delivered in Applicant owned HGVs, it is extremely likely that some third parties waste will also arrive at the facility. The weekly record is to show the volumes delivered and accepted from each company are to be recorded separately showing the total volumes and weights of all wastes received.
- 9.4 The information recorded shall be used by the Applicant for the completion of the Quarterly Returns to the Environment Agency. These returns shall show details of all wastes received at the Operations.
 - Records of Wastes Received
- 9.5 All records shall be stored at the Site office in the Wainwright Avonmouth Asphalt Facility at Rockingham Park.
- 9.6 Records of the Pre-acceptance Procedures will be kept for a minimum of 3 years.





- 9.7 All Controlled Waste Transfer Notes shall be kept for a minimum of 2 years after the receipt of the waste and made available for inspection by the Environment Agency at any reasonable time.
- 9.8 The Daily and Weekly Records shall be kept for a minimum period of 3 years.
- 9.9 The Quarterly and Annual Returns to the Environment Agency shall also be kept for a minimum period of 5 Years.
- 9.10 All the above records shall be made available for inspection by the Environment Agency at any reasonable time.
 - Recording of Accidents, Incidents and Complaints
- 9.11 A site diary would be kept in the site office, and this would be updated daily. The diary would be used to record any accidents, incidents or complaints. This would provide an ongoing record throughout the period of the Operations, and this would enable any investigative or corrective action that may be required.
- 9.12 The Environmental Permit and other documents containing information regarding the Operations would be kept in a convenient location, allowing access for any person that may be working at or visiting the site.

Maintenance of records

- 9.13 The site diary would be maintained and updated to include the following:-
 - The name of the technically competent person in attendance;
 - Weather conditions; Details of all visitors, including their status and times of arrival and departure;
 - Details of maintenance, modification, repair, replacement, delivery and return, and breakdown of any plant and machinery;
 - Damage to vehicles, fences, gates, etc. and incidents of trespass; and
 - Details of any complaints or environmental/health and safety incident.





10 Incidents & Non-Conformances

- 10.1 The Applicant has an EMS which includes the procedures for investigating and reporting any incidents and non-conformances from the Operations and for taking any corrective action.
- 10.2 The following types of incidents would require investigation:-
 - Malfunction, breakdown or failure of plant and equipment;
 - Deviation from site procedures and operating techniques;
 - Near misses; and
 - Complaints from external parties.
- 10.3 All staff would be trained to detect and report any such occurrences. Procedures would be taken to allow operations to resume, and preventative measures may be put in place to ensure that the incident does not reoccur.





