Project details	Environmental Permit Variation Application – EPR BB3103MJ/A002 Grundon Sand and Gravel Limited – Kennetholme Quarry Recycling Facility
Applicant details	Grundon Sand and Gravel Limited Thames House Oxford Road Benson Wallingford Oxfordshire OX10 6 LX
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1 Introduction

Grundon Sand and Gravel Limited (the 'applicant') has requested that Reva Environmental Ltd (the 'agent') prepares an Environmental Permit (EP) variation application, for its Kennetholme Quarry Recycling Facility on Colthrop Lane, Thatcham, Berkshire, RG19 4NT. The centre of the site is as NGR SU 54098 66170.

The facility operates in accordance with a Tier 2 bespoke EP (a Waste Operation) for the treatment of inert waste to produce soil, soil substitutes and aggregate up to 15,000 tonnes per year.

The existing EP boundary is limited to a small area of the land ownership, in the centre portion of the wider site boundary. The move to using the existing virgin aggregate processing plant for waste, the addition of the wash plant (and WTP for the wash water), and the need for increased storage for incoming (untreated) wastes (up to 10,000 tonnes at any one time), requires the EP boundary to be amended.

Question 3d of Part C2 of the EA new bespoke installation application form requires information to be provided about the Environmental Management System (EMS), including confirmation of what, if any, standard it is certified to. Grundon operates an integrated management system (IMS) that is certified by BSi to ISO 14001 for environmental management. The applicant also holds certification for PAS 99 (integrated management), ISO 9001 (quality management), ISO 45001 (occupational health and safety management), ISO 50001 (energy management), and CMS (competence management system scheme). All locations within Grundon operate to this certified system, including the Kennetholme site.

This EMS Summary follows the headings in the EA guidance 'develop a management system: environmental permits', signposting to the location of information within the Grundon IMS.

2 Site Infrastructure Plan

A number of site plans have been produced for the site, primarily for the purposes of the EP variation application. These are considered to form part of the IMS and include:

- Drawing DG/QO/Col/Con36/01: Site Layout Plan, dated March 2024. This shows the location of the aggregate processing plant, the proposed waste plant and WTP, and the waste storage area.
- Drawing DG/QO/Col/Con36/02A: Processing Plant Layout Plan, dated March 2024. This details the elements of the processing plant, wash plant and WTP.
- Drawing DG/QO/Col/Con36/02B: Processing Plant Layout Plan, dated March 2024. This is a simplified version of 02A above.
- Drawing DG/QO/Col/Con36/03: Processing Plant Elevation, dated March 2024.
- Drawing E2300-PGA-001-01 to 07: Plant Layout and Elevation Plans, dated June 2025. These are a set of detailed design drawings for the processing plant, wash plant and WTP.

In addition to this, a separate plan is kept on site that identifies the location of mains water and electricity supply to the site, routes around the site and the location of any isolating switches, stop valves etc. in addition to other features such as the emergency assembly point(s) and emergency equipment.

3 Site Operations

The current EP allows the following activities to be carried out at the facility:

- R13 – Storage or waste pending any of the operations numbered R3 and R5;
- R3 – Recycling/reclamation of organic substances which are not used as solvents; and
- R5 – Recycling/reclamation of other inorganic compounds.

Treatment of waste (as listed in Table 2.1 of the EP) consists only of sorting, separation, screening, crushing, and blending of waste as a soil, soil substitute or aggregate. Secure storage of waste is permitted, pending this treatment. The facility currently processes glass and construction and demolition waste and subjects it to crushing and screening to produce separate stockpiles of graded secondary aggregate and soils.

The applicant wishes to augment and expand operations at the site to:

- Add a new, second, Waste Operation to the EP. This comprises the treatment of inert waste through the existing processing plant to the east of the current activity. The existing processing plant is shown in Figure NTS1. This is not permitted as it does not currently process waste materials, only virgin aggregates from the adjacent Kennetholme Quarry. The quarry is at the end of its life; the proposal is to bring inert waste materials through it. The introduction of waste materials brings it into the permitting regime. The existing plant will be augmented by way of additional conveyors and the installation of a wash plant which in turn is supported by a new water treatment plant (WTP) enabling the recycling of the wash water. The WTP is a physical process (a filter press). As for the primary treatment process that is already permitted, the use of the existing processing plant for waste and the wash plant and WTP activities are also a Waste Operation as they facilitate the physico-chemical treatment of non-hazardous waste for the purposes of recovery.
- Increase the throughput of the site, from 15,000 to 120,000 tonnes per year. The increase in treatment capacity does not change the status of the Waste Operations as both are physico-chemical treatment of non-hazardous waste for the purposes of recovery (this is not covered by either Section 5.4 Part A(1)(a)(ii) or Section 5.4 Part A(1)(b)). This increase allows for the treatment capacity that is gained by the processing of inert waste through the existing processing plant.
- Add seven new waste codes (see details in Section 2.3.1 below).
- Increase the EP Boundary to include the existing (unpermitted) processing plant and stockpile areas.

Following processing of the waste in either (or both) treatment lines, and following confirmatory composition testing, the material is a product not a waste and can be transferred off site as such.

The site follows a set of Standing Operating Procedures (SOPs), against which compliance is regularly checked. SOPs for the proposed new operations are currently being developed.

3.1 Operational Overview

A description of the two Waste Operations is provided in the following sections. Regular checks are undertaken to ensure that operations are being undertaken in accordance with the SOPs and the EP.

3.1.1 Treatment of Glass and C&D Waste (Waste Operation 1)

Waste destined for Waste Operation 1 (glass and C&D waste) is received at the site, loose, in bulk. Following waste acceptance checks, it is unloaded into a stockpile in that processing area, pending treatment. It is then moved to the screening equipment for processing. The processed output is stockpiled, by grade, in the aggregate storage area to the southwest.

3.1.2 Treatment of Inert Waste in Aggregate Plant (Waste Operation 2)

Waste destined for Waste Operation 2 is received at the site, loose, in bulk. Following waste acceptance checks, it is unloaded into the feedstock storage area to the east of the processing plant, at the eastern boundary of the EP area. Waste is moved to the smaller feedstock storage area on a continuous basis to ensure there is material in place ready for processing during operational hours.

Visible oversized material (>80 mm) will be removed and stockpiled. The waste material will be loaded onto the pre-screen (to remove fines <2 mm). The remaining screened feedstock will be conveyed to the feed belt and will move to the 'Rinserdeck' where it will be washed. There is a trash screen at this point in the process. This is a vibrating deck screen that removes any small organic fraction from the aggregate. From here, the material moves to a log wash which is a twin screw mechanical process (with water feed) that separates minerals from clays. The aggregate is then processed through the existing processing plant using a series of screens to separate it into various grades, from <10 mm, through 10 – 20 mm, 20 – 40 mm, to oversized >50 mm. Wash water from this screening and washing of the incoming waste stream will be directed to the WTP which will remove the silt from it by way of a filter press.

The spent wash water (silt laden) from the washing and screening of virgin aggregate in the existing plant passes to a sump. A pump located within the sump, then pumps the wash water to a settling pond. With the introduction of aggregate washing, the wash water will be more silt laden, and therefore the intention is to remove the silt from the water to allow the water to be reused in the wash plant.

The layout and process flow avoids any unnecessary double handling of materials.

3.2 Risk Assessment

The facility will be operated in accordance with the ERA provided in the EP application (Appendix 7, ref. GR_2021_02/02). This is a qualitative risk assessment which identifies the potential hazards, their pathways to causing harm, and the likelihood of them happening alongside the consequences if they do. The output of the ERA has led to the development of both a Dust Management Plan and Noise Management Plan, these are presented in Appendices 9 and 10 of the variation application respectively. The latter has been written following the completion of a Noise Impact Assessment.

This is further augmented by an Aspects and Impacts Assessment, the output of which is used to determine the most significant aspects and impacts; these drive the setting of environmental objectives and targets. This assessment is reviewed annually.

3.3 Storage of Waste

Wastes stored at the site are limited to those allowed to be received under the EP, and any process outputs (in this case, product not waste). Permitted wastes for receipt are defined in the EP by EWC code and basic description. Waste storage is only in the designated areas, as shown on the Site Layout Plan which forms part of the IMS.

3.4 Waste Acceptance

Grundon currently operates the site in accordance with procedures for both pre-acceptance and waste acceptance. Compliance with these ensures that waste arriving at the site is as expected, as described in the accompanying duty of care paperwork, and is therefore permitted for acceptance, storage and treatment.

3.5 Fire Prevention Plan

The incoming waste is not considered to be combustible, and a Fire Prevention Plan has therefore not been considered necessary for the EP application. Grundon has established, implemented, and maintains processes to prepare for emergency situations, including fire, at the site and to respond if they occur (see Section 6 below).

The appointment of fire wardens ensures that there are sufficient staff with specific roles in the event of an environmental emergency. All other team members are provided with awareness instruction and training (e.g., fire extinguisher use) where required.

4 Site and Equipment Maintenance Plan

Records of inspections, repairs and maintenance are kept on site and used to verify that those checks have been undertaken in accordance with the IMS. The scheduling of maintenance is either prescribed by:

- The supplier/manufacturer of the equipment
- Relevant legislation (e.g., inspection of fire-fighting equipment)
- Other relevant guidance (e.g., sector guidelines/best practice).

Regular checks are undertaken to ensure that maintenance and inspection is being carried out, and to ensure that the integrity of equipment is maintained. A process is in place to ensure equipment is inspected and tested, and that a preventative maintenance procedure/plan is maintained. This is documented within procedure MP/GR/GEN/010e "Mobile and Static Plant Inspection, Defect Reporting and Rectification".

5 Contingency Planning

The details provided in EP documents, site plans, risk assessment, and the majority of the IMS relate to measures that are in place during 'normal' operations i.e. when the facility can be operated as it is designed to do.

Grundon requires appropriate sites to have a Business Continuity Plan, as per procedure MP/GR/GEN/021a. The plan for Kennetholme details the critical functionality of the facility and lists the hazards that could impact on this, for example:

- Lack of staffing leading to inability to receive/treat/transfer waste
- Natural events (storms, floods, pandemics etc.) leading to closure of site or increased waste across existing contracts that exceeds the permitted site capacity
- Loss of water or mains power

In the event of the facility being unable to continue 'normal' operations, Grundon has a contingency plan in place which will be activated to ensure that waste can continue to be managed appropriately.

6 Accident Prevention and Management Plan

This forms part of the IMS. The site has an emergency plan, covering the requirements of the whole site (within ownership boundary) not just the permitted activities. It includes the following procedures and information:

- Emergency Plan Site Details
- Emergency Contacts
- Actions in the Event of a Fire
- Dealing with Casualties
- Dealing with Minor Liquid Spillages
- Dealing with Solid Spillages
- Actions in the Event of Trespass
- Actions in the Event of a Bomb Threat
- Locations of Emergency Equipment
- Fire Extinguisher Code
- Site Plans
- Liaising with Regulatory Enforcement Bodies
- Isolation of Main Supplies to Site
- Actions on Discovery of Munitions in Waste Stream or Location.

The emergency plan is reviewed on a regular basis (a minimum of every 2 years) and also updated as required following any incidents, changes to process, or to reflect changes in legislation or best practice.

Waste stored at the facility is limited to those allowed to be received under the EP and is defined in the EP by EWC code and basic description. Dedicated waste storage locations are shown on the Site Layout Plan. Site procedures require waste acceptance and tracking processes to be followed. As a result, in the event of an emergency, the operator can identify (and is able to provide the emergency services with) details of the waste present on site at the time of the incident (estimated quantity, source/producer).

Training is provided to the operational staff; roles and responsibilities are clearly defined.

The Grundon SHEQ Incident reporting system enables clear reporting and investigation of incidents, all documents obtained during the process is stored within the record, such as witness statements, photos etc.

7 A Changing Climate

Whilst the existing plans for the facility are based on the existing climate, it is recognised that a changing climate may introduce conditions that could affect operations in the future. The following changes could reasonably be expected:

- Higher average temperatures
- More heat waves and hot days
- Rising sea levels
- Changes in rainfall patterns and intensity
- More storms

The UK Climate Projections (UKCP) provides up to date information of these possible changes. This provides projections on a localised basis. The EA has produced sector guidance notes on completing an 'adapting to climate change risk assessment' which sets out possible impacts and mitigation measures to consider when preparing the risk assessment. The guidance for 'Non-Hazardous and Inert Waste Treatment' sector has been used for the Kennetholme site.

The climate change risk assessment (ref. CA-KEN-QO-001 Kennetholme Quarry CCRA), as for other management system documents, is reviewed on a regular basis and updated if required.

8 Complaints Procedure

The complaints procedure follows the guidance on management systems for environmental permits and includes measures to be taken to address any concerns, near misses, potential for or actual pollution whether that is to the land, air, water, or a perceived nuisance to staff, public and neighbours. It sets out how the operator will receive and record compliant, investigate them, and act upon them.

All records of complaints are recorded on the Feedback Log, in accordance with procedure MP/GR/GEN/019 "Managing Feedback including Complaints".

The complaints procedure, as for other management system documents, is reviewed on a regular basis and updated if required.

9 Managing Staff Competence and Training Records

EA guidance requires the operator of a permitted facility to have a training system in place for all relevant staff that includes EP awareness for their work activities; awareness of potential environmental effects from operation under normal and abnormal circumstances, awareness of need

to report deviation from the EP, and prevention of accidental emissions and action to be taken when they occur.

The Grundon IMS complies with the requirements of the CMS, which are documented in MP/GR/GEN/036a "Technical Competence Policy/Procedure". All employee training records are maintained on the on-line system which also sends reminders for refresher training.

Any contractors that are engaged to work on the site will receive a site induction prior to undertaking their work.

The IMS ensures personnel are trained and therefore able to effectively retain operational control and minimise the potential for impacts on the environment. The appointment of fire wardens ensures that there are sufficient staff with specific roles in the event of an environmental emergency.

Training includes making all employees aware of the EP, IMS policy, manual and supporting documents, and their contribution to the effectiveness of it.

10 Keeping Records

Records pertinent to the operation of the site are kept; this includes documents demonstrating compliance with the IMS (including operational procedures, maintenance requirements, accidents, incidents, non-conformances, and complaints), updates to site documents (including site condition report, specific management plans), and other records required by the EP (including waste returns, environmental monitoring data, duty of care checks etc.).

This is covered by MP/GR/GEN/007a "Document Control Policy/Procedure". In accordance with the EP all records retained will be legible, made as soon after the activity to which they relate as is reasonably practicable, and be retained for at least 6 years from the date they were made or (in the case of records relating to off-site environmental impacts and matters that might affect the condition of the land and groundwater within the EP boundary) until the EP is surrendered.

If records are amended, the original must remain legible or be able to be retrieved. EP records will be kept on site, and electronically on the Grundon SHEQ system. Once printed, documents are no longer considered to be controlled versions.

A copy of the EP is kept at the site, both in hard copy and electronically on the Grundon SHEQ system, and all staff have access to it and to a copy of the IMS. Where changes are made to any site documentation in relation to procedures, this is communicated to the site team for their information and understanding.

11 Management System Review

The IMS is a set of live documents which are subject to change during the life of the site and the EP. Changes may come about as a result of one or more of the following:

- A change in process/operations that needs to be reflected in the procedures and management plans;
- A change in procedure following an incident, accident, or complaint; or
- A change in legislation or guidance that affects the activities and/or the management system.

Should any of the above occur, a review of the management system is carried out. In any case, the IMS is reviewed by top management (directors and senior managers) at least every 6 months.

The review is carried out to ensure that the system remains suitable for the facility, is adequate, and is effective in minimising the risk of pollution from the permitted activities. It is also an opportunity to review the previous period's performance in terms of non-conformances, audits, incidents, compliance with the EP and any external communications such as complaints.

Records of all reviews are kept in accordance with Section 10 above.

12 Site Closure

This part of the EA management system guidance relates to operators of landfills and category A mining waste facilities so is not largely applicable. The operator will however complete the site closure parts of the Site Condition Report at the point of cessation of operations and surrender of the EP.

13 Communication

With respect to internal communication, procedures are in place to ensure that relevant environmental information is communicated to all personnel that undertake work on behalf of the company, including the environmental policy, relevant aspects, relevant objectives and targets, relevant risks, roles and responsibilities, and the environmental emergency action plan. This is supported by training and awareness provision. The IMS also makes provision for the sharing of relevant information to management and operational personnel regarding incidents, non-conformances, audit feedback, monitoring results, and any amendments made to the IMS due to changes in legislation or other environmental requirements.

With respect to communication with external interested parties on environmental issues, the IMS sets out the type of communication, the potential external parties (regulator, key customers, neighbours, local authority etc.), and how to respond to those including how to determine the relevant course of action.