Great Billing Quarry

Environmental Permit Application

Operating Techniques

Mick George Limited

December 2022

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 that would be in place at the site.

1.1.2 Mick George seeks to gain a bespoke waste disposal permit and disposal permit for the permanent deposit of inert waste at Great Billing Quarry (the site). The purpose of the works is to infill the quarry void that will be created following mineral extraction activities as approved under planning permission that was granted by Northamptonshire County Council (reference 17/00053/MINFUL).

1.1.3 This Environmental Permit application has been prepared by Tetra Tech on behalf of the Operator, Mick George Limited (Mick George).

1.2 SITE SETTING

1.2.1 The application site is situated to the east of the Great Billing Water Recycling Centre (WRC) and is located approximately 3km east of Northampton on the south side of the dual carriageway A45. To the north west of the application site but separated from the site by the dual carriageway A45, is the settlement of Great Billing which is part of the larger Northampton urban area (nearest homes in Great Billing are approximately 400m).

1.2.2 Also, to the north beyond the A45, is the village of Ecton (nearest homes at approximately 800m) and North east is the village of Earls Barton, over 1km from the site. The River Nene and ponds lie to the south, approximately 400m from site. Further south, beyond the River Nene, lies the village of Cogenhoe, whose closest properties are approximately 800m.

1.2.3 Immediately to the west of the extraction site is the Great Billing Water Recycling Centre (WRC), which is owned by Anglian Water and serves the Northampton area, and an area designated as a waste management site that is partially developed for this use.

1.2.4 The northern boundary of the application site in the central parts reaches almost to the A45 just south of Ecton Lane where is crosses the A45. In other parts of the site the northern boundary is separated from the A45 by open land including an area of mature trees and agricultural land. The southern boundary adjoins restored former mineral workings, comprising water bodies, beyond which is the River Nene. The western

boundary of the extraction area is partly formed by an overland drain. Barton Brook forms the eastern boundary of the site and flows south to join the Nene.

1.2.5 The site is centred at approximate National Grid Reference (NGR) SP 83190 62010. The site location and the environmental permit boundary is shown on Drawing Number MGL/B029956/PER/01.

2.0 OPERATING PROCEDURES

2.1 PERMITTED ACTIVITIES

2.1.1 The proposal comprises the importation of inert waste for infilling of the quarry void that would be created following mineral extraction activities at the site.

2.1.2 The works would be completed in accordance with the approved restoration plan (Drawing G13/20/01, Revision B) that was formally discharged by NCC in connection to Conditions 23 and 24 of planning permission 17/00053/MINFUL. The restoration of the site will include a combination of natural habitats in the southern part of the site including reedbeds, wet and neutral grasslands, hedgerows and waterbodies. Areas of arable land with additional boundary features will be included in the northern part of the site.

2.1.3 It is considered that the proposed activities at the site would fall under the following Recovery and Disposal codes shown in Table 1, provided for in Annex II to Directive 2008/98/EC of the European Parliament and The Council of 19th November 2008 Waste.

Table 1: Proposed R/D Codes

R/D Code	Activity Description
D1	Deposit into or on to land (e.g., landfill, etc.)

2.2 OPERATING HOURS

2.2.1 In accordance with Condition 5 of planning permission 17/00053/MINFUL, site operations (exc. Water pumping, plant servicing and environmental monitoring of plant) would be limited to the following hours:-

- 07:00 to 18:00 on Mondays to Fridays;
- 07:00 to 13:00 on Saturdays; and
- At no other times or on Sundays, Bank or Public Holidays.

2.3 WASTE TYPES

2.3.1 Waste is defined as *'Any substance or object the holder discards, intends to discard or is required to discard'* under the Waste Framework Directive (European Directive 2008/98/EC), which repeals the European Directive 75/442/EC as amended.

2.3.2 Permitted wastes accepted at the site will be strictly inert as classified under the Landfill Directive (1999/31/EC) and Council Decision (2003/33/EC) of 19th December 2002 *'establishing criteria and procedures for the acceptance of waste landfills and are set out in Table 2'.*

2.3.3 Inert waste is defined in Article 2 of the Landfill Directive 1999/31/EC as follows:-

'Inert waste' means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm to human health. The total leachability and pollutant content and the ecotoxicity of its leachate are insignificant and, in particular, do not endanger the quality of any surface water and/or groundwater. Table 2 lists those wastes that may be accepted at the site which do not require Waste Acceptance Criteria (WAC) testing under Council Decision (2003/33/EC), provided that they are inert and from a single source only (mixed loads from more than one site cannot be accepted without testing).'

2.3.4 Table 2 lists those wastes that may be accepted at the site which do not require Waste Acceptance Criteria (WAC) testing under Council Decision (2003/33/EC), provided that they are inert and from a single source only (mixed loads from more than one site cannot be accepted without testing).'

Table 2: Proposed Waste Types that do not require Testing

EWC Code	Description
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOILS FROM CONTAMINATED SITES)**
17 01	**Concrete, Bricks, Tiles And Ceramics**
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
17 05	**Soil (Including Excavated Soil From Contaminated Sites) Soil And Dredging Spoil**
17 05 04*	Soil And Stones Other Than Those Mentioned In 17 05 03
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES INLCUDING SEPARATELY COLLECTED FRACTIONS**
20 02	**Garden And Park Wastes**
20 02 02	Soil And Stones

**Selected construction and demolition waste with low contents of other types of materials (like metals, plastic, soil, organics, wood, rubber etc). The origin of the waste must be known.*

- No C&D waste from construction, polluted with inorganic or organic dangerous substances e.g. because of production processes in the construction, soil pollution, storage and usage of pesticides or other dangerous substances etc., unless it is made clear that the demolished construction was not significantly polluted.

- No C&D waste from constructions treated, covered or painted with materials, containing dangerous substances in significant amounts.

- The origin of the wastes must be known and they will have low contents (<5% by mass per load of other types of materials (like metals, plastics, soil, organics, wood, rubber, etc).

2.3.5 In addition to the wastes that are listed in Table 2, Mick George propose to accept the waste codes listed in Table 3 below and will be subject to WAC testing as detailed in Section 2.5.

Table 3: Proposed Waste Types that will Require WAC Testing

EWC Code	Description
01	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**
01 04	**Wastes From Physical And Chemical Processing Of Non-Metalliferous Minerals**
01 04 08	Waste Gravel And Crushed Rocks Other Than Those Mentioned In 01 04 07
01 04 09	Waste Sand And Clays
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION / INDUSTRIAL WASTE**
19 12	**Wastes From The Mechanical Treatment Of Wastes**
19 12 09	Minerals (For Example Sand, Stones)
19 12 12	Other Wastes (Including Mixtures Of Materials) From Mechanical Treatment Of Wastes Other Than Those Mentioned In 19 12 11
19 13	**Wastes from soil and groundwater remediation**
19 13 02	Solids wastes from soil remediation other those mentioned in 19 13 01

2.4 WASTE QUANTITIES

2.4.1 The restoration of the site will require approximately 1,000,000m^3 of material to be brought to the site. When using a bulk density conversion factor of 1.6 tonnes/m^3 this equates to approximately 1,600,000 tonnes. In terms of annual throughput, It is proposed that up to 200,000m^3 (or 320,000 tonnes) of material would be brought to the site each year.

2.5 WASTE ACCEPTANCE PROCEDURES

2.5.1 Wastes would only be accepted onto the site if they comply with the list of wastes included in the permit. All vehicles delivering waste would be licensed waste carriers and each delivery must be accompanied by a relevant Waste Transfer Note, consistent with fulfilling the company's responsibilities under the provisions of the Duty of Care.

Basic Characterisation (Level 1)

2.5.2 Basic characterisation would ensure that the waste is suitable for acceptance at the regulated facility. The

information to be supplied at this stage includes:-

- Source and origin of the waste;
- Information on the process producing the waste;
- Appearance of the waste, e.g. physical form; and
- The List of Wastes (England) Regulations 2005 code.

2.5.3 The wastes listed in Table 2 may be accepted at the site without testing provided that there is confirmation that they are single stream loads from known reliable sources and that they are accompanied by the required information. Wastes which are required to be tested will be assessed by the waste producer in line with the WAC limits for inert waste as detailed in Table 4. In addition, the leaching limit values for organic parameters specified in Table 5 will be applied.

2.5.4 Loads that contain wastes from multiple streams may be accepted together, provided they are from the same source, comply with the waste types specified in the permit and are accompanied by the required information.

Table 4: Waste Acceptance Criteria Thresholds For Inert Wastes That Require Testing

Determinand	Symbol	L/S = 10l/kg Mg/kg dry substance
Arsenic	As	0.5
Barium	Ba	20
Cadmium	Cd	0.04
Total Chromium	Cr total	0.5
Copper	Cu	2
Mercury	Hg	0.01
Molybdenum	Mo	0.5
Nickel	Ni	0.4
Lead	Pb	0.5
Antimony	Sb	0.14
Selenium	Se	0.2
Zinc	Zn	4
Chloride	Cl-	800
Fluoride	F-	10
Sulphate(a)	SO_4^{2-}	3,030
Phenol index	PI	1
Dissolved Organic Carbon(b)	DO	500
Total Dissolved Solids	TDS	5,000
(a) The limit value for sulphate may be increased to 6,000 mg/kg, provided that the value of C0 (the first eluate of a percolation test at L/S = 0.1 l/kg) does not exceed 1,500 mg/l. It will be necessary to use a percolation test to determine the limit value at L/S = 0.1 l/kg under initial equilibrium conditions. (b) If the waste does not meet this value for Dissolved Organic Carbon (DOC) at its own pH value, it may alternatively be tested at L/S = 10 l/kg and a pH between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 500 mg/kg.		

(c) The value for Total Dissolved Solids can be used alternatively to the values for Sulphate and Chloride.

Table 5: Additional Waste Acceptance Criteria Thresholds (Organic Parameters)

Parameter	Value mg/kg
Total Organic Carbon (TOC)(a)	30,000
BTEX compounds (benzene, toluene, ethyl benzene & xylenes)	6
Polychlorinated biphenyls (PCBs) (7 congeners)	1
Mineral oil (C10 to C40)	500
PAHs (polycyclic aromatic hydrocarbons)	100
(a) In the case of soils, a higher limit value may be permitted provided a Dissolved Organic Carbon value of 500 mg/kg is achieved at L/S 10 l/kg at the pH of the soil or at a pH value of between 7.5 and 8.0.	

On Site Verification

2.5.5 Each load of waste delivered to the site shall be, where possible, visually inspected before unloading by the weighbridge operator to confirm the material matches the description on the Waste Transfer note. Each load would be inspected after unloading. These inspections would ensure that the waste conforms to the description compiled as part of the basic characterisation.

2.5.6 If there is uncertainty regarding the acceptance of wastes at the site, testing may be required. No wastes would be accepted onto the site if there is uncertainty as to its source, conformance with the conditions in the environmental permit and/or its suitability for the intended use.

2.5.7 All site staff would be made aware of the waste acceptance procedures and would be trained in the procedures with dealing with non-conformances. The Site Manager would be responsible for ensuring that the procedures are implemented appropriately.

2.6 UNAUTHORISED AND REJECTED WASTES

2.6.1 Any loads or part loads identified as unacceptable upon discharge of the load shall be reloaded into the container and isolated whilst the Environment Agency are contacted by telephone. The most appropriate course of action shall then be agreed with the Environment Agency.

2.6.2 Any load or part load identified as unacceptable upon discharge of the load when the haulier has exited the site shall be isolated or quarantined on the site. The Environment Agency shall be kept informed of the subsequent course of action.

2.6.3 The following details of the rejected waste would be kept on site:-

- Time and date of incident;

- Haulier and vehicle registration number;
- Customer;
- Waste type; and
- Reason for rejection.

2.6.4 For small quantities of paper, plastic, wood and metal, a skip or similar container would be located near the operational area for the operator to dispose of such materials. The skip would be removed from site once full and taken to a permitted facility for disposal or recovery where appropriate.

2.6.5 Records would be kept of all rejected loads and these would be made available to the Environment Agency.

3.0 REGULATED FACILITY INFRASTRUCTURE

3.1 SITE ACCESS

3.1.1 Access to and from the site will be through the neighbouring Anglian Water Recycling Centre to Crow Lane, which joins the A45.

3.2 WEIGHBRIDGE AND WHEEL CLEANING FACILITIES

3.2.1 The site will benefit from a wheel wash which will be used by HGVs before they leave the site. The wheel cleaning facility would be checked on a monthly basis and any necessary work would be carried out as soon as practicable. In the event of a breakdown with prolonged downtime, additional road cleaning equipment would be provided.

3.2.2 In addition, the site will benefit from a weighbridge which will be used to facilitate the site's waste acceptance procedures.

3.3 FUEL TANKS

3.3.1 Tanks for fuel, oil and lubricants would be provided on site, and they would be appropriately bunded (with 110% capacity). These would allow the quick and efficient fuelling and repair of the site machinery. All filling points, vents, gauges and sight glasses would be located on hardstanding within a bunded area.

3.3.2 The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework shall be located above the ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund. The tanks would be maintained and inspected in accordance with the manufacturer's recommendations.

3.4 SECURITY

3.4.1 All vehicles delivering waste to the site would be required to 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.

3.4.2 A sign would be located at the site entrance detailing the name, address and telephone numbers of the permit holder, emergency contact numbers, site operating hours and the contact details of the Environment Agency. Any permanent changes to these details would be updated within 30 days. The sign would be

located so that it does not encourage fly tipping and would be maintained in a satisfactory condition at all times. Signs would be erected on peripheral fences giving warnings of operations at the site.

3.4.3 A notice board would be maintained in the site reception area. A copy of the Environmental Permit and a copy of the company's 'Health and Safety Policy' would be displayed, together with any other relevant notices. A copy of all documents accompanying this application, detailing all site procedures would be kept in the site office.

3.4.4 The site would be secured from the public highway by substantial lockable gates at the site entrance and all reasonable precautions would be taken to prevent the unauthorised entry of the general public and the unauthorised depositing of wastes. Lighting would be installed around the refuelling and weighbridge areas which are to be intruder activated.

4.0 EMISSION CONTROL

4.1 POINT SOURCE EMISSIONS TO AIR

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

4.2 POINT SOURCE EMISSIONS TO GROUNDWATER

4.2.1 There would 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 would 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

5.0.1 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 that accompanies this application.

5.0.2 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.

5.1 FIRE CONTROL

5.1.1 The acceptance of inert waste is considered unlikely to cause a fire 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.

5.1.2 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 at least once a year by a competent person. The site would be designated as a “no smoking area” and signed accordingly.

5.1.3 Any fire on the site would be treated as an emergency and would be extinguished at the earliest opportunity. If necessary, the Fire Service would be summoned. Any incidents of fire would be reported to the Environment Agency and recorded in the Site Diary.

5.2 SPILLAGE PROCEDURE

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

5.2.2 In the event of a spillage of fuel/oil from site machinery or vehicles, the following procedures would 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 would be recorded in the Site Diary.

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

6.0 SITE MANAGEMENT

6.1 TECHNICAL COMPETENCE

6.1.1 The site would 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.

6.2 MANAGEMENT SYSTEM

6.2.1 The operator, Mick George, has a certified Environmental Management System (EMS) in place which is compliant with the requirements of ISO 14001. A copy of the company's ISO 14001 Certificate is provided as Appendix B of this document and a summary of the EMS contents is provided as Appendix C. The operator may update their EMS procedures from time to time to reflect working practice which would take precedent over the details contained herein.

6.2.2 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 Mick George Ltd has a Management System which is compliant with ISO 14001 and this includes procedures for the management of documentation.

7.1.2 A record would be kept that provides details on all wastes deposited at the site. This would include details on waste types, quantities and the date of deposition. This would be provided to the Environment Agency 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 would be maintained in the site office.

7.1.3 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 operation at the site, and this would 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 would be kept in a convenient location, allowing access for any person that may be working at or visiting the site.

7.2 MAINTENANCE OF RECORDS

7.2.1 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.

8.0 INCIDENTS AND NON-CONFORMANCES

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

8.1.2 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.

8.1.3 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.

DRAWINGS

MGL/B029956/PER/01 - Environmental Permit Boundary

G13/20/01 (Revision B) – Restoration Strategy Plan

APPENDIX A

Certificate of Technical Competence

APPENDIX B

ISO 14001 Certificate

APPENDIX C

Environmental Management System Summary