

# Erith Soil Treatment Facility

784-B066441

## Operating Techniques

Environmental Permit Application

Hanson Quarry Products Europe Ltd

January 2025

Document prepared on behalf of Tetra Tech Limited. Registered in England number: 01959704



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## 1.0 Introduction

### 1.1 Report Context

- 1.1.1 This section of the Environmental Permit application corresponds to Section 3 of Part B4 of the Environmental Permit application forms and specifically details the operating and management procedures for the proposed soil washing activity that will be in place at the site.
- 1.1.2 This Environmental Permit application has been prepared by Tetra Tech on behalf of the Operator, Hanson Quarry Products Europe Ltd (Hanson).
- 1.1.3 This document relates to Hanson's site Erith Soil Treatment Facility located at Hanson Quarry Products Ltd, Church Manorway, Erith, DA8 1DE.
- 1.1.4 Hanson seek to obtain a Bespoke Environmental Permit for a Soil Washing Facility and a Treatment of Non-Hazardous Waste Facility that will process a maximum of 800,000 tonnes per annum of non-hazardous soils. The activities on site will comprise of both dry recycling and soil washing to produce quality aggregates, soils and clay products for construction projects.
- 1.1.5 This document is an integrated document which describes both the operating techniques that will be implemented at the site to ensure compliance with the conditions of the Environmental Permit and also demonstrate that appropriate measures will be employed.
- 1.1.6 This report has been prepared to satisfy the requirements of the following:-
- Environment Agency – Develop a management system: environmental permits (August 2022).
  - Environment Agency – Control and monitor emissions for your environmental permit (May 2021); and,
  - Environment Agency – Non-hazardous and inert waste: appropriate measures for permitted facilities (August 2023).

## 2.0 Site Description

### 2.1 Overview of Site Activities

- 2.1.1 All site activities will be undertaken in accordance with EA Guidance 'Non-hazardous and inert waste: appropriate measures for permitted facilities' (Appropriate Measures).
- 2.1.2 It is the intention of Hanson to obtain an Environmental Permit for a soil washing facility and treatment of non-hazardous waste activity at the site.
- 2.1.3 The soil treatment activities will be to create recycled aggregates, soils and clays which are suitable for use in construction projects.
- 2.1.4 The proposal entails the operation of a soil washing facility dry recycling facility that will process a maximum of 800,000 tonnes per annum of non-hazardous soils.
- 2.1.5 It is considered that the proposed activity will fall under the following Recovery and Disposal codes (R and D codes) shown in Table 1, provided for in Annex II to Directive 2008/98/EC of the European Parliament and The Council of 19<sup>th</sup> November 2008 Waste.

**Table 1: Proposed R&D Codes**

R/D Code	Description of Activity
R3	Recycling/ reclamation of organic substances which are not used as solvents
R5	Recycling/reclamation of other inorganic compounds
R13	Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced).

### 2.2 Operating Hours

- 2.2.1 The operating hours of the Facility are as follows:
- 24 hours Monday - Sunday

### 2.3 Waste Types

- 2.3.1 A complete list of waste codes for the facility is provided in Appendix A.

### 2.4 Waste Quantities

- 2.4.1 The proposed soil washing facility will have an annual throughput of 800,000 tonnes.
- 2.4.2 The maximum storage capacity of untreated material will be 500,000 tonnes.
- 2.4.3 The maximum storage capacity of treated material will be 350,000 tonnes.
- 2.4.4 There will be no hazardous waste accepted on site.

## 2.5 Site Layout

- 2.5.1 A site layout plan is provided on Drawing Number ERI/B066441/LAY/01.
- 2.5.2 There will be a designated waste unloading area, treatment area, and storage areas for loose stockpiles. All soil washing activities will be undertaken on the impermeable surface with sealed drainage. Also, there is a weighbridge within the permitted area.

## 2.6 Plant and equipment

- 2.6.1 The following items and machinery may be available for use on site for the basic dry screening and the soil washing plant:
  - Front end loading vehicle (FEL)
  - 360 grab excavator
  - Mobile screener
  - Mobile crusher
  - Tractor bowser
  - Telehandler
  - Hopper
  - Conveyor
  - Over band magnet
  - Log washer
  - Gravel sizing screen
  - Hydrocyclone / filter press.
- 2.6.2 All plant and equipment will be maintained in accordance with the manufacturer's guidance. A planned preventative maintenance programme for all machinery on site will be implemented to ensure that equipment is repaired prior to failure. Staff will only be permitted to operate machinery and undertake activities for which they have received appropriate training. This remains in accordance with Section 2.1 of the Appropriate Measures.

- 2.6.4 Process Flow Diagrams of the processing equipment have been provided within Appendix C to meet Section 5 of the Appropriate Measures.

## 2.7 Site Surfacing/Infrastructure

- 2.7.1 The site surface comprises of made ground aside from the concrete entrance, parking area, and the impermeable surfaced soil washing processing area. All stockpiles will be stored on made ground and the dry recycling activities will be undertaken on made ground. All areas of the site surface, including the impermeable concrete surface, will be visually inspected at least weekly to ensure their continuing integrity and fitness for purpose. The inspection and any necessary maintenance will be recorded. In the event that any damage breaches the integrity of the engineered containment so that it no longer meets the required standards, necessary remedial work will be completed as soon as practicable.
- 2.7.2 Site drainage will be provided in all areas of impermeable surface. The areas of impermeable surface on site comprise of the site entrance, staff parking, and the soil washing treatment area. The site drainage system will be subject to weekly visual inspection to ensure effective operation and integrity of the system. Maintenance will be undertaken to ensure the effective operation and defects will be rectified as soon as possible.
- 2.7.3 Allocated parking for staff and visitors is provided as shown indicatively on Drawing Number ERI/B066441/LAY/01.
- 2.7.4 Allocated storage of fuels and lubricants associated with mobile plant on site is provided.
- 2.7.5 The measures implemented above meet the requirements of Section 6 of the Appropriate Measures.

## 3.0 Waste Acceptance Procedures

### 3.1 Pre-acceptance

- 3.1.1 All waste pre-acceptance procedures will be undertaken in accordance with Section 3.1 of the Appropriate Measures guidance.
- 3.1.2 Prior to accepting waste from new customers, Hanson will obtain and record information on the types of wastes to be accepted, the process producing the waste, predicted quantities, the form of the waste and any potential hazards associated with the wastes.
- 3.1.3 The information provided is reviewed against the site permit and the site-specific requirements relating to incoming waste and discussed with the suitably trained nominated person.
- 3.1.4 If the waste is confirmed to be acceptable at the site, a contractual arrangement is made with the waste supplier. The contract details the criteria for acceptance/rejection of loads delivered to the site for processing.
- 3.1.5 Regular feedback on the quality of waste delivered to the site is provided verbally to each waste supplier.
- 3.1.6 If the waste is deemed unacceptable, the customer will be notified, and the waste will be immediately directed to the quarantine area.
- 3.1.7 The facility will require the following information in written or electronic form prior to acceptance in accordance with Section 3.1 of Appropriate Measures: -
- Details of the waste producer including their organisation name, address and contact details;
  - A description of the waste;
  - The waste classification code (also referred to as a List of Waste (LoW) or European Waste Classification code);
  - The source of the waste (the producer's business and the specific process that has created the waste);
  - Information on the nature and variability of the waste production process;
  - Information about the history of the producer site if it may be relevant to the classification of the waste (for example soils and other construction and demolition arisings from a site contaminated by previous industrial uses);
  - The waste's physical form;
  - The waste's composition (based on representative samples if necessary);
  - A description of the waste's odour and whether it is likely to be odorous; and,



- An estimate of the quantity you expect to receive in each load and in a year.
- 3.1.8 Following the assessment and classification of waste, the site operators will technically assess the suitability of waste with regard to the treatment and storage facilities on site to ensure the conditions of the permit are met. Should the waste comply, the site is permitted to accept the waste.
- 3.1.9 All records relating to the pre-acceptance will be kept for cross-reference a verification at the waste acceptance stage. These records will be kept for a minimum of 3 years.
- 3.1.10 Hanson will reassess the information required at pre-acceptance on an annual basis or if the following apply: -
- Waste changes;
  - Process giving rise to the waste changes; and,
  - Waste received does not to conform to the pre-acceptance information.
- 3.1.11 Following the approval of accepting waste from a customer, the suitably trained nominated person relevant to their position will ensure that visual, physical, and odour-based checks are undertaken upon the receipt of waste. The criteria for non-conformance and rejection of waste will also be recorded, and the member of staff checking the waste can decide on additional parameters of how to check the waste.
- 3.1.12 In addition to waste received by road, there is the potential for Hanson to accept waste and export product via ship arriving to the east of the site on the River Thames.

## 3.2 Acceptance Procedures

- 3.2.1 All waste acceptance procedures will be undertaken in accordance with Section 3.2 of the Appropriate Measures.
- 3.2.2 The suitably trained nominated person will ensure that all characteristics of the waste received matches the information provided during waste pre-acceptance. If the waste does not conform to the pre-acceptance information, site management will confirm if the permit allows it and if it can be handled appropriately. Otherwise, the waste will be rejected.
- 3.2.3 The waste acceptance procedures will follow a risk-based approach in accordance with Section 3.2 of Appropriate Measures, considering:
- The source, nature, and age of the waste.
  - Potential risks to process safety, occupational safety and the environment (e.g. from odour and other emissions).
  - The potential for self-heating.
  - Knowledge of the previous waste holder(s).

- 3.2.4 The suitably trained nominated person will check that the relevant storage areas and treatment processes have the physical capacity to handle the waste. The site will not accept the waste if the capacity is not available, or if it would breach the permit to do so.
- 3.2.5 The waste will be visually checked and verified against pre-acceptance information prior to acceptance onto site. The extent of the visual check is based on the waste type and how it is packaged. In addition to waste received by road, there is the potential for Hanson to accept waste and export product via ship arriving to the east of the site on the River Thames.
- 3.2.6 Clear criteria will be used to identify non-conforming wastes and wastes to be rejected. In the event that these wastes arrive on site, the written procedures for recording, reporting and tracking non-conforming and rejected wastes will be utilised which include:
- Using quarantine storage.
  - Notifying the relevant customer or waste producer.
  - Recording a summary of your justification for accepting non-conforming waste in your electronic (or equivalent) system.
- 3.2.7 The member of staff undertaking waste acceptance checks will be trained to effectively identify and manage any non-conformances in the loads received in order to comply with the Duty of Care and permit conditions.
- 3.2.8 Each load of waste will be weighed on arrival using the weighbridge located to southwest area of the permit boundary to confirm quantities against the accompanying paperwork which will be recorded in Hanson's comprehensive recording system. The nominated person relevant to their position shall then notify the driver to proceed to the relevant area on site.
- 3.2.9 Materials will be tipped directly into the stockpiles or deposited on the made ground surface in front of the stockpiles, where mobile plant will be operated to move the material into the stockpiles.

### 3.3 Waste Rejection

- 3.3.1 All waste rejection procedures will be undertaken in accordance with Section 3.2 and 3.3 of the Appropriate Measures.
- 3.3.2 Any non-conforming loads will either be rejected from the site and redirected to an appropriate permitted facility at the responsibility of the third-party sender or placed in quarantine prior to removal from site. A record will be made in the Site Diary and comprehensive recording system.
- 3.3.3 Any non-conforming waste identified following tipping will either be reloaded into the delivering vehicle and rejected from the site or placed in quarantine prior to removal from site.
- 3.3.4 The quarantine area on site is located indicatively on Drawing ERI/B066441/LAY/01 and is separate from all other storage areas. Quarantined waste will be sheeted to prevent rainfall or wind from mobilising pollutants.

- 3.3.5 Quarantined wastes shall be removed from the site as soon as practicable. If the quarantine waste is infested or odorous, the waste will be removed within 24 hours or less. However, due to the nature of the waste accepted on site, it is not considered that infested or odorous waste will become an issue.
- 3.3.6 Whenever site specific acceptance criteria detailed in the contract agreed as stated in Section 3.1.4 are not met, this will be clearly communicated to the waste supplier and records of the communication shall be kept.
- 3.3.7 The site may cease accepting loads from a particular supplier if contamination has occurred repeatedly and the supplier has not attempted corrective action or, in the composters' opinion, the action taken has been ineffective.

## 3.4 Waste Tracking

- 3.4.1 All waste tracking procedures will be undertaken in accordance with Section 3.4 of Appropriate Measures.
- 3.4.2 The Hanson's comprehensive recording system will be used to hold up-to-date information about the available capacity of different parts of the facility e.g. reception, quarantine, treatment, and storage areas. Hanson's system will ensure that the site has enough waste storage and process capacity for the incoming acceptable waste.
- 3.4.3 Hanson's comprehensive recording system holds all information generated during:
- Pre-acceptance;
  - Acceptance;
  - Non-conforming or rejection;
  - Storage;
  - Repackaging;
  - Treatment; and
  - Removal off site.
- 3.4.4 Records will be created and updated to reflect deliveries, onsite treatment, and despatches. The recording system will operate as a waste inventory and stock control system, including both wastes and end-of-waste materials produced at your facility. This will include the following:
- The date the waste arrived on site;
  - The original producer's details;
  - A unique reference number;

- Waste pre-acceptance and acceptance information;
- The package type and size;
- The intended treatment or disposal route;
- The nature and quantity of wastes held on site;
- Where the waste is physically located on site;
- Where the waste is in the designated recovery or disposal process
- Identifying the staff who have taken any decisions about attempting or rejecting waste streams and who have decided on recovery or disposal options;
- Details that link waste to relevant transfer notes; and
- Details of any non-conformances and rejections, including consignment notes for waste rejected because it is hazardous.

3.4.5 Hanson's comprehensive recording system will report for each LoW code:

- The total quantity of waste present on site at any one time;
- A breakdown of the waste quantities stored pending onsite treatment or awaiting onward transfer;
- Where a batch of waste is located based on a site plan;
- The quantity of waste on site compared with the limits in the management system and permit; and
- The length of time the waste has been on site compared with the limits in the management system and permit.

3.4.6 The system will also report the total quantity of end-of-waste materials on site at any one time, and where the material is located on Drawing ERI/B066441/LAY/01.

3.4.7 Acceptance records will be kept for a minimum of 2 years after the waste has been treated or removed off site.

## 4.0 Storage Activities

All storage activities will be undertaken in accordance with Section 4 of the Appropriate Measures.

### 4.1 Storage Capacity

4.1.1 The maximum storage capacities of material on site at any one time is detailed in Table 2 below:

**Table 2: Storage Capacities**

Specified Waste Management Operation	Permitted Waste Types	Capacity Limits on Specified Waste Management Operations
R3: Recycling/reclamation of organic substances which are not used as solvents	All waste types permitted under permit	Maximum storage capacity of the facility to be 850,000 tonnes.  There will be no hazardous waste accepted on site.
R5: Recycling/reclamation of other inorganic materials		
R13: Storage of waste consisting of materials for submission to any operation numbered R1 to R12, but excluding temporary storage pending collection on the site where it is produced		

4.1.2 There will be clearly designated areas for the storage and treatment processes within the soil washing facility. All soil washing treatment will be undertaken on an impermeable surface with a sealed drainage system. The dry recyclable processing and stockpile storage will occur on made ground.

### 4.2 Storage and Waste Handling Procedures

4.2.1 All storage and waste handling on site will be undertaken in accordance with Section 4 of the Appropriate Measures.

4.2.2 Waste on site will be stored and handled in a way that ensures prevention and minimisation of pollution risks.

4.2.3 The handling of waste will be minimised due to the efficient location of the waste storage areas and waste treatment areas on site. The location of these areas is shown on Drawing Number ERI/B066441/LAY/01.

- 4.2.4 Waste handling will be undertaken by competent staff with the assistance of mobile plant. All waste storage areas are located securely within the security protected area of the facility to restrict unauthorised access and vandalism.
- 4.2.5 All waste accepted on site comprises of non-hazardous soils, and therefore the first-in-first-out (FIFO) procedure does not need to be followed.
- 4.2.6 Storage areas, containers and infrastructure will be inspected daily to ensure there is no loss of containment. Written records of all inspections will be kept, and any spillages of waste will also be logged.
- 4.2.7 Due to the nature of the waste accepted on site, segregation procedures do not apply.

## 5.0 Waste Treatment

### Soil Washing Facility

- 5.1.1 Upon arrival, all loads will be inspected by a suitably trained nominated person and any large or nonconforming materials will be removed prior to treatment. All stockpiles on site will be stored in a loose form. All soil washing activities will be undertaken on hard standing.
- 5.1.2 Materials will be fed into a hopper with the assistance of mobile plant and will then travel along a conveyor, at which point any small pieces of scrap metal which may be present within the waste loads will be removed using an overband magnet.
- 5.1.3 Any oversize materials (particles 100mm - 150mm) will be removed via a screener subject to materials feed.
- 5.1.4 The remaining waste material, varying in size depending on market demands, will then travel along a log washer where it will be sprayed with wash water. After passing along the log washer, the clean waste materials will be separated into smaller fractions via a gravel sizing screen.
- 5.1.5 The sand and silt fraction together with most of the water passes through screen and enters a sump from where it is pumped into a hydrocyclone or plate press, which will separate the sand from any contaminants. The water together with the silt and clay sized particles (together with any associated contaminants) will be forwarded from the hydrocyclone to the Siltbuster Water Treatment Plant. The water will then be recirculated back into the washing process.
- 5.1.6 Outputs from the Soil Washing Facility will be classed as products. However, any waste from the site will be categorised as set out in WM3 in accordance with Section 5.1 of the Appropriate Measures.

### Physical Treatment of Non-Hazardous Waste Facility

- 5.1.7 Treatment undertaken under this activity within the Environmental Permit will consist of sorting, separation, screening, crushing, and blending of waste for recovery as a soil, soil substitute or aggregate.
- 5.1.8 Vehicles delivering waste loads will enter the site via the weighbridge, where the waste acceptance procedures mentioned above will be undertaken. If the waste is deemed acceptable, the driver will be directed to the waste treatment area as shown on the Site Layout Plan (Drawing Number APP/B066441/LAY/01).
- 5.1.9 Waste will only be handled by competent staff.
- 5.1.10 A variety of waste treatment methods will be applied on site which is subject to the nature of the waste. Depending on the particle size of the material, a crusher may be employed to crush the waste and processed via a screener a second time to reduce the particle size of the material.

Alternatively, wastes that originally comprise finer particles will not require crushing and therefore will only be processed via a screener.

- 5.1.11 Following treatment, the waste will be unloaded into clearly defined stockpiles located adjacent the waste treatment area to the north of the site. Processed materials will be stored on the existing site hardstanding.
- 5.1.12 Products produced which are classified as inert in advance of receipt, and which are identified within the WRAP Quality Protocol for Aggregates from Inert Waste, will be treated in accordance with this guidance. The resultant materials will be tested in accordance with the WRAP Quality Protocol in order to determine whether they have met end of life test and as such cease to be classified as waste. These materials will be stored on hardstanding.
- 5.1.13 The results of the testing will determine the destination of the material in accordance with the End of Waste Protocol.
- 5.1.14 All treatment and storage activities will occur on made ground.
- 5.1.15 Outputs from the Physical Treatment Facility will be classed as products. However, any waste from the site will be categorised as set out in WM3 in accordance with Section 5.1 of the Appropriate Measures.
- 5.1.16 All treatment activities will be undertaken in accordance with Section 5 of the Appropriate Measures. The site will have accurate and up-to-date written details of the treatment and abatement and control equipment utilised. Information about the characteristics of the waste to be treated and the waste treatment processes include:
- Simplified process flow sheets that show the origin of the emissions;
  - Diagrams of the main plant items where they have environmental relevance, for example, storage, tanks, treatment and abatement plant design;
  - Details of physical processes e.g. separation, compaction, shredding, heating, cooling or washing;
  - An equipment inventory, detailing in plant type and design parameters;
  - Waste types to be subjected to the process;
  - The control system philosophy and how the control system incorporates environmental monitoring information;
  - Process flow diagrams (Provided within Appendix C of the Operating Techniques);
  - The hourly processing capability of waste treatment equipment; and
  - Summary of operating and maintenance procedures.



5.1.17 Hanson will maintain details of the measures to be taken during abnormal operating conditions to make sure they continue to comply with permit conditions. Abnormal operating conditions include the following: -

- Unexpected releases;
- Start-up;
- Momentary stoppages; and,
- Shutdown.

## 6.0 Emissions Control

6.1.1 All emissions control procedures will be undertaken in accordance with Section 6 of the Appropriate Measures.

### 6.2 Point Source Emissions to Air

6.2.1 In accordance with Section 6.2 of the Appropriate Measures, the site will characterise the emissions to air sufficiently to ensure the chosen abatement systems are effective.

6.2.2 There are no point source emission to air for dust however an appropriate combination of abatement techniques will be in place for fugitive dust emissions. The dust abatement equipment on site includes rain guns, mobile mister, and tractor bowser.

6.2.3 Measures will be implemented on site to further prevent the risk of a potential adverse impact on sensitive receptors. Such measures are provided in the following management plans: -

- Dust Management Plan (Appendix E of the Environmental Permit Application);
- Environmental Risk Assessment (Appendix D of the Environmental Permit Application); and
- Noise Management Plan (Appendix F of the Environmental Permit Application).

### 6.3 Fugitive Emissions to Air (Including Odour)

6.3.1 In accordance with Section 6.3 of the Appropriate Measures, fugitive emissions to air, including dust, mud, litter, odour and noise and vibration will be prevented and minimised.

6.3.2 Fugitive emissions to air have been identified as a potential environmental risk resulting from the proposal, as detailed in the Environmental Risk Assessment that accompanies this application as Appendix D.

6.3.3 An appropriate maintenance programme will be in place to cover all buildings, plant and equipment. The programme will include:

- A leak detection and repair programme to identify and mitigate any fugitive emissions of organic compounds from treatment plant and associated infrastructure;
- Regular inspection and cleaning of all waste storage and treatment areas and equipment (including conveyor belts);

6.3.4 Weather conditions will be logged, including temperature, wind speed and direction, and description of any precipitation to identify when dispersion conditions are poor.

6.3.5 Measures will be implemented on site to further prevent the risk of a potential adverse impact on sensitive receptors. Such measures are provided in the following management plans: -

- Dust Management Plan (Appendix E of the Environmental Permit Application);
- Environmental Risk Assessment (Appendix D of the Environmental Permit Application); and
- Noise Management Plan (Appendix F of the Environmental Permit Application).

**6.3.6** It is anticipated that, due to the nature of the waste accepted on site, the risk of odour is minimal. Therefore, as determined within the Enhanced Pre-application Advice (EPR/AP3721SW/P001), an Odour Management Plan need not accompany the application.

## 6.4 Pests

6.4.1 Due to the nature of wastes accepted on site, the risk of pests is minimal.

6.4.2 In accordance with Section 6.6 of the Appropriate Measures, pests have been identified as a potential environmental risk resulting from the proposal, as detailed in the Environmental Risk Assessment that accompanies this application as Appendix D.

## 6.5 Noise and Vibration

6.5.1 In accordance with Section 6.3 of the Appropriate Measures, a Noise Management Plan (NMP) has been prepared to describe the measures that will be in place to minimise the risk of noise from the proposed activities. The NMP is provided as Appendix F of the Environmental Permit application.

## 6.6 Fugitive Emissions to Land and Water

6.6.1 Fugitive emissions to land and water have been identified as a potential environmental risk resulting from the proposal, as detailed in the Environmental Risk Assessment that accompanies this application as Appendix D.

## 7.0 Process Efficiency

### 7.1 Energy Efficiency

7.1.1 This Environmental Permit Variation Application does not include proposals for an installation, therefore Section 8 of the Appropriate Measures does not apply.

7.1.2 The energy requirements of the facility are very low and are mainly associated with outdoor lighting within the permitted area. In line with the Environmental Management System (EMS), basic energy saving measures are adopted and continually reviewed. This includes measures such as:

- Efficient use of plant to avoid unnecessary ignition;
- Plant to be switched off when not in use; and,
- Regular maintenance of all plant.

### 7.2 Waste Minimisation, Recovery and Disposal

7.2.1 It is crucial to note that the site outputs comprise of product only.

7.2.2 As required under the Environmental Permit, Hanson will have a programme of waste minimisation audits to ensure that an audit is carried out at least once every 4 years. Audits will include the following: -

- Methodology used;
- Analysis of raw materials used;
- Assessment of opportunities for reduction; and,
- An action plan for improvements.

7.2.3 The audit will be submitted to the EA within 2 months of completion.

7.2.4 Data will be incorporated for each principal stage of the operation, which will enable the calculation of the actual mass balance of the operation. This will then be used to assess opportunities to improve efficiency and reduce waste production. Hanson adopts the waste hierarchy to reach the requirement of waste minimisation.

## 8.0 Accident Management

- 8.1.1 All necessary measures will 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 that accompanies this application.
- 8.1.2 It is considered that the most significant risk associated with the site is the unauthorised acceptance of non-compliant waste types. The waste acceptance procedures listed in Section 2 of this document aim to control and minimise this risk.

### 8.2 Fire Control

- 8.2.1 Due to the non-combustible nature of the waste accepted at the site, a Fire Prevention Plan is not required to support the application.
- 8.2.2 Firefighting equipment of a suitable type shall be kept at appropriate locations as advised by the Health and Safety Manager or the local Fire Service. All firefighting equipment shall be kept in good condition, unobstructed and be serviced by a competent person. The site will be designated as a “no smoking area” and signed accordingly.
- 8.2.3 Any fire on the site will be treated as an emergency and will be extinguished at the earliest opportunity. If necessary, the Fire Service will be summoned. Any incidents of fire will be reported to the EA and recorded in the Site Diary.

### 8.3 Maintenance Procedures

- 8.3.1 A Planned Preventative Maintenance programme (PPM) will be put in place to minimise the risk to safety, health, and the environment by ensuring that all appropriate items and elements within the site are serviced and inspected on a regular basis or to the manufacturers’ maintenance schedules.
- 8.3.2 Details of faults, breakdowns and repairs are documented, and records are maintained at the site office. Faults and breakdowns will be investigated, and the service schedule revised if necessary.

### 8.4 Spillage Procedure

- 8.4.1 There will be no waste oils accepted on site.
- 8.4.2 The most likely source for spillages will be from spillages of fuel/oil associated with site plant or vehicles.
- 8.4.3 In the event of a spillage of fuel/oil from site plant or vehicles, the following procedures will be implemented:
- Clear The Area Straight Away;
  - Lay Absorbent Granules Over The Spill To Soak Up The Spillage;

- Use Personal Protective Equipment (PPE) Provided On Site If Required;
- Once The Liquid Has All Been Absorbed Use A Shovel To Clear Up The Waste, Put It In A Plastic Sack And Then Place It In The Container For Non-Compliant Waste For Disposal At A Suitably Permitted Facility; And
- A Record Of The Spill Incident And Remedial Action Taken Will Be Recorded In The Site Diary.

8.4.4 Spillage kits will be maintained on site in order to respond to any spillage incident. The spillage kits will be stored strategically around the site to ensure their availability.

## 9.0 Site Management

### 9.1 Technical Competence

- 9.1.1 The nominated member of staff will possess the required level of technical competence which is provided as part of Appendix C of the Environmental Permit Application.
- 9.1.2 All site operatives will be adequately trained in health, safety and environmental issues. Staff will only be permitted to undertake activities that they have been trained for. They will be made aware of the procedures they must follow in the event of an accident or incident and will be able to access any relevant documentation that they may require. All training, experience and qualifications of staff will be noted, and these records will be maintained and kept up to date.
- 9.1.3 Staff competence will be managed in accordance with the Staff Competency and Training Plan that forms part of the site's management system.

### 9.2 Environmental Management System

- 9.2.1 As noted in the EA's 'Develop a Management System: Environmental Permits' guidance, all permitted facilities are required to have an Environmental Management System (EMS) to describe the procedures in place to minimise the risk of pollution from the activities covered in the environmental permit.
- 9.2.2 Hanson have an Environmental Management System in place which meets the requirements of the EA's 'Develop a management system: environmental permits' guidance. A summary of the EMS is provided in Appendix C.
- 9.2.3 All site operatives would be 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.

## 10.0 MANAGEMENT OF DOCUMENTATION

### 10.1 Record Keeping

- 10.1.1 Hanson have an EMS which includes procedures for the management of documentation.
- 10.1.2 A record will be kept that provides details on all waste inputs at the site. This will include details on waste types, quantities, and the origin. This will be provided to the EA at three-monthly intervals, within one month of the end of each period. A record of basic waste characterisation and any compliance testing or on-site verification will be maintained in the site office.
- 10.1.3 A site diary style recording system will be kept in the site office at all times, and this will be updated daily. The diary will be used to record any accidents, incidents, or complaints. This will provide an ongoing record throughout the period of operation at the site, and this will enable any investigative or corrective action that may be required.
- 10.1.4 The Environmental Permit and other documents containing information regarding the operation of the site will be kept in a convenient location, allowing access for any person that may be working at or visiting the site.



## 11.0 INCIDENT AND NON-CONFORMANCES

- 11.1.1 Hanson have procedures for investigating and recording any incidents and non-conformances at the site, and for taking any corrective action. Hanson have an EMS which this includes procedures for handling incidents and non-conformances.
- 11.1.2 The following types of incidents will require investigation:-
- Malfunction, breakdown or failure of plant and equipment;
  - Deviation from site procedures and operating techniques;
  - Near misses; and,
  - Complaints from external parties.
- 11.1.3 All staff will be trained to detect and report any such occurrences. Procedures will be taken to allow operations to resume and preventative measures may be put in place to ensure that the incident does not reoccur.

## Drawings

ERI/B066441/LAY/01 – Site Layout Plan

ERI/B066441/PER/01 – Permit Boundary Plan

## Appendix A - Waste Types

**Table A1: Soil Washing Waste Types**

<b>EWG Code</b>	<b>Description</b>	<b>Restriction</b>
<b>01</b>	<b>WASTE RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>	
<b>01 04</b>	<b>Wastes from physical and chemical processing of non-metalliferous minerals</b>	
01 04 08	Waste gravel and crushed rocks other than those mentioned in 04 04 06	
01 04 09	Waste sand and clay	
01 04 13	Wastes from stone cutting and sawing other than those mentioned in 01 04 07	
<b>10</b>	<b>WASTES FROM THERMAL PROCESSES</b>	
<b>10 11</b>	<b>Wastes from manufacture of glass and glass products</b>	
10 11 12	Waste that as waste glass other than those mentioned in 10 11 11	
<b>10 12</b>	<b>Wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>	
10 12 08	Waste ceramics, brick, tiles and construction products (after thermal processing)	
<b>10 13</b>	<b>Wastes from manufacture of cement, lime and plaster and articles and products made from them</b>	
10 13 14	Waste that as waste concrete and concrete sludge	
<b>17</b>	<b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>	
<b>17 01</b>	<b>Concrete, bricks, tiles and ceramics</b>	
17 01 01	Concrete	Selected C&D waste only -
17 01 02	Bricks	Selected C&D waste only
17 01 03	Tiles and ceramics	Selected C&D waste only
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	Selected C&D waste only. Metal from reinforced concrete must have been removed.
<b>17 03</b>	<b>Bituminous mixtures, coal tar and tarred products</b>	
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01	
<b>17 05</b>	<b>Soil (including excavated soil from contaminated sites), stones and dredging spoil</b>	
17 05 04	Soil and stones other than those mentioned in 17 05 03	Excluding topsoil, peat; excluding soil and stones from contaminated sites
17 05 06	Dredging spoil other than those mentioned in 17 05 05*	
17 05 08	Track ballast other than those mentioned in 17 05 07*	
<b>17 09</b>	<b>Other construction and demolition wastes</b>	
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	

<b>19</b>	<b>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</b>	
<b>19 01</b>	<b>Wastes from incineration or pyrolysis of waste</b>	
19 01 02	Ferrous materials removed from bottom ash	
19 01 11*	Waste that as bottom ash and slag containing hazardous substances	
19 01 12	Bottom ash and slag other than those mentioned in 19 01 11	
19 01 14	Fly ash other than those mentioned in 19 01 13	
19 01 16	Boiler dust other than those mentioned in 19 01 15	
19 01 18	Pyrolysis wastes other than those mentioned in 19 01 17	
19 01 19	Sands from fluidized beds	
<b>19 02</b>	<b>Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)</b>	
19 02 06	Waste that as sludges from physico/chemical treatment other than those mentioned in 19 02 05	
<b>19 12</b>	<b>Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>	
19 12 09	Minerals only	Wastes from the treatment of waste aggregates that are otherwise naturally occurring minerals. Does not include fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard.
19 12 12	Other wastes (including mixtures of materials) from other mechanical treatment of wastes other than those mentioned in 19 12 11	Including, but not limited to, IBAA
<b>19 13</b>	<b>Wastes from soil and groundwater remediation</b>	
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01	
<b>20</b>	<b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS</b>	
<b>20 02</b>	<b>Garden and park wastes (including cemetery waste)</b>	
20 02 02	Soil and stones	Only from garden and parks waste; excluding topsoil, peat.

Table A2: Physical Treatment Facility Waste Types

EWC Code	Description
<b>01</b>	<b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>
<b>01 04</b>	<b>Wastes from physical and chemical processing of non-metalliferous minerals</b>
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	Waste sand and clays

<b>10</b>	<b>WASTES FROM THERMAL PROCESSES</b>	
<b>10 01</b>	<b>Wastes from power stations and other combustion plants (except 19)</b>	
10 01 01	Bottom ash and slag only	
10 01 02	Pulverised fuel ash only	
<b>10 11</b>	<b>Waste from manufacture of glass and glass products</b>	
10 11 12	Clean glass other than those mentioned in 10 11 11	
<b>10 12</b>	<b>Wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>	
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processes)	
<b>10 13</b>	<b>Wastes from manufacture of cement, lime and plaster and articles and products made from them</b>	
10 13 14	Waste concrete only	
<b>15</b>	<b>WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED</b>	
<b>15 01</b>	<b>Packaging (including separately collected municipal waste packaging)</b>	
15 01 07	Clean glass only	
<b>17</b>	<b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>	
<b>17 01</b>	<b>Concrete, bricks, tiles and ceramics</b>	
17 01 01	Concrete	
17 01 02	Bricks	
17 01 03	Tiles and ceramics	
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	
<b>17 02</b>	<b>Wood, glass and plastic</b>	
17 02 02	Clean glass only	
<b>17 03</b>	<b>Bituminous mixtures, coal tar and tarred products</b>	
17 03 02	Road base and road planings (other than those containing tar) only	
<b>17 05</b>	<b>Soil (including excavated soil from contaminated sites), stones and dredging spoil</b>	
17 05 04	Soil and stones other than those mentioned in 17 05 03	
17 05 08	Track ballast, soil and stones other than those mentioned in 17 05 07	
<b>19</b>	<b>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</b>	
<b>19 12</b>	<b>Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>	
19 12 12	Waste that as other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	Including but not limited to IBAA
<b>20</b>	<b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS</b>	
<b>20 01</b>	<b>Separately collected fractions (except 15 01)</b>	
20 01 02	Clean glass only	
<b>20 02</b>	<b>Garden and park wastes (including cemetery waste)</b>	
20 02 02	Soil and stones	



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## Appendix B – ISO 14001 Certificate



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## Appendix C – Process Flow Diagrams