ENVIRONMENTAL PERMIT APPLICATION
SUPPORTING STATEMENT

STURTON LE STEEPLE QUARRY
STURTON LE STEEPLE
RETFORD
NOTTINGHAMSHIRE
DN22 9HW

Document Reference: AI1017/08.R0
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ENVIRONMENTAL PERMIT APPLICATION – SUPPORTING STATEMENT STURTON LE STEEPLE QUARRY,STURTON LE STEEPLE, RETFORD, NOTTINGHAMSHIRE

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ENVIRONMENTAL PERMIT APPLICATION

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1.0 INTRODUCTION

1.1 Scope & Background

1.1.1 Sirius Environmental Limited ('Sirius') has been commissioned by Aggregate Industries UK Ltd ('AI') to prepare an application for an Environmental Permit for an inert mining waste operation at a new sand and gravel quarry near Sturton le Steeple, Nottinghamshire. The applicant is also seeking to consolidate the existing Consent to Discharge NPSWQD006845 into this new Environmental Permit. The relevant documentation is submitted in accordance with the Environmental Permitting (England & Wales) Regulations 2016 (referred to hereafter as the EP Regulations).

1.1.2 AI are seeking to gain a permit to operate an inert mining waste operation at a new sand and gravel quarry near Sturton le Steeple, Nottinghamshire. The quarry as a whole will extract and process sand and gravel. The mining waste operation being applied for covers only the areas in which mining wastes will be deposited in the form of silt from the processing of the minerals. The mining waste will consist of inert silts washed out from the processing of the mineral. Deposition of the mining waste at the site will consist of the settling out of the silt in lagoons for recovery to support the restoration of the quarry, with the process waters recycled into the washing plant.

1.1.3 There are two separate areas being applied for, a Western Area and an Eastern Area. These will be areas containing silt lagoons in which the mining waste will be deposited. Freshwater lagoons will receive surface water and waters which no longer carry silt. The freshwater lagoons will be used for processing and potentially the refilling of the recharge trench to the south.

1.2 Site Setting

1.2.1 The proposed site to which the application will relate is located near Sturton le Steeple, Retford, Nottinghamshire, DN22 9HW. The two areas are centred on National Grid References (NGR): SK 81153 84408 and SK 81638 84067. The site location has been depicted in **Drawing No. AI1017/05/01**.

1.2.2 The site areas are currently agricultural fields set between the village of Sturton le Steeple and the River Trent to the east. They will become a part of and immediately adjacent to the wider quarry working. Entrance and egress to and from the site for heavy good vehicles will be via a haul road to the northwest a junction on Gainsborough Road. However, no material is to be brought on or taken off site for the purpose of the mining waste operation except for the initial deliveries of the plant machinery. The site entrances are gated and will be locked outside of operational hours.

1.2.3 The proposed permitted boundary areas are depicted in **Drawing No.: AI1017/05/02**. The site is bound by agricultural land which will become part of the quarry development. The unclassified roads; Middle Lane and North End Lane pass by and around the site.

1.2.4 Sturton le Steeple lies 2.3 km west. The village of Knaith lies 1.2 km east-northeast but lies across the River Trent. The wider surrounding area comprises agricultural land with scattered residential dwellings. West Burton Power Station lies 1.8 km northwest of the site. The town of Gainsborough is situated approximately 5 km north of the site.

1.2.5 The closest residential properties to the permitted site are Toll Bar Cottage ~830m south, Snaith Hall Cottage ~1050m to the east-northeast, Littleborough

Farm ~1570m to the southeast and Low Holland Cottage, 1175m to the west. The remainder of the surrounding area is occupied predominantly by agricultural land.

1.2.6 The local topography is flat but punctuated by deep ditches draining the Trent river floodplain.

1.2.7 The site does not lie within 2km of an Area of Outstanding Natural Beauty (AONB), Local Nature Reserve (LNR), National Nature Reserve (NNR), Ramsar site, Special Protected Area (SPA), Ancient Woodland, or Source Protection Zone (SPZ).

1.2.8 The site lies within the 'Trent from Carlton-on-trent to Laughton Drain' Surface Water Drinking Water Protected Area.

1.2.9 The west area lies withing the 'Catchwater Drain' catchment of the River Trent Nitrate Vulnerable Zone (NVZ) and the east area lies in the 'Seymour Drain' catchment of the River Trent Nitrate Vulnerable Zone. These areas are designated as being at risk from agricultural nitrate pollution. The designations are made in accordance with the Nitrate Pollution Prevention Regulations 2015.

1.2.10 One Local Wildlife Site borders the site. Mother Drain Local Wildlife Site follows the line of the mother drain watercourse.

1.2.11 Deciduous woodland, coastal and floodplain grazing marsh, and reedbeds are also present within 2km in all directions, the closest of which is 275m west of the west. Deciduous woodland is a protected priority habitat.

1.3 Summary of Environmental Permit Application

1.3.1 AI are applying for a bespoke Environmental Permit to operate a mining waste operation for the deposition of inert silts produced from washing of quarried sand and gravel. The proposed Environmental Permit boundary is shown in **Drawing No.: AI1017/05/02**.

1.3.2 AI also seek to consolidate the existing Consent to Discharge NPSWQD006845 into the new Environmental Permit. Therefore, a Part B6 form will not be submitted at initial application due to the regulations already imposed on the consent to discharge.

1.3.3 The operation will be receiving mining wastes which have been excavated from the quarry and processed. The waste will be placed back into some of the voids created to quarry the resource. The maximum storage capacity of the operation is expected to be ~478,800 m^3.

1.3.4 Basic Pre-Application Advice was sought (Ref: EPR/MP3824SZ/P003) which advised on the required application forms, the required supporting documents and provided a nature and heritage screening. According to the Environment Agency (Environmental Permitting) (England) Charging Scheme (2022; v1.0), the application falls under Section 1.16.12 – 'Inert mining waste operation.'. The associated fee for this application is £2,767.

1.3.5 This Supporting Statement has been written to outline the proposed activities at the site as well providing a summary of the Environmental Management System (EMS) to be implemented to manage potential environmental risks proposed by the inert mining waste operations. This Environmental Permit Application (EPA) comprises the following documents:

- Application Forms (Parts A, B2, B5, and F1)
- Non-Technical Summary
- Supporting Statement
- Waste Management Plan
- Environmental and Accident Risk Assessment
- Supporting Drawings

2.0 PROCESS CONTROLS / ACTIVITIES

2.1 Permitted Wastes and Quantities

2.1.1 The permit being applied for will encompass mining wastes arising from the processing of the sand and gravel of the surrounding quarry.

2.1.2 The maximum storage capacity of the operation is expected to be ~478,800 m^3.

2.2 Waste Storage

2.2.1 All waste deposited at the mining waste operation will consist of the process waters laden with suspended silts washed out from the sands and gravels.

2.3 Waste Storage & Treatment

2.3.1 Following deposition of the silt slurry into the ponds, the silt will settle out to form a solid layer at the bottom of the lagoon. In the western area, the water will cascade through two silt ponds and into the 'freshwater lagoon'. Likewise in the eastern area, the water will cascade from the single silt lagoon into the other 'freshwater lagoon'. The desilted water will then be recycled into the washing plant for reuse.

3.0 EMISSIONS CONTROL & MONITORING

3.1 Introduction

3.1.1 An effective system of management techniques will be employed at the site to ensure there are no potential fugitive or uncontrolled emissions that could cause environmental concern. An Environmental & Accidents Risk Assessment is provided with this application (*Doc. Ref: AI1017/07)*

3.2 Emissions to Air (excluding odours)

Emissions Control

3.2.1 There are no point source emissions to air associated with the permitted activities.

3.2.2 The operation will accept and process wastes that have the potential to generate dust or particulate emissions. Processed waste will be stored in the form of a silt slurry or deposited underwater and not in contact with the air.

3.2.3 There is a potential for the silts to become mobilised sub-aerially if the lagoons ever dry out. This is unlikely to occur as the constant requirement to dewater the quarry operations ensures a constant supply of water is available. However, should this occur, measures can be implemented to wet the lagoon by spraying or covering with suitable sheeting until they can be refilled with water.

3.2.4 The long-term restoration scheme for the lagoons comprises wetland habitats which will minimise the long-term fugitive dust generation potential.

3.2.5 In the unlikely event that dust levels become problematic, procedures are in place to address this. Site personnel will use suitable Personal Protective Equipment (PPE). Good housekeeping will be conducted within the site to ensure that the build-up of potentially dusty material which may be disturbed and scattered is prevented.

Emissions Monitoring

3.2.6 Visual inspections for evidence of any significant emissions of dust will be carried out continuously by operational staff and daily by the site management or other nominated persons. Meteorological conditions and any emissions to air will be recorded by the TCM or responsible person should the TCM be off-site.

3.3 Emissions to Water

Emissions Control

3.3.1 There is one point source emission to surface water associated with the permitted activities.

3.3.2 All the surface waters from the permitted site drain into the western ‘freshwater’ lagoon. This ensures that the emissions to water will be captured in order to protect the condition of the underlying soils and strata, groundwaters and surface waters from the any leaks and spills of potentially polluting substances.

Emissions Monitoring

3.3.3 All surface water drains to the lined surface lagoon. The lagoon will be monitored weekly for any visible oil or grease. Should any be visible the source will be investigated.

3.3.4 The monitoring schedule for the consent to discharge (Doc. Ref. NPSWQD006845) is reproduced here:

- **1.3 Sampling Point Requirements**
  - *1.3.1 A sample point shall be provided and maintained at National Grid Reference SK 80904 84653 as shown marked "SAMPLE POINT" on the Site Plan attached to this consent, so that a representative sample of the Discharge may be obtained. The Consent Holder shall ensure that all constituents of the Discharge pass through the said sampling point at all times and in any legal proceedings it shall, for the purposes of Section 10 of the Rivers (Prevention of Pollution) Act 1961, be presumed, until the contrary is shown that any sample of the Discharge taken at the said sampling point is a sample of what was discharging into controlled waters.*
- **1.4 Volume**
  - *1.4.1 The volume of the Discharge shall not exceed 7300 cubic metres per day.*
- **1.5 Flow Measurement**
  - *1.5.1 a At the request of the Agency, the Consent Holder shall install, operate and maintain a means of flow measuring to a specification and at a location required by the Agency, to enable the daily volume and/or instantaneous flow of effluent through the settlement lagoon to be recorded. b The Consent Holder shall calibrate, operate and maintain the flow monitoring and recording system to a standard agreed or specified by the Agency. The flow and maintenance records shall be provided to the Agency as and when requested.*
- **1.6 Rate**
  - *1.6.1 The rate of discharge shall not exceed 113 litres per second*
- **1.7 Composition**
  - *1.7.1 The Discharge shall not contain more than 60 milligrammes per litre of suspended solids (measured after drying at 105o C).*
  - *1.7.2 As far as is reasonably practicable, the settlement lagoons shall be operated so as to prevent the Discharge from containing any significant trace of visible oil or grease.*

3.3.5 The integrity of the engineered surfaces and drainage systems will be inspected periodically. Any damaged area will be assessed to determine if any pollution of the land will have occurred and a record maintained in the site diary.

3.4 Odour

Emissions Control

3.4.1 The proposed waste types to be accepted at the facility will not have a significant putrescible content and therefore it is not considered likely that a high risk of odour will be present.

Emissions Monitoring

3.4.2 The TCM / Supervisor or other nominated personnel will carry out weekly olfactory monitoring around the site and its boundaries to determine if any wastes present at the site are generating significant odours.

3.4.3 A general daily odour inspection will be conducted. All staff are required to report to management should there be a significant odour. The results, along with meteorological conditions, will be recorded in the site diary and kept in the site office.

3.5 Noise

Emissions Control

3.5.1 The waste operations will generate low levels of noise and have low potential to cause nuisance. Any noise is mitigated by the topography of the surrounding site and the nearest residential dwelling being >800m away.

3.5.2 It should be noted that the surrounding land uses primarily comprise industry and agriculture, none of which are sensitive receptors to noise. The closest residential properties to the permitted site are Toll Bar Cottage ~830m, Snaith Hall Cottage ~1km to the east-northeast, Littleborough Farm ~1.6km to the southeast and Low Holland Cottage, ~1.2km to the west. The remainder of the surrounding area is predominantly agricultural land. Therefore, residential properties in the locality are situated at a significant distance from the site whereby noise would be unlikely to affect them.

3.5.3 It is therefore considered that potential noise emissions are unlikely to generate complaints at nearby sensitive receptors.

Emissions Monitoring

3.5.4 Given the nature of the proposed operations and the proximity of potential noise sensitive receptors, it is not necessary to undertake instrumental noise monitoring.

3.5.5 The Quarry Manager (or nominated deputy) will undertake daily review of the noise levels being generated by all mechanical plant/equipment. Noise that is likely to lead to unacceptable emissions off site will be noted and a record made. An attempt will be made to identify the source of the noise and ensure it is ameliorated or otherwise removed off site. A record will be made of such incidents and the corrective actions taken.

3.6 Scavengers, Insects and Other Pests

Emissions Control

3.6.1 None of the proposed mining waste is putrescible in nature and, therefore, provide a very low potential for attracting scavengers and pests.

3.6.2 Should insects posing a nuisance be observed at site, insecticides offering rapid knock-down and long-term treatment shall be utilised.

3.6.3 A record of all incidents related to pests are kept in the site diary.

Emissions Monitoring

3.6.4 Due to the low risk of scavengers and pests being attracted to the site, monitoring of the site for signs of infestations of scavengers, insects and other pests will be conducted periodically. Furthermore, site operatives will be told to report any signs of infestations that they observe while carrying out their daily tasks. If any evidence of such infestations are observed, this will be noted and reported to the Quarry Manager, TCM or nominated deputy who will action control measures to rectify the issue as soon as practicable. Any incidents will be noted in the Site Diary.

3.7 Litter

Emissions Control

3.7.1 The mining waste has an extremely low potential for litter due to the nature of its origin and processing.

Emissions Monitoring

3.7.2 Due to the low risk of litter emanating from the site, dedicated monitoring for litter is not deemed necessary. The site operatives and staff will report any signs of litter immediately with daily site checks and inspections also carried out. In the unlikely event that litter is observed, actions will be taken immediately to identify the source, conduct litter picking and record the incident in the Site Diary.

3.8 Mud and Debris

Emissions Control

3.8.1 There is a low potential for mud and debris to be placed anywhere other than the lagoon into which it will settle. The lagoons are topographical low points which will not be driven on or through by plant. Sufficient freeboard levels will be maintained during the operation life of the silt lagoons.

3.8.2 It is possible that the silts may be mobilised by flooding events, however a flooding event large enough to mobilise the silts will already have high levels of mud and debris being carried within it.

Emissions Monitoring

3.8.3 In order to ensure the silts do not muddy the roadways, a periodic inspection of the public highway will be undertaken by the TCM / Supervisor or other trained personnel as directed by the TCM at times when the facility is open for receiving or dispatching wastes. Details of the inspections and any remedial measures taken will be recorded. These are likely to overlap with operations required for the quarry.

4.0 MANAGEMENT SYSTEMS

4.1 Environment, Health, Safety and Quality System

4.1.1 The Facility will operate under the ISO14001 system of management currently employed by the operator, Aggregate Industries UK Ltd.

4.1.2 Audits and inspections will be conducted to a suitable standard to meet the requirements of the management system and performance will be reported annually to the EA as per the requirements of the Environmental Permit.

4.1.3 Records will be kept of all items required by the Environmental Permit, other legislation and operating procedures.

4.2 Competence

4.2.1 The Quarry Manager will hold the relevant qualifications and experience required under the Quarry Regulation to ensure that an appropriate level of competence is provided to support the operation of the mining waste operations.

4.3 Training

4.3.1 Any new employees are given full induction training by the Quarry Manager or other appropriately qualified person(s) as appointed by the Quarry Manager.

4.3.2 Additionally, staff and operatives will receive training to ensure they can perform their role competently.

4.3.3 The assessment of competences of staff is made by the Quarry Manager or other appropriately qualified person(s) on an ongoing basis. All staff are trained to ensure that they are competent to undertake their respective duties. Particular attention is given to familiarisation of staff with the Environmental Permit for the site, the potential emissions from the site and the prevention of accidental emissions. Training will be tailored to individual requirements.

4.3.4 An induction and personal training plan is developed for each individual and is regularly updated to reflect staff needs and skills.

4.4 Operating Procedures

4.4.1 A number of specific standard operating procedures which cover the onsite activities at the proposed mining waste operation will be developed in line with other sites with similar operations run by AI. Copies of these standard operating procedures are held by Aggregate Industries. These will be periodically reviewed and updated where deemed necessary.

4.5 Maintenance Procedures

4.5.1 A documented maintenance schedule is developed in accordance with equipment suppliers and manufacturer's recommendations. Any plant that is used will be hired with a full repair/maintenance contract (which includes oils, greases etc) incorporating specified response times to reduce downtime. An inspection regime is developed for each piece of plant in order to visually inspect condition and identify immediate repair requirements.

4.6 Records

4.6.1 A record of the types and quantities (in tonnes) of wastes treated by the operation will be maintained. All Duty of Care documentation in relation to waste movements will be kept for 5 years.

4.6.2 The following significant events at the facility will be recorded, as detailed below:

- Maintenance;
- Breakdowns;
- Emergencies;
- Problems with waste received and action taken;
- Operation inspections;
- Attendance of technically competent management at the operation;
- Despatch of records to the Agency;
- Severe weather conditions;
- Complaints received;
- Visitors to the facility;
- Pest or vermin incidents;

4.6.3 The Quarry Manager or nominated person will maintain a record of all the above information in the site log or on inspection forms, as appropriate. Records relating to significant events will be kept for up to 6 years, or where involving off site environmental effects or pollution of land or groundwater until permit surrender.

4.6.4 All records and copies of inspection forms will be kept at the facility at all times and will be available for inspection at all reasonable times by any authorised officer of the EA.

4.6.5 The facility records may be kept either as:

- Hand generated log;
- Computer generated hard copies; or
- Computer permanent storage media.

4.6.6 To ensure the security of records they will be housed in either locked containers or kept in offices that shall be locked when not attended.

4.6.7 Records will be disposed of in accordance with company policy, which shall ensure an appropriately secure method e.g., shredding and recycling, where feasible.

4.7 Visitors

4.7.1 Persons visiting the facility will be required to report to the site office. A record of the time and reason for their visit will be logged in the signing-in book. Visitors entering the working areas will be briefed and inducted with respect to facility safety and accompanied where necessary.

4.7.2 All visitors will be made aware of the requirement for Personal Protective Equipment (PPE). No person will be allowed entry to the facility without the correct protective equipment. The facility employees are responsible for the Health and Safety of all visitors and will ensure that they are given sight of a copy of the Health and Safety Plan and are made aware of any potential threats to their safety or welfare.

4.7.3 There will be additional induction requirements for contractors visiting site that are providing a service or undertaking works such as maintenance. A permit to work system will be employed for more hazardous maintenance activities to ensure compliance with health and safety requirements.

4.8 Site Inspections and Audit

4.8.1 Every working day, site inspections will be conducted of the operational working areas. The facility shall be inspected on every working day by the Quarry Manager or other nominated persons for defects in plant, equipment or structure or in any working practice that may affect satisfactory compliance with the Environmental Permit. Inspections shall be undertaken by staff suitably qualified and/or experienced in the day-to-day operation of the facility.

4.8.2 The above-described daily monitoring will aid in the identification of significant emissions, including noise, dust and odour.

4.8.3 Should an on-site problem be identified, the Quarry Manager or nominated person will arrange for the appropriate mitigation technique to be applied as soon as is reasonably practicable.

4.8.4 Should a fugitive emission source be identified as being outside the Environmental Permit Boundary of the proposed site, then the Quarry Manager/TCM or appointed deputy will make contact with the operators of the facility containing the emission source and inform them accordingly, where this is able to be identified.

4.8.5 Records shall be kept of daily inspections and shall be made available for inspection as reasonably required by authorised officers of the EA. Any defects shall be rectified promptly.

4.8.6 In addition, under the environmental management system, the site is subject to both internal and external audit. Copies of the audits will be kept in the site office.

4.9 Site Security

4.9.1 All reasonable precautions are taken to prevent unauthorised access to the site.

4.9.2 Access to the facility will be via a metalled road - Gainsborough Road west of the site. Exit from the site will be to the west, onto Gainsborough Road and northbound.

4.9.3 The site will have gates and fencing to prevent trespassing on the site. Furthermore, the site will be locked outside of operational hours to prevent unauthorised access.

4.10 Site Identification Board

4.10.1 A site identification board is attached to the frontage of the site detailing the following information:

- The permit holder’s name (company name) and permit number;
- An emergency contact name and the permit holder’s telephone number;
- A statement that the site is permitted by the Environment Agency; and
- The Environment Agency incident hotline 0800 80 70 60

4.10.2 The site identification board will be inspected on a weekly basis and any damage repaired within 7 working days for minor repairs and for major repairs at a timescale agreed with the Environment Agency. Details of any damage and repairs undertaken are recorded in the Site Diary.

4.11 Complaints

4.11.1 Any complaints relating to the operation will be managed as follows:

- Details of the complaint and the complainant will be logged in the Site Diary and electronically.
- The complaint will be investigated. Corrective actions and preventative actions will be undertaken where the source of the complaint can be identified and is attributable to activities undertaken at the facility.
- The details of the action taken will be reported back to the complainant. This will include cases where the complaint is unsubstantiated i.e. the complaint fails to be linked to any activity occurring at the facility. All investigate works and compliant outcomes will be recorded in the Site Diary.

4.12 Staff Welfare Facilities

4.12.1 Staff rest and wash facilities are situated adjacent to the site offices.

4.13 Non-Compliances

4.13.1 The TCM involved in waste checks will be trained to effectively identify and manage non-conformances in the material received, complying with EA Guidance and any permit conditions.

4.14 Health and Safety

4.14.1 The company recognises the importance of Health and Safety for both its staff and visitors to its facility. The company will develop appropriate Health and Safety practices for the site.

4.15 Accidents / Incidents / Non-Conformances

4.15.1 The likelihood and consequences of accidents and associated preventative / mitigating measures are presented in the Environmental and Accident Risk Assessment for the site *(Doc Ref: AI1017/07).*

4.15.2 Aggregate Industries has written procedures for handling, investigating, communicating and reporting of potential non-compliances and environmental complaints and associated remedial actions. In summary, any non-compliances identified onsite will be reported to the EA within 24 hours. Details of the non-compliance and corrective actions will be recorded on appropriate recording forms and held electronically for a period no less than two years. Any records of non-compliance will be archived until Environmental Permit surrender.

4.15.3 Daily site inspections will be conducted by the Quarry Manager or other nominated representatives for defects in plant, equipment or structures or in any working practice that may affect satisfactory compliance with the Environmental Permit. Inspections shall be undertaken by staff suitably qualified and/or experienced in the day-to-day operation of the facility. The main points of inspection shall include:

- Waste storage levels

- Waste type storage area separation
- Cleanliness
- Site emissions
- Leakages / Spillages
- Monitoring data (where relevant)
- Plant condition
- Integrity of site surfacing, drainage systems and security provisions, where applicable

4.15.4 Should a problem be identified, the Quarry Manager will arrange immediate repair or other appropriate remedial action.

4.15.5 Records shall be kept of daily inspections and shall be made available for inspection as reasonably required by authorised officers of the EA. Any defects shall be rectified as soon as reasonably practicable.

4.16 Climate Change Adaption Planning

4.16.1 Following the 'Non-hazardous and inert waste treatment: examples for your adapting to climate change risk assessment' (Updated 17 May 2023) from the Environment Agency, the primary potential risks to the site concerning climate change are identified as follows:

- Summer daily maximum temperature
- Daily extreme rainfall
- Average winter rainfall
- Sea level rise
- Drier summers
- River flow
- Storms

Summer daily maximum temperature

4.16.2 Higher summer maximums may bring a greater potential for fire if the temperature exceeds the rated working temperature of the equipment in operation at the site, in particular electrical equipment. The management plan must ensure the equipment is sufficiently shaded or cooled for operation.

4.16.3 They will also cause a higher likelihood of dust emissions from processes, stockpiles and site roads. These can be mitigated by increased or adapted dust suppression techniques which will be included in the management plan.

4.16.4 Increased risks of drought may impact the water supplies for the site. This may increase the risk of fugitive dust emissions due to lack of wetting of the silts. As a result, alternate dust suppression measures will need to be planned and other methods of retaining and conserving water can be sought.

4.16.5 Wildfire risk will increase with the increased temperatures. The management system needs to account for how the potential ignition sources will be monitored and how this may affect the surroundings of the site.

Daily Extreme Rainfall

4.16.6 Increased extreme rainfall requires potential mitigation for any future events that may overwhelm the drainage systems at the site and cause the surface water lagoon(s) to overflow.

Average Winter Rainfall

4.16.7 Increased average winter rainfall may cause the surface water lagoon(s) to overflow. Monitoring and review of the capacity of the lagoon(s) should be reviewed for future potential for overtopping and improvement measure implemented as appropriate.

Sea Level rise

4.16.8 Increasing sea levels may pose a risk to the site as it is a low lying area of land with an elevation of approximately 3m above sea level. The rise of sea level may lead to a change in the nearby River Trent changing behaviour or course and threaten the workings.

Drier summers

4.16.9 Increased risks of drought may impact the water supplies for the site. This may increase the risk of fugitive dust emissions due to lack of wetting of the silts. As a result, alternate dust suppression measures will need to be planned and other methods of retaining and conserving water can be sought.

River flow

4.16.10 Increased river flows may prove a risk for the ability of the site to discharge water into the river. The management of the site will ensure that the planned discharges take into account both their permit limits and the physical restriction of the river levels. Pumping may be required instead of purely gravitationally driven flow.

Storms

4.16.11 The increased likelihood of storms brings a greater risk of high winds that may be damaging to the site infrastructure and create conditions for fugitive emissions, especially dust. However, storms typically occur coincidentally at or around times of precipitation, which will ensure the lagoons are not dry when a storm occurs. In addition to this, the site management will ensure that sufficient water is kept in the lagoons.

5.0 ACCIDENTS & THEIR CONSEQUENCES

5.1 Emergency Planning

5.1.1 An Environmental and Accidents Risk Assessment (EARA) *(Doc. Ref.: AI1017/07)* has been prepared in support of this application. The matrix identifies potential hazards at the facility, the likelihood and consequence of an accident or emergency relating to hazards, and the risk management measures that will be put in place to ensure that risks are reduced to an acceptable level.

5.2 Emergency Contact

5.2.1 In the event of any significant environmental emergency / incident, a representative of Aggregate Industries will notify the EA by telephone immediately but first having due regard for the incident at hand and any remediation actions required to ensure the safety of site personnel and the immediate environment.

5.2.2 Details of any environmental incident will be confirmed to the EA in writing by e-mail on the next working day after identification of the incident. This confirmation will include: the time and duration of the incident, the receiving environmental medium or media where there has been any emission as a result of the incident, an initial estimate of the quantity and composition of any emission, the measures taken to prevent or minimise any further emission and a preliminary assessment of the cause of the incident.

5.2.3 Any incident notified to the EA will be investigated and a report of the investigation sent to the EA. The report will detail, as a minimum, the circumstances of the incident, an assessment of any harm to the environment and the steps taken to bring the incident to an end. The report will also set out proposals for remediation and for preventing a repetition of the incident.

5.3 Control of Fires

5.3.1 No waste will be burned within the confines of the site boundary. All fires in the site the operation will be treated as a potential emergency and dealt with accordingly. Fires may occur in relation to:

- Plant failure – fixed or mobile plant fires
- Wildfires

5.3.2 If the fire can be controlled without endangering operatives, appropriate actions will be undertaken using available fire-fighting equipment. Fires will be tackled by a minimum of two facility operatives.

5.3.3 In the event that a large fire occurs at the facility, the following actions would be undertaken:

- Person(s) discovering the fire will raise the alarm.
- Report the incident to the TCM / Supervisor.
- All site personnel and visitors will be accounted for and evacuated to a safe location.
- Contact the emergency services and state the nature of the incident.
- Ensure access is clear for the emergency services but prevent access to the facility from anyone else until the emergency is over.
- Follow all instructions given by the emergency services.
- The EA will be informed forthwith of any fires that occur at the facility.

5.3.4 All mobile plant vehicles will be equipped with fire suppression.

5.3.5 All fire-fighting equipment at the facility will be clearly marked and tested, at appropriate intervals, to confirm their suitability and functionality. Site personnel will be made aware of the locations of all fire-fighting equipment and will be trained in their correct use.

5.3.6 A record of the occurrence of a fire will be maintained in the site log, along with any actions taken. An Incident and Accident Report will be completed by the TCM / Supervisor.

5.3.7 Following approval by the fire services and / or TCM, any residues from the fire will be disposed of accordingly at a suitable permitted waste management facility.

5.4 Flooding

5.4.1 The Environment Agency's flood zone mapping shows that the site lies within a Flood Zone 3 which is described as having a 'high probability' of flooding (greater than 1 in 100 annual event).

5.4.2 The following actions may be taken by the Quarry Manager or other designated person where flooding from any source presents a risk to the site:

- If possible, all stocks of chemicals / fuel will be removed from the risk areas.
- All plant will be removed from the area at risk.

5.4.3 Facility operatives will not attempt to enter the flooded area until a risk assessment has been undertaken or the flood has subsided.

5.4.4 It is unlikely that flooding will considerably mobilise the silts that have settled in the lagoon. A flood of that magnitude would be carrying a large amount of silt in suspension in and of itself and the environmental effects would be dominated by the wider flooding.

5.5 Control of Leaks and Spillages

5.5.1 All necessary measures will be taken to contain any spillage or discharge by means of suitable material and equipment. The actions undertaken will depend on the size of the spillage, the location of the spillage in relation to sensitive receptors and the nature of the spilled material.

5.5.2 Where spillages of dry wastes occur, these will be cleared by either manual or mechanical means, for example handpicking, sweeping or shovelling, dependant on the size and location of the spillage.

5.5.3 Minor spillages of liquid will be contained using spillage kits or any suitable readily available absorbent material, e.g. chipped wood product. This material will be disposed of in a manner appropriate to the type of material absorbed. Materials from used from spill kits will be replaced.

5.5.4 If a major spillage of liquid occurs the following actions will be undertaken, where appropriate:

- Report the occurrence to the TCM / Supervisor immediately;
- Trained facility operatives will take immediate action to try and contain the leak where it is safe to do so.

- If it is safe to do so, the cause of the spill or leak will be isolated and / or moved to a bunded area.
- If the liquid spillage is large, inert material such as clay or sandbags will be used to make a temporary containment bund to prevent pollution of any surface water, land or groundwater. The TCM / Supervisor or designated person will contact the EA to discuss best practicable disposal options.
- Access to the immediate area should be restricted until a disposal/clean up solution is implemented.
- If the spillage cannot be contained using approved methods, senior management will be contacted immediately and specialist advice and help will be sought.
- If a vehicle is identified as leaking, wherever practicable, it will be stored on an impermeable pavement within a bunded area, where the spillage can be contained until such time as a repair is affected.

5.5.5 The Environment Agency will also be informed in accordance with the permit requirements of major spillages, having due regard to first take appropriate measures to deal with any emergency in hand.

5.5.6 The locations of spillage kits and other emergency equipment will be detailed within the Site Emergency Plan.

5.6 Investigation of Accidents & Incidents

5.6.1 For any accident, incident or dangerous occurrence, an 'Incident and Accident Report' will be completed by the Quarry Manager. All relevant details of the accident, incident or dangerous occurrence will be recorded, together with any additional statement, photographs, logs or records that may assist in the full investigation of the accident, incident or dangerous occurrence.

5.6.2 After an Environmental Incident and Emergency has been made safe, an investigation will be conducted, if necessary, by the Quarry Manager and other Personnel as appropriate.

6.0 REPORT CLOSURE

6.1.1 This report has outlined the proposed process controls, activities and management systems for the site, as well as the emission controls and monitoring to be conducted during the operational period of the site. Cognizance has also been given to accidents and their consequences.

6.1.2 The supporting appendices and drawings to this report are included in the following sections.

APPENDIX SS1
Consent to Discharge
NPSWQD006845

Consent to Discharge

Water Resources Act 1991 (as amended by the Environment Act 1995)

Consent Holder	**Lafarge Aggregates Limited** **Granite House** **Granite Way** **Syston** **Leicester** **Leicestershire** **LE7 1PL**
Company Registration Number	**00297905**
Consent to Discharge from	**Sturton Le Steeple Quarry** **Off Cowpasture Lane** **Sturton Le Seeple** **DN22 0HB**
Consent Number	**NPSWQD006845**

Environment Agency, Permitting Support Centre, PO Box 4209, Sheffield, S9 9BS
Customer services line: 08708 506 506
Email: enquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

Consent to Discharge

Consent Number
NPSWQD006845

To:
Lafarge Aggregates Limited ("the Consent Holder")
Granite House
Granite Way
Syston
Leicester
Leicestershire
LE7 1PL

Company Registration Number: 00297905

The Environment Agency ("the Agency") in pursuance of its powers under the Water Resources Act 1991 (as amended by the Environment Act 1995) hereby consents to the making of a Discharge:

Of:
Trade effluent consisting of site drainage, process water and water from the prevention of interference with mineral working ("the Discharge")

From:
Site operations

At:
Sturton Le Steeple Quarry, Off Cowpasture Lane, Sturton Le Steeple

To:
The River Trent

Subject to the conditions set out in this Consent to Discharge.

Subject to the provisions of Paragraphs 7 and 8 of Schedule 10 of the Water Resources Act 1991 (as amended by the Environment Act 1995), no notice shall be served by the Agency, altering this consent, without the agreement of the Consent Holder, during a period of 4 years from the date this Consent takes effect.

This Consent is issued on: 12th day of June 2009

This Consent takes effect on: 1st day of April 2011

Signed

D. M. Cheetham

Permitting Team Leader

1 Conditions of Consent for trade effluent consisting of site drainage, process water and water from the prevention of interference with mineral working

1.1 Nature

1.1.1 The Discharge shall consist solely of trade effluent consisting of site drainage, process water and water from the prevention of interference with mineral working.

1.2 Place of Discharge

1.2.1 The Discharge shall be made in the manner and at the place specified as:

a discharging to the River Trent;

b discharging via a 150mm pipe;

c at National Grid Reference SK 80933 85699;

d shown marked “DISCHARGE POINT” on Site Plan attached to this consent.

1.3 Sampling Point Requirements

1.3.1 A sample point shall be provided and maintained at National Grid Reference SK 80904 84653 as shown marked “SAMPLE POINT” on the Site Plan attached to this consent, so that a representative sample of the Discharge may be obtained. The Consent Holder shall ensure that all constituents of the Discharge pass through the said sampling point at all times and in any legal proceedings it shall, for the purposes of Section 10 of the Rivers (Prevention of Pollution) Act 1961, be presumed, until the contrary is shown that any sample of the Discharge taken at the said sampling point is a sample of what was discharging into controlled waters.

1.4 Volume

1.4.1 The volume of the Discharge shall not exceed 7300 cubic metres per day.

1.5 Flow Measurement

1.5.1 a At the request of the Agency, the Consent Holder shall install, operate and maintain a means of flow measuring to a specification and at a location required by the Agency, to enable the daily volume and/or instantaneous flow of effluent through the settlement lagoon to be recorded.

b The Consent Holder shall calibrate, operate and maintain the flow monitoring and recording system to a standard agreed or specified by the Agency. The flow and maintenance records shall be provided to the Agency as and when requested.

1.6 Rate

1.6.1 The rate of discharge shall not exceed 113 litres per second

1.7 Composition

1.7.1 The Discharge shall not contain more than 60 milligrammes per litre of suspended solids (measured after drying at 105^{o}C).

1.7.2 As far as is reasonably practicable, the settlement lagoons shall be operated so as to prevent the Discharge from containing any significant trace of visible oil or grease.

1.8 Site Operation

1.8.1 a The site shall be operated and the effluent treated in a manner which, so far as reasonably practicable, minimises the pollution effects of the Discharge on controlled waters.

b This condition does not require:

i any higher standard to be achieved in relation to any characteristics of the Discharge which is specifically regulated by Conditions 1.7.1 and 1.7.2 than is required by those conditions;

ii any alteration of the site or a change on the type of treatment used.

1.9 Maintenance

1.9.1 The settlement lagoons shall be operated and maintained in accordance with good operational practice. The lagoons shall be desludged at sufficient frequency to maintain their effective operation and in such a manner to prevent excessive carryover of suspended solids.

1.10 Recording and Reporting

1.10.1 a The Consent Holder shall establish and operate a documented maintenance programme and record all non-routine actions undertaken that may have adversely affected effluent quality. Copies of the programme shall be made available for inspection by the Agency's officers at all reasonable times.

b On request the Consent Holder shall supply the Agency with a written report on the maintenance and all non-routine actions that may have adversely affected effluent quality.

2 Site Plan