Bleak Hill I

784-B031732

Operating Techniques

Environmental Permit Application

CEMEX UK Materials Limited

January 2024

Document prepared on behalf of Tetra Tech Environment Planning Transport Limited.
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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, CEMEX UK Materials Limited (CEMEX).

1.1.3 This document relates to CEMEX's Hamer Warren Quarry site off Harbridge Road, Ringwood, BH24 3PX.

1.1.4 CEMEX are seeking to apply for a separate environmental permit which will allow the operation of a soil washing facility that will process a maximum of 250,000 tonnes of non-hazardous soils.

1.2 SITE SETTING

1.2.1 The site forms part of the wider Hamer Warren site and is located approximately 1.5km southeast of Alderholt in Hampshire and is centred at approximate National Grid Reference (NGR) SU 13076 11041. The application site is detailed on Drawing Number CEM/B031732/PER/01.

1.2.2 The site is an existing landfill site known as Bleak Hill I; the landfill is regulated under a separate environmental permit (reference EPR/FP3498SZ and EAWML 21000). The south, east and west of the site are bordered by rural land and the north of the site is bordered by Bleak Hill II and Bleak Hill III. All three of the Bleak Hill sites are operated by CEMEX. The site is also located approximately 1.3km west of the Avon Valley which is designated as a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Ramsar.

1.2.3 Access to the site is achieved via the Bleak Hill I access road off Alderholt Road.

2.0 OPERATING PROCEDURES

2.1 OPERATING HOURS

2.1.1 The operating hours of the site are: -

- Monday to Friday: 07:00 – 18:00; and,
- Saturday: 08:00 – 13:00.

2.1.2 There would be no work on Sundays or Bank and National Holidays.

2.2 PERMITTED ACTIVITIES

2.2.1 The proposal entails the operation of a soil washing facility that will process a maximum of 250,000 tonnes per annum of non-hazardous soils.

2.2.2 It is considered that the proposed activities on the site will fall under the following R/D codes: -

Table 1: Proposed Permitted 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)

2.3 WASTE TYPES

2.3.1 The following waste types will be accepted at the site for treatment.

Table 2: Proposed Waste Types

EWC Code	Description	Restriction
01	**WASTE RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**	
01 04	**Wastes from physical and chemical processing of non-metafillerous minerals**	
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	
10	**WASTES FROM THERMAL PROCESSES**	
10 12	**Wastes from manufacture of ceramic goods, bricks, tiles and construction products**	
10 12 08	Waste ceramics, brick, tiles and construction products (after thermal processing)	
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**	

17 01	**Concrete, bricks, tiles and ceramics**	
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.
17 03	**Bituminous mixtures, coal tar and tarred products**	
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01	
17 05	**Soil (including excavated soil from contaminated sites), stones and dredging spoil**	
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*	
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 12	**Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**	
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 13	**Wastes from soil and groundwater remediation**	
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01	
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**	
20 02	**Garden and park wastes (including cemetery waste)**	
20 02 02	Soil and stones	Only from garden and parks waste; excluding topsoil, peat.

2.4 WASTE PRE – ACCEPTANCE PROCEDURE

2.4.1 Waste will not be accepted without a prior booking. When an enquiry is made the following information is requested from the potential customer: -

- The process producing the waste;
- The quantity of the waste;
- Chemical/radiological analysis of the waste (if applicable);
- The form the waste takes (i.e. solid, liquid, sludge, etc.);
- Any hazards associated with the waste;
- Any specific handling/storage requirements; and,
- An EWC code.

2.4.2 CEMEX will always request a waste characterisation or testing report from the holder of the waste. Photographs of the materials may be provided to enable verification during the waste acceptance stage. The reports (and photos if provided) are reviewed by qualified members of staff to ensure that the waste is suitable for the treatment process and compliant with the conditions of the Environmental Permit.

2.4.3 On occasion, if required, CEMEX will go to the site where the waste is produced/stored and obtain representative samples for chemical analysis by an accredited laboratory.

2.4.4 CEMEX will also require an estimation of quantities to be delivered so that they can ensure that there will be sufficient capacity for waste storage and processing.

2.4.5 By obtaining all of the information above, CEMEX will be able to will assess the suitability of the waste for treatment.

2.5 ACCEPTANCE PROCEDURE

2.5.1 The on-site acceptance procedure is followed to ensure that the waste delivered to the site conforms to the information provided at the pre-acceptance stage. The majority of the waste arriving at the site will be pre-booked which will ensure that capacity is available on site prior to arrival and that the waste is compliant with the conditions of the permit and suitable for the treatment process.

2.5.2 Waste will only be accepted if there is sufficient capacity. The delivery of waste will always be planned in advance with the delivery date agreed by CEMEX and the waste holder.

2.5.3 Waste will only be accepted from licensed waste carriers.

2.5.4 Upon arrival at the site, all waste delivery vehicles will be directed to the site's weighbridge. The weighbridge will be calibrated, and the site will always be manned during operational hours. Drivers will report to the weighbridge office and provide documents detailing the source and description of the waste.

2.5.5 The documentation is checked on arrival and if it is incorrect or the waste does not match the written description then the waste will be rejected.

2.5.6 Where possible, loads will be visually inspected prior to unloading to ensure compliance with the permit.

2.5.7 The following details will be recorded by the member of staff receiving the waste: -

- The date and time of delivery of the load;
- The origin of the waste;

- The quantity and characteristics of the waste;
- The producer; and,
- Details and description of the vehicle delivering the waste, the driver's signature and the operator of the vehicle.

2.5.8 Non-hazardous wastes must be accompanied by a waste transfer note.

2.5.9 On site verification will take place to confirm: -

- The identity of the waste;
- The description of the waste;
- Consistency with pre-acceptance information and the treatment method; and,
- Compliance with the permit.

2.5.10 A note would be made in the site diary of any incidents involving unauthorised waste, and a record of the rejected waste maintained.

2.5.11 All loads will be visually inspected when unloaded into the appropriate storage bay to ensure that the whole load is compliant with the conditions of the permit and with the paperwork provided by the waste producer.

2.5.12 In the event that unpermitted wastes are inadvertently delivered to the site, the unauthorised waste will be loaded back on to the vehicle that discharged it, if possible and safe to do so. If this is not possible, then the unpermitted waste will be stored on the site in the designated quarantine area located within the permitted area. Such wastes would then be removed from the site as soon as practicable, and in any case no later than 48 hours after receipt.

2.6 WASTE REJECTION PROCEDURES

2.6.1 Any non-conforming loads will either be rejected from the site and redirected to an appropriate permitted facility or placed in quarantine prior to removal from site. A record will be made in the Site Diary.

2.6.2 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.

2.6.3 Quarantined wastes shall be removed from the site within 7 days and the maximum quantity of wastes kept in quarantine shall not exceed 4.6m^3.

2.6.4 Whenever site specific acceptance criteria detailed in the contract are not met, this will be clearly communicated to the waste supplier and records of the communication shall be kept.

2.6.5 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 composter's opinion, the action taken has been ineffective.

2.7 WASTE QUANTITIES

2.7.1 The maximum annual tonnage at the site will not exceed 250,000 tonnes per year.

2.8 WASTE STORAGE

2.8.1 There will be clearly defined areas for waste storage and treatment at the site.

2.8.2 There will be a maximum storage capacity of 50,000 tonnes of untreated material.

2.8.3 There will be a further maximum storage capacity of 30,000 for treated material.

2.8.4 All soils will be stored in designated bays and will be kept sheeted at all times to prevent dust. The sheeting will be removed during receipt of wastes and removal of wastes from a stockpile for treatment purposes. At all other times, waste storage areas will be sheeted.

2.8.5 As in line with guidance acquired from SR10 number 12, as the site is located outside source protection zones 1 and 2, and falls under the approved waste types, all pre and post storage will be undertaken outside on hard standing. Process Description

2.8.6 Materials will be fed into a hopper using a loading shovel 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.

2.8.7 Any oversize materials (particles >40mm) will be removed via a screener.

2.8.8 The remaining waste material (particles between 3mm and 40mm in size) 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 two fractions (3mm to 25mm and 25mm to 40mm) via a gravel sizing screen.

2.8.9 Water containing particles smaller than 3mm, such as sands and silt, and floatable solid organic matter (such as leaves, sticks etc.) then passes over screen which separates organic matter larger than 3mm from the sand and silt fraction. 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, 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.

2.9 OUTPUTS

2.9.1 CEMEX will have in place an appropriate sampling and analysis protocol and verification procedure with separate testing regimes depending on the intended recovery/disposal options. This will ensure that all materials are suitable for the recovery/disposal option chosen and are compliant with the necessary standards and regulatory requirements.

2.9.2 The aim of the soil washing process is to create recycled aggregates which are suitable for use in construction projects. CEMEX will designate a part of the site for the storage of the aggregate products pending sale in order to prevent the contamination of these materials with waste materials. Materials will be tested on a batch-by-batch basis to ensure that contamination is being sufficiently removed from the materials.

2.9.3 If the testing of the recycled aggregates reveals that the materials are not compliant with the relevant standard, then the materials may be reprocessed, or they will be transferred off site to an appropriately authorised facility for further treatment or disposal. If two or more batches of aggregates are tested and found to be incompliant for relevant standards, the wash waters within the water treatment system will be tested and may be removed off site to be replaced by clean water.

2.9.4 If the materials are required to be transferred off site for disposal at a landfill site, then a WAC test would be required.

3.0 REGULATED FACILITY INFRASTRUCTURE

3.1 WEIGHBRIDGE

3.1.1 Weighbridge facilities will be located on site which will remain from the landfill site which was operated by CEMEX (EPR/FP3498SZ and EAWML 2100, Bleak Hill I & II). It is proposed that CEMEX will use these over the course of operations at the soil washing facility. The weighbridge will be maintained according to the manufacturer's specifications.

3.2 SECURITY

3.2.1 The soil washing facility will be situated on an existing landfill site (known as Bleak Hill I) which is operated by CEMEX. The boundary of which is shown on Drawing Number CEM/B031732/PER/01.

3.2.2 As part of the prior mineral extraction and restoration operations, the site will benefit from barriers that satisfy the requirements of the Quarry Regulations 1999 to prevent unauthorised access to the site. Such barriers will comprise a combination of bunds, fencing and lockable gates.

3.2.3 The site will be secure from public access by lockable gates at the site entrance.

3.2.4 All vehicles delivering waste to the site must report to the site office. Upon request, they may have to provide evidence of Registration as Waste Carriers. All other visitors to the site must sign the Visitors Book before proceeding onto the site and sign out prior to leaving.

4.0 EMISSIONS CONTROL

4.1 POINT SOURCE EMISSIONS TO AIR

4.1.1 There will be no point source emissions to air as a result of this application.

4.2 POINT SOURCE EMISSIONS TO GROUNDWATER

4.2.1 There will be no point source emissions to groundwater as a result of this application.

4.3 POINT SOURCE EMISSIONS TO SURFACE WATER AND SEWERS

4.3.1 There will be no point source emissions to surface water or sewer as a result of this application.

4.4 FUGITIVE EMISSIONS

4.4.1 Fugitive emissions 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.

5.0 ACCIDENT MANAGEMENT

5.1 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.

5.2 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.

5.2 FIRE CONTROL

5.2.1 Fires from the acceptance of inert waste are considered unlikely due to the nature of the waste material. However, the operation and/or maintenance of mobile plant do pose a potential fire hazard if precautions are not taken.

5.2.2 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. Where appropriate, mobile plant will be fitted with firefighting equipment. All firefighting equipment shall be kept in good condition, unobstructed and be serviced at least once a year by a competent person. The site will be designated as a “no smoking area” and signed accordingly.

5.2.3 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.

5.3 SPILLAGE PROCEDURE

5.3.1 Material accepted at the site will be inert. The most likely source for spillages will be from fuel tanks or spillages of fuel or oil associated with plant and machinery.

5.3.2 In the event of a spillage of fuel/oil from site machinery 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.

5.3.3 Spillage kits will be maintained on site in order to respond to any spillage incident. The spillage kits will be kept securely in the site office.

5.4 MAINTENANCE PROCEDURES

5.4.1 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.

5.4.2 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.

6.0 SITE MANAGEMENT

6.1 TECHNICAL COMPETENCE

6.1.1 The Site Manager possesses the required level of technical competence (see Appendix A for the Certificate of Technical Competence).

6.1.2 CEMEX have a site specific, written Management System in place which is compliant with the requirements of relevant EA guidance.

6.1.3 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.

6.2 ENVIRONMENTAL MANAGEMENT SYSTEM

6.2.1 As noted in the EA's 'Develop a Management System: Environmental Permits' guidance, all permitted facilities are required to have an EMS to describe the procedures in place to minimise the risk of pollution from the activities covered in the environmental permit. In addition, the BAT conclusion for Waste Treatment includes a requirement for an EMS.

6.2.2 CEMEX have an EMS in place meets the requirements of ISO14001 and the EA's 'Develop a management system: environmental permits' guidance. A copy of the ISO 14001 certificate is provided in Appendix B.

6.2.3 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.

7.0 MANAGEMENT OF DOCUMENTATION

7.1 RECORD KEEPING

7.1.1 CEMEX have a Management System which is compliant with ISO 14001, and this includes procedures for the management of documentation.

7.1.2 A record will be kept that provides details on all wastes deposited at the site. This will include details on waste types, quantities, and the date of deposition. 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.

7.1.3 A site diary will be kept in the site office, 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.

7.1.4 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.

8.0 INCIDENT AND NON-CONFORMANCES

8.1 CEMEX have procedures for investigating and recording any incidents and non-conformances at the site, and for taking any corrective action. CEMEX has an EMS which is compliant with ISO 14001, and this includes procedures for handling incidents and non-conformances.

8.2 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.

8.3 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

CEM/B031732/PER/01 - Environmental Permit Boundary

CEM/B031732/LAY/01 – Layout Plans

APPENDIX A - CERTIFICATES OF TECHNICAL COMPETENCE

APPENDIX B – ISO 14001 CERTIFICATE